

## COVID-19 Impact on Parental Emotion Socialization and Youth Socioemotional Adjustment in Italy

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This study examines the change and associations in parental emotion socialization strategies in response to children's negative emotions and youths' adjustment, comparing before the Covid-19 pandemic hit Italy and since the pandemic began. Participants were convenient cross-sectional/normative (Study 1) and clinical/longitudinal (Study 2) samples of Italian parents whose children were in middle childhood and adolescence. In Study 1, self-reported socialization strategies, youths' maladjustment, and emotion dysregulation increased since the pandemic began. Whereas, in Study 2, socialization strategies and youths' maladjustment decreased since the pandemic started. In both studies, unsupportive parental emotion socialization predicted youths' maladjustment and emotion dysregulation, while supportive parental emotion socialization predicted adaptive emotion regulation. This study advances knowledge about the impact of the Covid-19 pandemic on the family context.

Key words: Covid-19 – externalizing – internalizing – negative emotions – parental emotion socialization

The Covid-19 pandemic has increased the likelihood for youths worldwide to be at risk for adjustment problems and develop worrisome trends for their future positive development (e.g., Jefsen, Rohde, Nørremark, & Østergaard, 2021). Italy was the first western country hit by the Covid-19 pandemic, and it is among the countries in Europe that were hit the hardest in terms of death rates. Italy

We thank all who participated in this research; in particular, the research assistants who helped gather data despite ongoing challenging daily life due to the Covid-19 pandemic. Special thanks to the dean, the professors and the students of the Roman High School Tullio Levi Civita for their active support in promoting the parental participation to this project. This study has been implemented also thanks to the participation of the Psychology Department, Sapienza University of Rome, to the so-called "Pathways for transversal competences and orientation" (Percorsi per le competenze trasversali e l'orientamento; PCTO; that is, projects promoted by the Italian Ministry of Education to integrate high school students' academic pathways with knowledge and experience of career practices, through a system of compulsory stages in private and public enterprises). This research has been funded by the Jacobs Foundation and Progetti Ricerca di Ateneo 2019, Sapienza University of Rome. The authors declare no conflicts of interest.

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was also the first European country to impose national lockdown restrictions on March 9, 2020. Since then, most schools have implemented lockdowns and completed the academic year virtually. With schools closed, parents have become full-time childcare providers and home-school teachers. This study aimed to: (1) examine significant differences in the mean levels of parental socialization strategies in response to youths' negative emotions and of youths' socioemotional adjustment before the Covid-19 pandemic started and since its onset in Italy; (2) examine the associations between parental emotion socialization strategies and youths' socioemotional adjustment during the Covid-19 pandemic in Italy; (3) examine the predictive effects of parental emotion socialization strategies in affecting youths' socioemotional problems and negative emotion (dys)regulation since the Covid-19 pandemic started.

Those aims have been pursued focusing on Italian parents of both a normative and a clinical sample of children in middle childhood and adolescence. Although previous studies have highlighted the significant associations among parent-

ing strategies, emotion regulation, and developing youths' adjustment (e.g., Morris, Silk, Steinberg, Myers, & Robinson, 2007), we are not aware of studies examining the impact of the Covid-19 pandemic on these associations. Therefore, this study attempts to increase knowledge about the changes that occurred in the family's life due to the Covid-19 pandemic and youths' emotional and behavioral problems, also providing important direction in terms of intervention programs aimed at preventing youths' maladjustment (or decreasing youths' clinically relevant symptoms), by acting on the family context, and in terms of future research directions.

### **Parental Emotion Socialization**

Parental emotion socialization (PES) includes the different ways through which parents express their emotional experiences and respond to their children's emotional expressions (Eisenberg, Cumberland, & Spinrad, 1998). Empirical research supports the presence of different strategies that parents may use to influence how their children experience emotions and deal with them (Parke, 1994). Furthermore, empirical evidence supports the significant effect of PES in explaining children's emotion regulation and social competence. As stated by Eisenberg et al. (1998), "parents who respond to their children's emotional expressions with behavioral reactions and negative emotions lead to negative emotionality of children and low social competence" (Eisenberg et al., 1998, p. 246). Eisenberg et al. (1998) proposed a heuristic model of PES that contributes to explaining parental emotion-related socialization behaviors. Accordingly, three types of parental emotion-related socialization behaviors have been offered: (1) parents' reactions to children's emotions, (2) parents' discussions about emotions, and (3) parents' emotional expression (Eisenberg et al., 1998).

Parental emotion-related socialization behaviors could affect different aspects of children's functioning, such as children's emotional experience, expression, and regulation (Eisenberg et al., 1998). In addition, parental expressiveness can affect children's ability to interpret and understand others' emotional reactions and their social skills (e.g., Cassidy, Parke, Butkovsky, & Braungart, 1992). Garside and Klimes-Dougan (2002) investigated emotional socialization strategies adopted by parents of adolescents in response to their offspring's negative emotions (anger, sadness, anxiety) reactions, using the Emotion as a Child Scale (Magai &

O'Neal, 1997). Results supported the presence of five principal supportive and unsupportive parental socialization strategies: "Reward," a supportive strategy that consists of helping and supporting their own children to deal with the negative emotion. This strategy includes parents' behaviors such as comforting a child when (s)he expresses sadness or empathizing with a child when (s)he is angry and assisting a child when (s)he is afraid (Klimes-Dougan et al., 2007). "Override" is a positive strategy adopted by parents to suppress children's emotional expression by distracting them or directing them to another emotion. This strategy includes parents' behaviors such as encourage the child to "rejoice" when he/she expresses sadness or tell him/her that "things are not that bad" when (s)he is angry or tell the child "not to be afraid" when (s) he is afraid (Klimes-Dougan et al., 2007). "Punish" is an unsupportive strategy characterized by disapproval and adverse reactions towards the children's expression of negative emotions. Specifically, it refers to parental behaviors such as expressing disapproval when faced with a child's sadness, telling a child to feel ashamed when (s)he is angry, and teasing a child when expressing fear (Klimes-Dougan et al., 2007). "Neglect" refers to the avoidant attitude of parents who simply ignore their children's emotions, and it includes parents' behaviors such as ignoring the child's expression of negative emotions or not be around the child's when (s)he is sad or angry (Klimes-Dougan et al., 2007). "Magnify" occurs when parents express strong emotions, which may or may not be congruent with the emotions previously expressed by their children. For example, a parent who magnifies negative emotions expressed by his/her child will become sad when him/her child expresses sadness, will be angry when his/her child expresses anger, and be frightened when his/her child expresses fear. Results from studies about the investigation of the psychometric properties of scales to assess the five PES strategies suggest that the "reward" and "override" strategies are generally facilitative and supportive strategies by comforting or strategizing with a child who deals with negative emotions. In contrast, the "punish," "neglect," and "magnify" strategies are considered inhibitory and unsupportive strategies by disapproving, avoiding, or exacerbating expressions of negative emotions (Garside & Klimes-Dougan, 2002; Klimes-Dougan et al., 2007).

Studies showed significant positive associations between supportive PES strategies and youths' positive adjustment and between unsupportive PES

strategies and adolescents' emotional and behavioral problems (Klimes-Dougan et al., 2007). Therefore, those authors suggested that supportive parental strategies may help children cope with negative emotions. In contrast, unsupportive parental strategies may contribute to obstacles to normative healthy emotional development in their offspring.

### **Parental Emotion Socialization and Youths' Socioemotional Functioning**

Parental emotion socialization strategies play an essential role in affecting children's onset of emotional and behavioral problems (e.g., Malatesta-Magai, 1991). Parents who are high in emotional coaching and supportive emotion socialization seem to favor developing their children's socioemotional competencies; in contrast, parents who usually exhibit high negative affect and emotional dysregulation may contribute to the onset of their children's emotional and behavioral problems (e.g., Denham et al., 2000). Among the empirical evidence supporting these associations, it emerged that parents' higher use of unsupportive emotional socialization strategies was positively associated with higher adolescents' internalizing and externalizing symptoms (Brand, 2001). Similarly, Garside and Klimes-Dougan (2002) showed a significant positive association between PES strategies, aimed to block youths' expression of negative emotions, and youths' psychological distress and antisocial behaviors. Moreover, Stocker, Richmond, Rhoades, and Kiang (2007) suggested that parental ability to coach their children's emotions and their positive attitude towards a family discussion about their children's negative emotion was associated with low adolescents' internalizing problems but was not correlated with externalizing problems. In addition, parents' negative emotional display was positively associated with high adolescents' adjustment.

Morris et al. (2007) conceptualized the so-called tripartite model of the impact of the family on children's emotion regulation and adjustment that supports the predictive effects of parental behaviors in determining later youths' emotional regulation and psychosocial adjustment. Emotion regulation is defined as the individual capability to maintain and to modulate the emotional experience, its intensity, and expression (e.g., Eisenberg, Spinrad, & Smith, 2004), and it has a vital role in affecting individual adjustment, especially in the transition from childhood to adolescence, which is a period

of increased intensity and frequency of negative emotions (e.g., Maciejewski, van Lier, Branje, Meeus, & Koot, 2017).

Morris et al.'s model embeds not just the conceptual model on PES strategies by Eisenberg et al. (1998), but also other studies focusing on the impact of parental emotion (dys)regulation and of parenting, on youths' emotional (dys)regulation and (mal)adjustment. For example, previous studies suggest that parental emotion dysregulated expression (which might be related to "magnify" PES) is associated with negative parenting (Eisenberg et al., 1998; Gudmundson & Leerkes, 2012). Other studies highlighted that authoritarian parenting, characterized by hostile parental behaviors and high psychological control (which might be related to "punish" PES), is associated with youths' low supportive emotional regulative strategies (e.g., Eisenberg, Fabes, & Murphy, 1996). In contrast, an authoritative parenting style characterized by high responsiveness, acceptance, and support (which might be related to "reward" and "override"), is positively associated with youths' adaptive emotional regulation (e.g., Yap, Schwartz, Byrne, Simmons, & Allen, 2010). Moreover, other studies have showed the mediating role of negative parenting in the association between parental emotional difficulties and youth socioemotional adjustment (e.g., Di Giunta et al., 2020; Shaw & Starr, 2019).

### **Adverse Contexts Affecting Family Functioning**

This section reviews the literature examining the impact of a family's higher-than-usual exposure to psychological stress on youths' adjustment.

Previous studies suggest that in family environments often characterized by threat, hostility, and conflicts, children have more problems adapting and regulating their emotions than those raised in non-threatening or hostile family environments (e.g., Pollak, Cicchetti, Hornung, & Reed, 2000). Moreover, Maršanić et al. (2014) found that clinically referred adolescent offspring of Croatian PTSD war veterans reported more internalizing and externalizing problems and more difficulties in their family functioning than non-PTSD veteran offspring. Therefore, empirical evidence is convergent in supporting the impact of highly adverse and stressful contexts both on the parents' behaviors and youths' (mal)adjustment.

On the other hand, when stressors are occurring, the family may serve a protective function contrasting the development of maladaptive outcomes. For

example, Katz and colleagues have found that, even in the context of domestic violence, children whose parents were high in emotion coaching and concerned about their children's emotionality showed fewer internalizing and externalizing symptoms than children whose parents were less supportive (Katz & Windecker-Nelson, 2006).

In line with the studies mentioned above, PES may have been affected by the uncontrollable force with which the Covid-19 pandemic has disrupted and continues to disrupt normative family functioning, lifestyle, and habits worldwide. Therefore, it is worthy of examining how both parental behaviors and youths' adjustment might have been affected by the radical lifestyle changes caused by the Covid-19 pandemic.

Indeed, the Covid-19 pandemic has caused a series of changes that can act as strong sources of stress in the family context. For example, the limited or no access to outdoor activities and the school closures may have impaired difficulties in carrying out recreational activities. That might be particularly likely in a context like the Italian one where families live in apartments and where "statistics show that Italians live in some of the smallest and most overcrowded homes in Europe"; The Local, 2020). In addition, the isolation or diagnosis of coronavirus infection, the difficulties in the job market, and the financial problems related to the pandemic have also increased mental health problems within the family context (Carroll et al., 2020; ISS, 2020). Thus, it is a high chance that this whole scenario may have increased the perceived family distress.

### **Covid-19 Pandemic in Italy**

On January 9, 2020, the World Health Organization (WHO) declared that the Chinese Health Authorities had identified a new type of coronavirus, never previously identified in humans, officially classified as SARS-CoV-2. This virus was associated with an outbreak of pneumonia cases registered on December the 31st, 2019, in the city of Wuhan, central China. Then, on February 11, 2020, the new respiratory disease was announced with the name Covid-19 (WHO, 2021). Symptoms of the Covid-19 (severe acute respiratory syndrome) vary based on the severity of the disease, from no symptoms (being asymptomatic) to having fever, cough, sore throat, headache, runny nose, weakness, fatigue, and muscle pain and in severe cases, pneumonia, respiratory failure, sepsis, and septic shock, potentially leading to death (WHO, 2021). On January

30, 2020, the Italian Higher Institute of Health reported the first two cases of Covid-19 infection in Italy, and on February the 21st the first autochthonous case (Italian Minister of Health, 2020a, 2020b). The respiratory disease of the Covid-19 has spread rapidly around the world, threatening the health of the general population and causing governments of various countries to implement restrictive measures to contain the virus aimed at limiting personal freedom and interpersonal contacts, which, in turn, have negatively affected the psychological health of many people throughout the world (De Miranda, Da Silva Athanasio, De Sena Oliveira, & Silva, 2020).

The epidemic scenario in Italy can be summarized in three phases (ISTAT, 2021). The first phase included the period between February and May 2020 (Covid-19's a 1st wave), characterized by very rapid diffusion of the contagion and by a strong territorial cases' concentration in the North of Italy (ISTAT, 2021). Then, from June to September 2020 (transition phase), the diffusion of the virus was initially minimal. Still, at the end of September, more and more outbreaks were identified throughout the country (ISTAT, 2021). Finally, from the end of September 2020 (Covid-19's 2nd wave), the contagion has again increased rapidly at an exponential rate over most of the country until a decline in the incidence occurred around December 2020 (ISTAT, 2021).

The epidemic curve of the Covid-19 in Italy indicates that the impact of the 2nd epidemic wave, in terms of the total number of notified daily cases, was higher than the 1st epidemic wave due to the increased of the diagnostic capability, which allowed for the identification of many asymptomatic or paucisymptomatic cases (characterized by fewer and less intense symptoms), and an epidemic diffusion throughout the national territory (ISTAT, 2021).

### **OVERVIEW OF THE PRESENT STUDIES**

The main aims of the present studies were three-fold: (1) examining potential significant differences in the mean levels of parental socialization strategies in response to youths' negative emotions and of youths' socioemotional adjustment before the Covid-19 pandemic started and since its onset in Italy; (2) examining the associations between PES strategies and youths' socioemotional adjustment during the Covid-19 pandemic in Italy; (3) examining the predictive effects of PES strategies in affecting youths' internalizing and externalizing

problems and youths' negative emotions (dys)regulation since the Covid-19 pandemic started.

The present studies offer a further contribution to the external validity of the scale to examine PES (Magai, 1996); second, these studies offer an innovative contribution to examine the impact that the Covid-19 pandemic may have had on PES (e.g., the consequences of the quarantine and forced cohabitation on the whole family system), which in turn is associated with youths' socioemotional functioning.

Therefore, two studies were designed to examine these objectives: Study 1 was cross-sectional and focused on a convenient sample of parents using concurrent and retrospective data; Study 2 was longitudinal and focused on a parents' sample of clinical youths.

In agreement with Caspi and Roberts (2001), individuals' personality development changes in response to implicit and explicit environmental contingencies that could encourage the actualization of new behaviors that are thought to be maintained over time. Therefore, in the specific environmental contingencies of the Covid-19 pandemic, we hypothesize that the changes in parental behavior due to the pandemic could serve as a behavioral model of change for youths that could significantly affect their own socioemotional development.

Parental dysregulation and negative practices could be influenced by negative contexts and high levels of stress (Shaw & Starr, 2019). Hence, the Covid-19 pandemic is hypothesized to have impacted parenting and family environment, and consequently also youths' risk for psychopathology onset, or more severe level of psychopathology, by increasing the perceived stress and the experience of negative emotions. In particular, we hypothesized a significant increase of parents' unsupportive strategies for the socialization of their children's negative emotions in the period since the Covid-19 pandemic started, compared to the period before the Covid-19 pandemic, and the same for the youths' levels of internalizing and externalizing problems. A potential explanation for those increasing trends may be related to the restrictions caused by the Covid-19 pandemic (e.g., the lockdown and the forced parent-child shared time at home), which may have increased the amount of distress experienced by both parents and youths. Thus, youths may have experienced higher levels of dissatisfaction of their developmentally normative needs (e.g., to hang out with their peers, the need for greater autonomy and independence from

their parents; Steinberg & Morris, 2001), whereas parents may have increased their unsupportive strategies toward their offspring's requests of support that, in turn, could have been associated to an increasing trend in youths' socioemotional problems.

However, some recent reports focusing on the U.S. youth population showed that youths were not always hit negatively by the quarantine-related context in which families have lived since the COVID-19 pandemic began. For example, examining longitudinal data in the U.S. youth sample, Luthar, Ebbert, and Kumar (2020) showed a significant initial decreasing trend in the pressure experienced by teenagers since the pandemic began. The authors commented that this could have been the case because, for example, of youths' more hours of sleep, less busy schedule of activities, and hours in which they were exposed to academic and social-related sources of pressure. Those authors also showed that, after the first couple of months since the pandemic began, particularly internalizing symptoms had risen again, especially among the older high school students. This up-to-date information reminds us of the exploratory nature of the goal we aimed to examine in the present studies.

Regarding the second objective, empirical evidence suggests that PES practices are significantly associated with youths' emotion regulation (Eisenberg et al., 1998). Accordingly, we hypothesized a significant positive association between unsupportive PES strategies and youths' negative emotion dysregulation; conversely, we also hypothesized a positive association between supportive PES strategies and youths' adaptive negative emotion regulation (e.g., Yap et al., 2010). Furthermore, according to studies that supported the importance of PES strategies in affecting youths' internalizing and externalizing problems, through their impact on youths' ability to cope with the negative emotions' experienced (e.g., Thompson, Boden, & Gotlib, 2017), we hypothesized to find significant positive associations between unsupportive PES strategies and both youths' internalizing and externalizing problems. Lastly, regarding the third objective, in accordance with the studies mentioned for the second objective about the associations between PES and youths' (mal)adjustment, it was hypothesized that unsupportive PES strategies before the Covid-19 pandemic started would positively and significantly predict youths' internalizing and externalizing problems and negative emotions dysregulation reported during the period since the pandemic

started, and that supportive PES strategies would positively predict youths' negative emotions regulation.

The aims of the present studies were examined in samples of youths whose age-range spans from middle childhood to adolescence. Zhang et al. (2020) showed a stable trend of PES over a 2-year period in a sample of families with at least one child aged 4–13 years and with at least one parent who had been deployed to recent conflicts in Iraq and/or Afghanistan. However, there are several studies that focused not specifically on what parents do in response to their children's emotional reactions (i.e., PES), but on parenting in general, showing an overall decreasing trend of both supportive/non-punitive (Bornstein, Rothenberg, & Lansford, 2021) and unsupportive/punitive parenting over time (e.g., Lansford et al., 2009). Thus, those parental styles and behaviors were less frequently enacted with adolescent children in comparison to when children were at younger phases of life. Those trends may be hypothesized to be similar also for both supportive and unsupportive PES. Such an overall decreasing trend may be due to a multitude of factors, such as (1) because parents are more prone to grant autonomy to their adolescent children than in earlier phases of life (e.g., Bornstein et al., 2021) (2) because parents have less time and opportunity to show their warmth and support to their offspring in adolescence in comparison to middle childhood (e.g., Eccles & Harold, 1993); (3) because adolescents are less open to being monitored and controlled by their parents in comparison to younger phases of life (Loeber, Burke, Lahey, Winters, & Zera, 2000); (4) because of lower parental warmth and support in adolescence in comparison to middle childhood, which in turn is associated with a higher rate of parent-adolescent conflicts in contrast to middle childhood (e.g., Branje, 2018).

Moreover, children's developmental phase of life may also affect children's behaviors over time. In a recent study, Bevilacqua, Kelly, Heilmann, Priest, and Lacey (2021) examined the developmental trend of externalizing and internalizing behaviors in a UK epidemiological sample from age 3–14, also examining the impact of adverse childhood events (ACE; including harsh parenting and physical punishment) on those developmental trends. On average, similarly for boys and girls, it emerged that both internalizing and externalizing problems increased by about age 14. In particular, the trajectories of both internalizing and externalizing problems for those who were exposed to more frequent

harsh parenting and physical punishment over time, remained at a higher level through to age 14 relative to those who did not report these ACEs. In particular, the association between harsh parenting and increasing child maladjustment over time could be explained by, for example, children emulating aggressive behavior modeled by parents (Gershoff & Bitensky, 2007), or children's attributions of self-blame or guilt feelings associated with lack of parental warmth and depression (e.g., Cummings, Davies, & Campbell, 2002).

Even though it is beyond the scope of this study to examine the developmental trend of PES over time, and it is beyond the scope of this study to compare whether there are similarities or differences between middle childhood and adolescence in the association between PES and children' internalizing and externalizing problems, aforementioned studies highlight the importance of examining such relationships controlling for children's age. In agreement with those studies, we hypothesized that parents of older children may show lower PES and may report higher rates of their offspring's behavioral problems than parents of younger children.

Finally, the overall objective of both Study 1 and 2 is to provide relevant implications that are helpful in understanding the degree to which contextual environmental challenges (e.g., Covid-19 pandemic; supportive and unsupportive parenting behaviors) may have differently affected youths with different profiles of (or lack of) former mental health problems. This overall goal has two tenets. First, the importance of examining the association between PES and youth socioemotional normal and abnormal development is in line with differential emotion theory, stating that "particular emotions and patterns of emotions function differentially in different periods of development and in influencing the cognition and behavior associated with different forms of psychopathology" (Izard, Fine, Mostow, Trentacosta, & Campbell, 2002; p. 761). Second, the importance of examining how the Covid-19 pandemic may have affected socioemotional development in children with different degree of vulnerability toward psychopathology is in line with theoretical hypotheses suggesting a certain degree of variability in individual responsiveness to the characteristics of the environment (e.g., differential susceptibility hypothesis, Belsky, 2005; diathesis-stress hypothesis, Ingram & Luxton, 2005). Even though it is not a goal of these studies to compare the relationships between PES and youth socioemotional adjustment between normally

and abnormally developing children, in line with recent studies showing that the effects of the Covid-19 pandemic were more severe in youths with former psychopathology (e.g., Jefesen et al., 2021), we hypothesized that the strength of the associations between unsupportive PES strategies and both youths' internalizing and externalizing problems would be higher in Study 2 (i.e., focusing on the clinical sample), than in Study 1 (i.e., focusing on a normative sample). The implementation of both studies can improve researchers and practitioners' broad understanding of how PES and youth socioemotional adjustment are related to each other, while taking into account youths' individual differences. Such a broad understanding would be precluded if focusing on just one sample, versus the other one. Indeed, using two separate samples with different profiles of youths' problem behaviors may boost the generalizability of these studies' results (Lansford et al., 2009).

## STUDY 1

### Method

**Participants.** This study involved a cross-sectional sample of 531 parents ( $M_{age} = 44.88$ ,  $SD = 7.52$ ; 81.2% mothers) of Italian youths collected during the pandemic ( $M_{age} = 12.60$ ,  $SD = 3.78$ ; 48.2% girls). Years of education were 15.21 ( $SD = 3.32$ ) for mothers and 15.53 ( $SD = 3.75$ ) for fathers (i.e., on average, parents completed the bachelor's degree years). In the sample, during the pandemic, 74.9% of mothers reported to work; among them, 69.8% worked full-time. Ninety percent of fathers reported working; among them, 90.5% worked full-time. About parents' marital status, 73.9% were married, 6.1% were divorced, 7.1% were separated, 1% were widowed, 10.7% were cohabitating, and 1.2% were remarried. The majority of the families had an average gross annual income between 30,000- and 40,000-euros per year.

**Procedure.** Parents were part of two cross-sectional cohorts of data collection. Only the first cohort of parents participated in this project during August and September 2020 and reported their retrospective opinions about their own and their youths' behaviors before the Covid-19 pandemic started and during Covid's 1st wave in Italy, when all the families in Italy faced quarantines, because of the National lockdown, and online education ( $N = 247$ , 83.8% mothers; youths'  $M_{age} = 11.28$ ,  $SD = 3.84$ ). The second cohort of parents (an

independent sample from the previous one) participated during December 2020 and January 2021 and reported their opinion about their own and their youths' behaviors during Covid's 2nd wave in Italy, when especially children in middle and high schools, and at least one of their parents, faced quarantines and online education ( $N = 284$ , 78.9% mothers; youths'  $M_{age} = 13.92$ ,  $SD = 3.84$ ). Not significant differences emerged between cohorts 1 and 2 in parents' years of education,  $F(1,525) = 0.65$ ,  $p = .42$ , work-status,  $F(1,380) = 3.23$ ,  $p = .07$ , and marital status,  $F(1,489) = 0.01$ ,  $p = .93$ .

After obtaining approval from the local institution's Institutional Review Board, a URL link was created via the Qualtrics platform. The informed consent information about the overall study's objectives and method was advertised through word of mouth, social media, schools, and summer camps. In the first cohort, the inclusion criteria were to be a parent of a child aged between 6 and 18 years old. In the second cohort, the inclusion criteria were to be a parent of a child aged between 6 and 18 years old in online education. After having consented, parents were invited to fill in a set of questionnaires anonymously. Measures were administered in Italian. Interviews lasted approximately 40 min across the two cohorts of data collection. This study focuses on a sub-set of the measures that have been collected overall. Because of the convenient nature of this sample, it was not possible to calculate the response rate. The average completion rate from both cohorts of data collection was 75%.

**Measures.** Youths' gender. 1 = boys, 2 = girls.

**Parents' educational level.** Mothers' and fathers' years of education completed.

**Parental social desirability.** Parents completed the Lie Scale from the Big Five Questionnaire (Caprara, Barbaranelli, Borgogni, & Perugini, 1993), which evaluates the tendency of participants to give a more positive image of themselves. Parents were asked to rate on 11 items (item example: "I have never criticized anyone") how typical each answer was for him/her (from 1 = "absolutely false for me" to 5 = "absolutely true for me";  $\alpha = .83$ ).

**Parental socialization strategies in response to youths' negative emotions.** Participants completed the subscales of the parent's version of the Emotion as a Child Scale (EAC; Magai, 1996; Klimes-Dougan et al., 2007), referred to the parental responses to the expression of their children's sadness (15 items) and anger (15 items). The

translation/back-translation procedure (Erkut, 2010) was implemented to gain the Italian version of the EAC. Considering the high levels of comorbidity among anger and sadness experience in children and adolescence (e.g., Zeman & Shipman, 1997), we aggregated the data on anger and sadness in order to examine PES in response to children's negative emotions. Preliminary exploratory factorial analyses (EFA) showed the presence of two main dimensions of PES strategies (further details are reported in the Supporting information): supportive strategies (11 items, e.g., When your child has been sad, how often do you tell him/her to cheer up?"; When your child has been angry, how often do you understand why he/she was angry?"; cohort 1: Retrospective pre-Covid-19 pandemic in Italy  $\alpha = .66$ ; Covid-19's 1st wave in Italy  $\alpha = .74$ ; cohort 2: Covid-19's 2nd wave in Italy  $\alpha = .81$ ) and unsupportive strategies (17 items, e.g., When your child has been sad, how often do you call him/her a crybaby or such?"; When your child has been angry, how often do you yell back at him/her?"; cohort 1: Retrospective pre-Covid-19 pandemic in Italy  $\alpha = .66$ ; Covid-19's 1st wave in Italy  $\alpha = .71$ ; cohort 2: Covid-19's 2nd wave in Italy  $\alpha = .79$ ) for the socialization of children's negative emotions.

*Youths' internalizing and externalizing problems.* Participants completed 55 items from the Child Behavior Check List (CBCL; Achenbach, 1994; from 0 "not true" to 2 "very true/often true"), referencing youths' internalizing (21 items, e.g., "He/she cries a lot") and externalizing problems (34 items, e.g., "Gets in many fights"). Items were averaged to create total scores of internalizing problems (cohort 1: Retrospective pre-Covid-19 pandemic in Italy  $\alpha = .86$ ; Covid-19's 1<sup>st</sup> wave in Italy  $\alpha = .85$ ; cohort 2: Covid-19's 2nd wave in Italy  $\alpha = .90$ ) and externalizing problems (cohort 1: Retrospective pre-Covid-19 pandemic in Italy  $\alpha = .90$ ; Covid-19's 1st wave in Italy  $\alpha = .87$ ; cohort 2: Covid-19's 2nd wave in Italy  $\alpha = .86$ ).

*Youths' negative emotions' (dys)regulation.* Parents were asked to fill out a modified version of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) adjusted for three specific children's negative emotions: anger, sadness, anxiety. Parental responses were recorded on a 5-point Likert scale (from 0 "Not at all" to 5 "a lot"). In particular, based on a previous validation study (Rothenberg et al., 2019), from the 36 items of the original version of the DERS, 10 items that better represented the construct of emotion (dys)regulation (with the highest factorial loadings per sub-

scale reported in Gratz & Roemer, 2004) were selected and adjusted for the aforementioned specific negative emotion. For the purpose of this study, six items were included for negative emotions' adaptive regulation (e.g. "How often your child:— Even if he/she is angry/sad/anxious, he/she can control himself/herself."); cohort 1: Covid-19's 1st wave in Italy  $\alpha = .71$ ; cohort 2: Covid-19's 2nd wave in Italy  $\alpha = .63$ , and 20 items for the negative emotions' dysregulation (e.g., "How often your child: - Because he/she is angry/sad/anxious, it takes a long time for him/her to feel better."); cohort 1: Covid-19's 1<sup>st</sup> wave in Italy  $\alpha = .94$ ; cohort 2: Covid-19's 2<sup>nd</sup> wave in Italy  $\alpha = .93$ .

### Analytic Approach

In both cohorts 1 and 2, the analyses rely on data-sets including both mother- and father-reports, each contributing to be a reference point of a different family unit (i.e., occupying different lines of the data sets). After a preliminary screening of the descriptive statistics (means, standard deviations; skewness, and kurtosis) of the variables of interest, a series of paired *t*-test among dependent samples, on the data collected in the first cohort, were implemented to examine the potential mean-differences in parental socialization strategies and in youths' internalizing and externalizing problems between the period before the Covid-19 pandemic and the 1st wave of Covid-19 pandemic in Italy. Whereas a series of analyses of variance were implemented to examine the potential mean differences in PES strategies and youths' internalizing and externalizing problems between the two cross-sectional independent samples recruited during Covid-19's 1<sup>st</sup> and 2<sup>nd</sup> waves in Italy (cohort 1 and cohort 2, respectively).

Partial Pearson's correlations between the studied variables were examined considering the entire sample, including the data collected in the first cohort (only in relation to the 1st wave of contagion in Italy, controlling for youths' gender and age, parents' educational level, social desirability, and the cohort of data collection).

## RESULTS

### Descriptive Statistics and Mean Differences

Table 1 shows means, standard deviations, skewness, and kurtosis for all the variables and the results of the mean differences. Values less than 2 for univariate skewness and less than 5 for

TABLE 1  
Study 1 Descriptive Statistics and Mean Differences (Cross-sectional Study)

	M	SD	Skewness	Kurtosis
Unsupportive parental negative emotions socialization				
Retrospective pre-Covid-19 pandemic	2.14	0.51	0.26	0.01
Covid-19's 1st wave	2.31	0.59	0.11	-0.52
Covid-19's 2nd wave	2.32	0.51	0.19	-0.12
Supportive parental negative emotions socialization				
Retrospective pre-Covid-19 pandemic	3.31	0.60	-0.27	0.05
Covid-19's 1st wave	3.51	0.61	-0.81	0.44
Covid-19's 2nd wave	3.93	0.58	-1.20	3.33
Youths' internalizing problems				
Retrospective pre-Covid-19 pandemic	0.37	0.27	0.85	0.71
Covid-19's 1st wave	0.43	0.29	0.66	0.20
Covid-19's 2nd wave	0.42	0.32	1.03	0.74
Youths' externalizing problems				
Retrospective pre-Covid-19 pandemic	0.21	0.18	2.28	7.83
Covid-19's 1st wave	0.24	0.19	1.36	2.55
Covid-19's 2nd wave	0.21	0.19	1.72	3.83
Youths' negative emotion dysregulation				
Covid-19's 1st wave	1.81	0.67	1.02	0.94
Covid-19's 2nd wave	1.97	0.67	0.76	0.02
Youths' negative emotion regulation				
Covid-19's 1st wave	2.75	0.77	-0.28	-0.15
Covid-19's 2nd wave	3.03	0.68	-0.21	0.36
				11.04** b

Note. SD = Standard deviation.

Retrospective pre-Covid-19 pandemic and Covid-19's 1<sup>st</sup> wave refer both to cohort 1 data; Covid-19's 2nd wave refer to cohort 2 (i.e., a different sample than the previous one).

<sup>a</sup>Paired *t*-test results for dependent samples, comparing the two datasets from cohort 1.

<sup>b</sup>F-test results (ANOVA) comparing the independent samples of the Covid-19's 1st wave (cohort 1) and the Covid-19's 2nd wave (cohort 2) in Italy (cross-sectional mean comparison).

\*\**p* < .01; \**p* < .05.

univariate kurtosis were used as criteria for evaluating univariate normality (Curran, West, & Finch, 1996). Only Pre-Covid externalizing problems reported unsatisfied values of skewness and kurtosis (skewness = 2.28; kurtosis = 7.83). Therefore, we transformed this score using the logarithm in base 10, after which both the asymmetry and the kurtosis reached values in the ranges criteria (skewness = -0.25; kurtosis = -0.41), and we used this transformed score for the subsequent analyses. Regarding the mean differences examined with the paired *t*-test for dependent samples, results showed a significant increase of both unsupportive and supportive parental strategies for the socialization of children's negative emotions, as well as of both youths' internalizing and externalizing problems in the Covid-19's 1st wave compared to the period before the pandemic using retrospective reports.

Regarding the one-way analyses of variance (ANOVAs; for independent samples), we found significant increase of supportive parental strategies for the socialization of children's negative

emotions and youths' negative emotions (dys)regulation in the 2nd wave compared to the 1st wave of the Covid-19 pandemic in Italy. On the other hand, results showed no significant differences in the mean levels of unsupportive parental strategies and youths' internalizing and externalizing problems between the two different samples recruited during Covid-19's 1st and 2nd waves in Italy.

### Correlation Analyses

Almost all the variables were significantly associated with each other (Table 2). In particular, it emerged that unsupportive PES strategies were positively and significantly related to supportive PES strategies, youths' internalizing and externalizing problems, and youths' negative emotion dysregulation. Supportive PES strategies were positively associated only with both youths' negative emotion dysregulation and adaptive regulation strategies, though more strongly with the latter than the former one. Youths' internalizing and

TABLE 2  
Study 1 Partial Cross-sectional Correlation Analyses

<i>During the pandemic</i>	(1)	(2)	(3)	(4)	(5)	(6)
(1) Unsupportive parental negative emotions socialization	—					
(2) Supportive parental negative emotions socialization	.203**	—				
(3) Youth Internalizing problems	.489**	.101	—			
(4) Youth Externalizing problems	.417**	.036	.682**	—		
(5) Negative Emotion dysregulation	.390**	.138*	.525**	.495**	—	
(6) Negative Emotion regulation	-.014	.239**	.024	-.035	.182**	—

Note. Only for the purposes of this correlation matrix, corresponding data collected during the Covid-19's 1st wave (cohort 1) and the Covid-19's 2nd wave (cohort 2) in Italy were combined. Partial correlation analyses controlling for youths' gender and age, parents' social desirability, parents' educational level, cohorts of data collection.

\*\* $p < .01$ ; \* $p < .05$ .

externalizing scores were positively related between each other.

## STUDY 2

In this study, we examined the mean-differences and the associations among the study variables previously reported in Study 1, but on an additional sample of parents of a clinical sample of Italian youths. This longitudinal study with two time-points was examined before the Covid-19 pandemic hit Italy and about eight months after the Covid-19 pandemic began. Therefore, hypotheses about the associations among the study variables are like the ones reported for Study 1. However, it is essential to highlight that the clinical relevance of the youths sample to whom parents refer in this study may lead to stronger associations between unsupportive PES strategies and youths' symptoms of internalizing and externalizing problems than the correspondent ones that emerged for the convenient sample reported in Study 1.

## Method

**Participants.** This study involves mothers ( $n = 80$ ;  $M_{age} = 49.25$ ,  $SD = 5.52$ ) and fathers ( $n = 76$ ;  $M_{age} = 50.14$ ,  $SD = 5.80$ ) of a longitudinal clinical sample of 80 adolescents ( $M_{age} = 14.97$ ,  $SD = 2.27$ ; 44.4% girls). Youths were at different stages of their cognitive-behavioral therapeutic treatment. In particular, 38% of youths were recruited at the preliminary stage of their therapeutic treatment; 4% of youths were at the end of their therapeutic treatment; the remaining youths were at different stages of their therapeutic treatment.

Years of education for mothers and fathers were 15.17 ( $SD = 3.64$ ) and 14.76 ( $SD = 3.42$ ),

respectively (i.e., on average, parents completed the bachelor's degree years). In the sample before the pandemic, 87.8% of mothers reported working; among them, 60.8% worked full-time. 93.5% of fathers reported working full-time, and 6.5% of fathers did not work. About parents' marital status, 69.9% were married, 5.5% were divorced, 8.2% were separated, 6.8% were widowed, 8.2% were cohabitating, and the 1.4% were remarried. The majority of the families had an average gross annual income between 30,000- and 40,000-euros per year.

**Procedure.** A similar procedure to the one described for Study 1 was also used for this study (e.g., each parent filled in his/her own version of the survey independently), except for the participant recruitment. Indeed, differently from Study 1, at Time 1 (T1), the research team worked in partnership with private mental health clinics for children and adolescents. After obtaining approval from the local institution's Institutional Review Board, a URL link was created via the Qualtrics platform, containing the information about the study's objectives, procedures, and the questionnaires to be administered. Youths' inclusion criteria were to be aged between 10 and 18 years old and to be in treatment because of clinically relevant levels of depressive, anxiety, learning problems, or conduct disorder. Exclusion criteria were to be in treatment with drugs, to have a diagnosis of bipolar disorder, or of pervasive developmental disorders. Initially, members of the research team explained the aims and methods of the research to the reference psychotherapists. Then, appointments were organized in which the psychotherapist allowed the members of the research team to meet with the youth patients and their parents at their

clinic in order to provide an explanation of the project objectives and the research procedure, and answer questions about any aspect of the research project. If parents and children agreed to participate, they were asked to sign the informed consent and assent forms, respectively. Parent-reports were collected via Qualtrics, including measures that are not part of this study (average length of data collection of the overall battery of questionnaires was 1 hr; percentage of completion rate was 93% for mothers and 88% for fathers).

Participants received an economic incentive after they participated in the whole study (it is beyond the scope of this study, but the procedure also required physiological and mobile ecological data collection with youths).

T1 data-collection was implemented between May and December 2019; it ended right before Covid-19 hit Italy. Time 2 (T2) data collection occurred in August and September 2020. At T2, parents were contacted via text message and asked whether they were willing to answer a small set of questions about their own and their offspring's behaviors since the pandemic started. The ones who accepted were directed with a link to the consent form and to the battery of questionnaires administered via Qualtrics. The average length of data collection was 20 min; the percentage of completion rate among the ones who participated was 66% for mothers and 46.5% for fathers.

**Measures.** This study relied upon the same measures administered in Study 1, except parental social desirability was measured with the 13-item Social Desirability Scale-Short Form, which has demonstrated high reliability and validity across various cultures (Reynolds, 1982).

Because of the strong average correlation (average  $r = .52$ ) between maternal and paternal correspondent scores, we averaged those scores in order to focus hereafter on parent-reports of the study variables.

### Analytic Approach

The analyses rely on both mother- and father-reports as dyads, belonging to the same family unit. The average correlation among mother- and father-reports on the correspondent examined variables was .51; thus, all the examined variables were averaged across parents.

Paired  $t$ -tests for dependent samples were implemented to examine mean differences in the study variables before the pandemic started (Time

1; T1) and after, about eight months since the pandemic began (Time 2; T2).

Then, a path analysis via MPlus version 7 (Muthén & Muthén, 2012) was implemented in order to examine the predictive effects of unsupportive and supportive PES strategies in affecting youths' internalizing and externalizing scores. In particular, T1 unsupportive and supportive PES strategies (before the Covid-19 pandemic) were considered as predictors, T2 unsupportive and supportive PES strategies, youths' internalizing and externalizing problems, and youths' negative emotion adaptive regulation and dysregulation (since the Covid-19 pandemic started) were considered as outcomes. We controlled for the stability of PES strategies and youths' internalizing and externalizing problems, and we considered youths' gender and age, parents' educational level, and parents' social desirability as covariates of all the examined variables. Within-time correlations, both at T1 and T2, were also considered in the examined model. A model was considered to have good fit if the  $\chi^2$  test was non-significant ( $p \geq .05$ ), the CFI  $\geq .95$ , and the RMSEA  $\leq .06$  (Hu & Bentler, 1999).

## RESULTS

### Descriptive Statistics and Mean Differences

Table 3 reports Cronbach's alphas, means, standard deviations, skewness, and kurtosis for all the study variables, as well as the results of the paired  $t$ -tests.

Results showed a significant decrease of both unsupportive and supportive PES strategies from T1 (before the COVID-19) to T2 (since the pandemic started). In addition, we found a significant decrease in youths' internalizing and externalizing problems since the pandemic began.

### Correlation Analyses

As reported in Table 4, T1-T2 correlations for PES and youths' internalizing and externalizing problems were all significant and moderate to strong. Moreover, unsupportive and supportive PES strategies were positively related to each other both at T1 and T2. Unsupportive PES strategies were positively associated with youths' internalizing and externalizing problems across times and with T2 youths' negative emotion dysregulation. We found a positive and moderate correlation between T1 and T2 supportive PES strategies and both T1 and T2 youths' internalizing problems and T2 negative emotion (dys)regulation. T1 and T2 internalizing

TABLE 3  
Study 2 Descriptive Statistics and Mean Differences (Longitudinal Study)

	M	SD	Skewness	Kurtosis	Cronbach's alphas	Paired T-test (dependent samples)
Unsupportive parents' negative emotions socialization						
T 1	1.95	0.47	0.68	0.86	0.81 <sup>b</sup> ;0.86 <sup>b</sup>	
T 2	1.78	0.52	0.75	-0.12	0.86 <sup>b</sup> ;0.82 <sup>b</sup>	2.79**
Supportive parents' negative emotions socialization						
T 1	3.70	0.57	-0.50	0.23	0.82 <sup>b</sup> ;0.89 <sup>b</sup>	
T 2	3.01	0.79	-0.40	-0.23	0.87 <sup>b</sup> ;0.86 <sup>b</sup>	6.14**
Youths' internalizing problems						
T 1	1.45	0.28	0.77	-0.02	0.90 <sup>b</sup> ;0.86 <sup>b</sup>	
T 2	1.34	0.27	0.59	-0.63	0.89 <sup>b</sup> ;0.87 <sup>b</sup>	3.43**
Youths' externalizing problems						
T 1	1.24	0.16	1.04	0.52	0.83 <sup>b</sup> ;0.77 <sup>b</sup>	
T 2	1.21	0.18	1.13	0.82	0.87 <sup>b</sup>	2.40*
Youths' negative emotion dysregulation						
T 1	1.75	0.53	0.34	-0.85	0.90 <sup>b</sup>	
Youths' negative emotion regulation						
T 2	2.72	0.77	-0.24	-0.45	0.78 <sup>b</sup> ;0.68 <sup>b</sup>	

Note. SD = Standard deviation.

<sup>a</sup>Mothers.

<sup>b</sup>Fathers. T1 refers to Time 1, before the pandemic. T2 refers to Time 2, about eight months since the pandemic began.

\*\* $p < .01$ ; \* $p < .05$ .

and externalizing problems were either positively and strongly related between each other within- and across-time or positively associated with T2 negative emotion dysregulation. Finally, it emerged a positive correlation between T2 youths' negative emotion adaptive emotion regulation and dysregulation.

### Path Analysis

Preliminary analysis showed that the tested model was not identified because it had more parameters than the sample size. Thus, we retained only covariate effects and within-time correlations significant at  $p < .05$  in the final model. In addition, considering the strong correlation between T1 and T2 internalizing and externalizing problems (average  $r = .48$ ), the analyses implemented hereafter capitalized on T1 and T2 total problem score created by averaging within-time internalizing and externalizing problem scores (e.g., Rescorla et al., 2007).

The final path analysis model (Figure 1) fit the data well,  $\chi^2(40) = 39.75$ ,  $p = .48$ , CFI = 1.00, RMSEA = .00, 90% CI = 0.00–0.09. In particular, beyond the significant stability of PES strategies and youths' total problem score, it emerged that: (1) T1 unsupportive PES strategies were positively associated with both T2 youths' negative emotion dysregulation and T2 youths' total problems; (2) T1

supportive PES strategies were positively associated with T2 youths' adaptive negative emotion regulation. We found a positive T1 within-time correlation among unsupportive PES and youths' total problem score. T2 within-time correlations were all significant and positive, except for the association of T2 youths' adaptive negative emotion regulation with T2 youths' total problems and T2 PES strategies. Moreover, it emerged that parents' high in social desirability were among those who reported higher scores in T1 supportive PES strategies and lower T1 youths' total problem scores. Finally, it emerged that parents with older children, compared to those with younger children, reported lower T1 supportive PES strategies and higher T1 youths' total problems.

### DISCUSSION

The Covid-19 pandemic has increased the likelihood for youths worldwide to be at risk for adjustment problems. Moreover, since the pandemic has started, many children may have increased the likelihood of problematic trends for their future positive development.

Italy was the first Western country hit by Covid-19, and it is among the countries in Europe that were hit the hardest in terms of death rates. During the first part of 2020, Italian families were in quarantine because of the National lockdown, youths

TABLE 4  
Study 2 Partial Longitudinal Correlation Analyses

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Unsupportive parents' socialization T1	—									
(2) Unsupportive parents' socialization T2	.546*	—								
(3) Supportive parents' socialization T1	.096	—	.170							
(4) Supportive parents' socialization T2	.281	.360*	—	.328*						
(5) Youths' internalizing problems T1	.573**	.361*	.183	.175	—					
(6) Youths' internalizing problems T2	.489***	.582**	—	.273	.348***	.553**				
(7) Youths' externalizing problems T1	.735***	.320**	.068	.294	.547**	.383*	—			
(8) Youths' externalizing problems T2	.676***	.417*	.417*	—	.105	.293*	.570***	.784***		
(9) Youths' negative emotion dysregulation T2	.490***	.497***	.497***	—	.137	.381***	.633*	.490***	.526*	
(10) Youths' negative emotion regulation T2	—	.251	-.015	.103	.239*	.170	.373***	-.024	.123	.377*

Note. Partial correlation analyses controlling for youths' gender and age, parents' social desirability, parents' educational level. T1 refers to Time 1, before the pandemic. T2 refers to Time 2, about eight months since the pandemic began.

\* $p < .01$ ; \*\* $p < .05$ .

were in online education, and parents became full-time child-care providers and home-school teachers, in addition to their pre-Covid-19 regular family and work duties. During the second part of 2020, especially Italian middle and high schoolers were in online education. Considering the intense period of quarantine and forced cohabitation among family members during 2020, the present manuscript aims to examine how Covid-19 has affected parents' reactions toward their children's emotions, as well as youths' socioemotional adjustment.

Parental emotion socialization (PES) strategies predict youths' socioemotional adjustment and behavioral problems (Eisenberg et al., 1998), yet evidence of these associations in the context of the Covid-19 pandemic is limited. Focusing on parent-reports collected before and during the Covid-19 pandemic in Italy, this manuscript specifically attempts to investigate (1) the means levels differences in supportive and unsupportive parental socialization strategies in response to their offspring's negative emotions and youths' internalizing and externalizing problems across the pandemic; (2) the associations among the aforementioned variables and also youths' negative emotion (dys)regulation; (3) the predictive contribution of unsupportive and supportive PES strategies (before the pandemic started) on youths' socioemotional adjustment (since the pandemic began). To strengthen the validity of the obtained results, two studies were designed to answer similar research questions, but with two different perspectives: the first one relied upon parent-reports collected among two cohorts collected at different time points during the pandemic, using a cross-sectional, convenient sample design; the second one relied upon a two-time point longitudinal study of parents of a clinical sample of youth.

We first discuss the results from both studies about the possible impact of the Covid-19 pandemic on both PES and youths' socioemotional adjustment.

In Study 1, in accordance with our hypothesis to find a significant increase in unsupportive PES strategies and in youths' levels of internalizing and externalizing problems, we found an increase in unsupportive PES practices and in youths' internalizing and externalizing problems comparing parent-reported retrospective data on those behaviors before and since the Covid-19 pandemic began; however, contrary to our expectations, we also found an increase in supportive PES

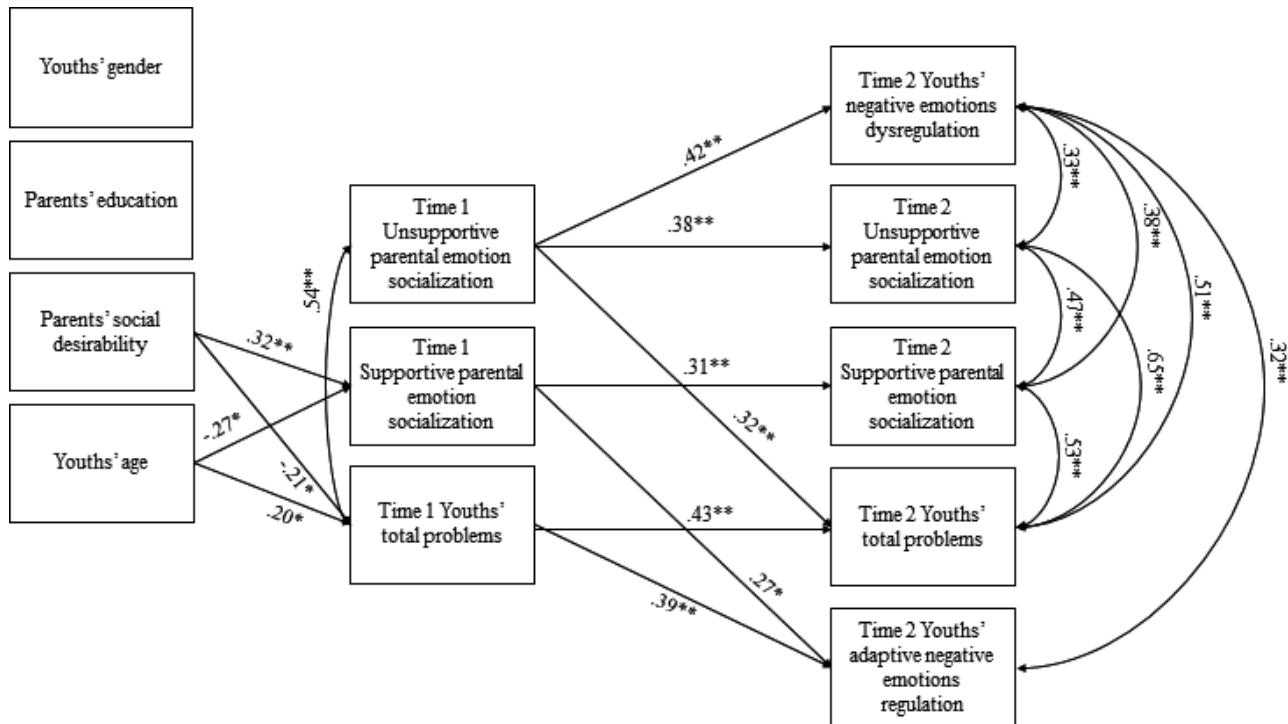


FIGURE 1 Study 2 Longitudinal path analysis model. Note. \* $p < .05$ ; \*\* $p < .01$ . Only significant paths are reported. Standardized coefficients are presented. Time 1 refers to before the pandemic. Time 2 refers to about eight months since the pandemic began.

strategies. This may be due to the rise in the amount of time parents spent with their children because of the lockdown in Italy. These results are consistent with previous studies (e.g., Shaw & Starr, 2019) suggesting the negative impact of high levels of perceived stress within the family in affecting the family members' behaviors. In fact, the Covid-19 pandemic may have increased the perceived stress and the overall family's experience of negative emotions, which may have affected the higher use of negative and dysregulated parental strategies when dealing with their children's negative emotional reactions. In addition, an increase emerged in both supportive PES strategies and in youths' adaptive emotion regulation in the second wave of the Covid-19 pandemic in Italy (i.e., the second cohort of cross-sectional data collected in December 2020/January 2021), in comparison to the first wave of Covid-19 pandemic in Italy (i.e., first cohort of cross-sectional data, different from the other cohort, collected in August-September 2020). Thus, we did not find an increase in unsupportive PES strategies, nor an increase in youths' socioemotional problems when comparing the first and the second wave of cross-sectional data sets. Thus, despite the persistence of the adverse circumstances related with the Covid-19 pandemic,

these results contrast previous studies reporting that the effect of negative parenting could be influenced by negative contexts and high levels of stress (Shaw & Starr, 2019). This could be related to the lack of longitudinal nature of the data examined in study 1. On the other hand, it might also be possible to speculate that the long quarantine period (targeted in the first cohort of data collection), plus the prolonged period at home for youths because of online education (targeted in the second cohort of data collection) created the chances for parents not only to spend more time with their children, but also to strengthen those PES strategies that might be more supportive for their children, in comparison to the period before the pandemic started.

Contrary to our expectations, an opposite scenario emerged in Study 2 when examining parents' reports of a clinical sample of youths. Indeed, a decrease in both PES strategies and of youths' socioemotional problems emerged. A speculative interpretation of this result may be related to the clinical nature of the youth sample in Study 2. Indeed, youths who have clinically relevant symptomatology may have benefited from the quarantine. For example, they may have decreased the chances to enact those externalizing behaviors

toward peers because they could simply not meet anyone because of quarantine. In addition, they may have experienced, for example, fewer anxiety-depression symptoms due to the more protected family environment in which they stayed because of the quarantine, thus reducing the chances to be exposed to anxiety- or depression-provoking situations.

Moreover, a decrease in youths' clinically related problematic behaviors is coherent with the study of Luthar et al. (2020), which reported that the quarantine could have reduced U.S. youths' academic and social-related sources of pressure and, in turn, could have decreased youths' emotional and behavioral problems in the first months of the pandemic. However, those hypotheses are speculative and deserve further examination in future studies.

The results from both studies are in line with an overall view that highlights the importance of acknowledging different emotional development scenarios when examining the impact of adverse environmental challenges in family contexts, in which children show various degrees of vulnerability to psychopathologies (e.g., Belsky, 2005; Ingram & Luxton, 2005; Izard et al., 2002).

In agreement with our second hypothesis about identifying significant associations between PES strategies and youths' socioemotional problems and emotion dysregulation, in both studies an overall positive association emerged between unsupportive PES strategies and both youths' internalizing/externalizing problems and difficulties in emotion regulation. Thus, children with higher scores in aggressive behaviors or anxiety-depressive symptoms and who showed more difficulties in negative emotion regulation had parents who most often reacted to their children's angry and sad reactions with punishment, compared to children with lower aggressive and anxiety-depressive problems, and vice-versa. In addition, supportive PES strategies (e.g., parents who most often reacted to their children's angry and sad reactions with listening, sympathizing, or rewarding) were associated with youths' more frequent use of adaptive emotion regulation strategies. These results are in agreement with previous studies supporting the impact of PES strategies on youths' socioemotional adjustment (e.g., Thompson et al., 2017; Yap et al., 2010). However, in both studies, three results emerged in contrast with our hypotheses: (1) a positive correlation among supportive PES strategies and youths' negative emotion dysregulation, (2) a positive correlation among supportive and unsupportive PES strategies, and

(3) a positive correlation among youths' adaptive emotion regulation and emotion dysregulation. Those findings are limited and preliminary, however, a common lens to provide a potential explanation for the first two of the aforementioned weak-to-moderate correlations may be a stronger effect of child externalizing and internalizing behavior problems predicting negative parenting (and low positive parenting), than of parenting affecting subsequent child behaviors (Lansford et al., 2018; Rothenberg et al., 2019). Specifically, since the pandemic started, an overall scenario characterized by a worsening in child problematic behaviors, as well as the forced increased likelihood for all family members to be in the same home space due to quarantine, lockdown, and online education, could have been associated with an increase in the number of times in which parents had to deal with their children's behaviors of all kinds, including negative emotional reactions. Thus, more frequent (and presumably more intense) difficulties in emotion regulation were associated with more frequent parental efforts of any kind (both supportive and unsupportive) in response to their children's emotion dysregulation. In addition, those parents who were among the ones who more frequently responded to their children's emotional difficulties in a supportive way, were also among the ones who more frequently responded to their children's difficulties in an unsupportive way. Similar results have been found in several other studies, such as in relation to the positive association between punitive and non-punitive parental practices in the Italian context (Di Giunta et al., 2012). The aforementioned unexpected positive correlations may also refer to a multi-faceted, proactive, trial-and-error-driven attitude of parents who persist with both supportive and unsupportive PES in order to reduce their offspring's distress, but who are not always successful in achieving such a goal. That is another speculative hypothesis that needs future longitudinal study to be empirically corroborated.

Moreover, the weak positive association between youths' adaptive emotion regulation and emotion dysregulation might be due to a method effect. Indeed, those two constructs rely on items adapted from the same measure in difficulties in emotion regulation (Gratz & Roemer, 2004). Thus, the correlation might refer to the shared variance among those items to belong to the same measure (e.g., the same formulation of the items, but just referring to a different level of emotion regulation difficulty). Further studies should corroborate this

hypothesis by examining adaptive emotion regulation and emotion dysregulation with measures tapping those constructs with more validated measures than those considered in the present work.

Regarding the predictive effects of PES strategies before the Covid-19 pandemic began on clinical youths' problematic behaviors and symptoms since the pandemic started (examined in Study 2), in agreement with previous studies (e.g., Yap et al., 2010), our findings showed that higher previous unsupportive parental strategies were significantly associated with higher later youths' negative emotions dysregulation and internalizing/externalizing problems. Those results emerged while controlling for the stability of previous youths' internalizing and externalizing problems, and for the within-time correlations among the examined variables. Furthermore, in accordance with our hypothesis, higher previous supportive PES strategies were significantly associated with higher later youths' adaptive emotion regulation. These results confirm the protective role played by parents' supportive behaviors on their children's adaptive emotional development and provide new evidence about the impact of PES on youths' adjustment in adverse circumstances, such as the Covid-19 pandemic. Those results also confirm our hypothesis in the framework of personality development (e.g., Caspi & Roberts, 2001), about the importance of environmental contingencies in affecting how parenting influences youths' personality development, and more specifically, socioemotional development.

Finally, the results of the present studies emerged when controlling for children's gender and age, parental social desirability, and educational level. The only significant covariate effects that occurred were the impact of parental social desirability on higher scores in supportive strategies and lower youths' behavioral problems. It also emerged that parents with older children, compared to those with younger children, reported lower supportive parental strategies and higher youths' behavioral problems. Those results are in line with previous studies suggesting some difference in the way in which children's developmental stage may affect parenting, children's problem behaviors, and the association among them (Bevilacqua et al., 2021; Bornstein et al., 2021; Lansford et al., 2009), and highlight the importance of controlling for children's age when examining those developmental processes.

### **Strengths, Limitations, and Future Directions**

This study has several strengths. First, it offers empirical support and increased knowledge about the association between PES and youths' socioemotional (mal)adjustment in the unique situation of the Covid-19 pandemic. Second, it offers two different reasons for the aforementioned associations in a normative and clinical sample of youths. Indeed, in line with previous studies (Lansford et al., 2009), relying on two separate samples with different profiles of children's problem behaviors has strengthened the possibility for other researchers to hypothesize and generalize similar processes to the ones shown in these studies, also in their own cultural contexts. Third, even though the data rely upon parent reports, the results emerged controlling for parental social desirability and educational level, youths' gender and age, and in Study 2 also for the stability of PES and internalizing and externalizing problems. Fourth, both studies relied on both maternal and paternal reports of emotion socialization strategies and of their offspring's behaviors.

This study also has limitations. First, both studies rely on convenient samples that cannot be considered nationally representative samples; thus, our findings' generalization is limited. Second, about Study 1, the comparison among reports about the pre-Covid-19 scenario and the scenario during the first wave of contagion in Italy relied on retrospective parent-reports that might be influenced by memory bias having caused some error in the accuracy with which participants reported information at the time of administration. Overall, the results from Study 1 should be taken cautiously considering that even though we provided exploratory up-to-date evidence about potential differences in the mean levels of PES and of youths' socioemotional adjustment before the Covid-19 pandemic started and since its onset in Italy, those results still rely on a cross-sectional design and, thus, could never accurately reflect the true longitudinal nature of those data. In fact, from Study 1 it is not possible to understand whether or not these (lack of) changes over time occurred as a result of the same influences (e.g., the Covid-19 pandemic) or a system of variables (e.g., pre-existing environmental and individual factors; Maxwell & Cole, 2007). Third, in both studies, we collapsed two age groups, middle childhood and adolescence, into a unique sample; this might have hidden some developmental difference, for example, in the strength of the examined associations comparing children and adolescents (e.g., Luthar et al., 2020).

Future studies should analyze data separately for such age groups to clarify developmental differences or similarities in such associations. Specifically, in line with Rothenberg et al. (2019), future studies may investigate specific child behavior clusters to examine whether the association between PES and some of those symptom clusters endures into adolescence or not. Fourth, Study 2 relies on a socioeconomically advantaged sample of families, whose children could attend weekly regular therapy sessions in private mental health clinics. Thus, even though we made methodological attempts to control for parental socioeconomic status (i.e., controlling for parental levels of education), those results cannot be generalized to families with low socioeconomic status. Another limitation of Study 2 was that the results did not control for the point of youths seeking treatment when recruited. Future studies should monitor the status of youth treatment when collecting data; that may facilitate a better understanding of whether the change in symptoms at Time 2 is a function of the adverse contexts affecting family functioning (e.g., Covid-19 pandemic) or something else (e.g., selection or history effects). Fifth, this study focuses on families from Italy, which preclude generalizing the results to other countries. However, parents in Italy, as well as parents from all over the world, were facing a similar novel challenge in such a Covid-19 pandemic era; thus, we believe those data may be useful to guide some hypotheses about possible universal mechanisms with which the Covid-19 pandemic is affecting the parent-child relationship. A further limitation of this study is the low alpha for the pre-Covid-19 supportive and unsupportive PES strategies, as well as for the 2nd wave of Covid-19 negative emotions' youth adaptive regulation. Even though previous studies consider reliable measures whose alphas are above .60 (Griethuijsen et al., 2014), future studies should further examine the source of validity problems in those scales. A hypothesis is that those scales may benefit from additional items reflecting scenarios that more variously, than the existent ones, address what parents may rely on when dealing with their children's emotional reaction or what youths rely on when adaptively dealing with their own emotions in more various cultural contexts. This study did not also consider the role played by other variables, such as adolescents' temperament or parents' personality, in affecting both parents' behavior and youths' adjustment (Eisenberg et al., 1998), as well it did not consider youths' perception of parenting and their own behaviors. Our data are not

experimental, which limits the inference of causal relations among the examined variables. In addition, it was not possible to control for the stability of (dys)regulation because that measure at T1 was missing. Future studies should overcome those limitations. Future studies may also explore whether there is an interaction between child behavior problems before the Covid-19 pandemic started and PES on child behavior problems since the Covid-19 pandemic began and, specifically, whether PES changes the rate of change (or stability) in child behavior problems from before to after the pandemic onset.

The present work has social relevance and contributes to helping the discussion and the reflection on the effect of parenting on youths in adverse circumstances. In particular, it contributes to understanding how much families' exposure to Covid-19-related restrictions has impacted PES and youth socioemotional functioning. Specifically, the data presented in this work supports the hypothesis of different developmental pathways with which the Covid-19 pandemic may have differently impacted typically and atypically developing youths and their families' functioning. Overall, these results provide empirical evidence on the association between family functioning and normal and abnormal child emotional development. This is in line with differential emotion theory (Izard et al., 2002) and its significance for "intervention-influenced behavioral change" (p. 763). Indeed, these results may enhance existing theory- and evidence-based programs focusing on, for example, facilitating children's emotion recognition, labeling, communication, activation, regulation, and utilization, as well as parents' understanding of emotions, and to promote parent-child emotion communication and coaching (e.g., Izard et al., 2002).

Such evidence-based knowledge may also inform international intervention efforts to effectively target not just youths', but also parents' mental health-related struggles, also associated with, or exacerbated by, Covid-19. Indeed, children's well-being depends not simply on the quality of care, but it is also directly linked to parents' own well-being (e.g., Sanders, 2008). During the pandemic, adults—just like their children—may have experienced more significant distress, than in the pre-Covid era, due to the dissatisfaction of their own needs for intimacy, companionship, recreation, and time alone; and that may be the case for both parents of typically and atypically developing children (e.g., Markie-Dadds & Sanders, 2006; Sanders, 2008). Finally, future studies should also clarify the

mechanisms that support parents to take care of themselves, in addition to take care of their children, despite adverse circumstances affecting the whole family system.

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## Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

**Figure S1.** Scree plot of the eigenvalues for the items of PES sadness Pre Covid-19 pandemic.

**Figure S2.** Scree plot of the eigenvalues for the items of the PES sadness since the pandemic started.

**Figure S3.** Scree plot of the eigenvalues for the items of PES anger Pre Covid-19 pandemic.

**Figure S4.** Scree plot of the eigenvalues for the items of the PES anger since the pandemic started

**Table S1.** Pattern matrix for the two-factors solution for the items of PES sadness Pre-Covid-19 pandemic and since the pandemic started.

**Table S2.** Pattern matrix for the two-factors solution for the items of PES anger Pre-Covid-19 pandemic and since the pandemic started.