

## Ana Beatriz Ferreira Macatrão

## **THE PSYCHOLOGICAL IMPACT OF THE COVID-19 PANDEMIC ON PARENTS AND ADOLESCENTS:** THE ROLE OF MINDFUL PARENTING AND COMPASSION FOR CHILDREN

Dissertação no âmbito do Mestrado Integrado em Psicologia Clínica e da Saúde, Subárea de Especialização em Intervenções Cognitivo-Comportamentais nas Perturbações Psicológicas e Saúde orientada pela Professora Doutora Maria do Céu Salvador, pela Doutora Marcela Matos e pelo Professor Doutor Daniel Rijo e apresentada à Faculdade de Psicologia e de Ciências da Educação.

Julho de 2021

Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra

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"Stop asking: Am I good enough? Ask only Am I showing up with love?

Life is not a straight line it's a downpour of gifts, please – hold out your hand."

- Julia Fehrenbacher

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The psychological impact of the COVID-19 pandemic on parents and adolescents: The role of mindful parenting and compassion for children

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#### Abstract

Although an increasing effort has been observed in order to explore the impact of the COVID-19 pandemic on parents and adolescents, many of the psychological mechanisms involved in that impact remain unstudied. The aim of this study was to investigate how the pandemic has affected parents and adolescents, as well as to examine if mindful parenting and compassion, processes that have been continuously linked to mental health, were

implicated in the way parents and their children cope with the distress caused by these unprecedented times. The cross-sectional study included a sample of parents (N = 73;  $M_{age} = 47.28$ ; SD = 5.66), a sample of their children - adolescents between 12 and 18 years old - (N = 45;  $M_{age} = 15.52$ ; SD = 1.76), and a third sample in which parents and their children were paired up (N = 25). Correlations revealed that the positive impact of the pandemic on the parental role was positively and significantly associated with life satisfaction in the role as a parent, self-compassion, and mindful parenting, and negatively and significantly associated with depression and anxiety. In the adolescents' study, the positive impact of the pandemic

on the family was positively and significantly associated with the soothing emotions adolescents feel inside their family and compassion from parents. Two simple mediation models were estimated, revealing that the impact of the pandemic on the parental role was directly and indirectly associated with parents' satisfaction with life in their role as a parent, through mindful parenting, and that the impact of the pandemic on the family was indirectly associated with the soothing emotions adolescents feel inside their family, through compassion they receive from their parents. Two moderation models were also estimated, showing that parents' compassion for their children, unlike mindful parenting, moderated the relationship between the impact of the pandemic on the parental role and children's selfcompassion. In conclusion, results highlight the importance of processes like mindful parenting and compassion for children in understanding how the COVID-19 pandemic impacts parents and adolescents' mental health and relationship. Other results are discussed, as well as contributions of the present study and possible clinical implications.

Keywords: COVID-19 pandemic, parents, adolescents, mindful parenting, compassion

#### Resumo

Apesar de se ter vindo a observar um crescente esforço para explorar o impacto da pandemia de COVID-19 em pais e adolescentes, muitos dos mecanismos psicológicos envolvidos nesse mesmo impacto continuam por estudar. O objetivo deste estudo foi investigar de que forma a pandemia tem afetado pais e adolescentes, bem como examinar se a parentalidade *mindful* e a compaixão, processos que têm sido continuamente associados à saúde mental, estão envolvidos na forma como os pais e os/as seus/suas filhos/as lidam com o sofrimento causado por este tempo sem precedentes. O estudo transversal incluiu uma amostra de pais (N = 73;  $M_{idade} = 47.28$ ; SD = 5.66), uma amostra dos/as seus/suas filhos/as – adolescentes entre os 12 e os 18 anos de idade - (N = 45;  $M_{idade} = 15.52$ ; SD = 1.76), e uma terceira amostra na qual os pais e os/as seus/suas filhos/as foram emparelhados (N = 25). As análises correlacionais revelaram que o impacto positivo da pandemia no papel parental se associava positiva e significativamente com a satisfação com a vida no papel enquanto

pai/mãe, a autocompaixão, e a parentalidade *mindful*, e associava-se negativa e significativamente com a depressão e a ansiedade. No estudo dos adolescentes, o impacto positivo da pandemia na família estava positiva e significativamente associado com as emoções de *soothing* que os adolescentes sentem na sua família e com o receber compaixão dos pais. Dois modelos de mediação simples revelaram que o impacto da pandemia no papel

parental estava direta e indiretamente associado com a satisfação com a vida no papel enquanto pai/mãe, através da parentalidade *mindful*, e que o impacto da pandemia na família estava indiretamente associado com as emoções de *soothing* que os adolescentes sentem na

família, através da compaixão que recebem dos seus pais. Dois modelos de moderação simples também foram estimados e mostraram que a compaixão dos pais para os/as filhos/as, mas não a parentalidade *mindful*, moderava a relação entre o impacto da pandemia no papel

parental e a autocompaixão dos adolescentes. Em conclusão, os resultados realçam a importância de processos como a parentalidade *mindful* e a compaixão pelos/as filhos/as na compreensão sobre como a pandemia de COVID-19 impacta a saúde mental e a relação de pais e adolescentes. Outros resultados são discutidos, bem como as contribuições do presente estudo e possíveis implicações clínicas.

# *Palavras-chave:* pandemia de COVID-19, pais, adolescentes, parentalidade *mindful*, compaixão

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#### Introduction

The COVID-19 pandemic has transformed the world as we knew it and has made us adapt to a new reality where the only way to slow the spread of the virus is through social distancing until vaccines or other treatments are available for all the population. While being effective means to fight a pandemic, quarantine and social isolation can have dramatic and long-lasting consequences for mental health, such as post-traumatic stress symptoms, depression, anxiety, stress, fear of infection, insomnia, emotional exhaustion, low life satisfaction or even suicide (Brooks et al., 2020; Chu et al., 2020; Dubey et al., 2020; Mariani et al., 2020). For instance, a study on the general population in China at the peak of its pandemic has shown that, during that time, depression and anxiety symptoms were more prevalent, when compared to nonepidemic times (Ran et al., 2020). Moreover, a French study that assessed the population's wellbeing during the pandemic, found that students whose schools had closed, or people confined in small spaces with no outdoor access exhibited poorer wellbeing scores than the ones who could still go to a workplace or had larger housing surface areas (Haesebaert et al., 2020). Similarly, studies regarding the impact of the pandemic on the Portuguese population, concluded that anxiety and depression were more prevalent than pre-COVID-19 levels and that wellbeing was below average (Passos et al., 2020; Paulino et al., 2021; Vieira & Meirinhos. 2021). Furthermore, it was found that, in the Portuguese population, being a student or unemployed, having a lower education level, or being more exposed to the media were associated with poorer mental health, while active working, having an outdoor space at home, or practicing regular physical exercise seemed to act as protective factors for the psychological impact of the COVID-19 pandemic (Morgado et al., 2021; Paulino et al., 2021; Silva Moreira et al., 2021; Vieira & Meirinhos. 2021).

#### The effects of the COVID-19 pandemic on family systems

It is true that everyone has felt the impact of the COVID-19 pandemic and the changes that it brought to everyday life. However, families with children or adolescents are faced with additional stressors such as home-schooling demands, childcare and additional work demands since there was a need to adapt to both parents and their children living, working, and learning in the same confined space (Daks et al., 2020; Fraenkel & Cho, 2020). Moreover, the experience of spending every hour of every day together can test families' strengths and fragilities, highlighting relational difficulties that were already present but hidden in the business of day-to-day life (Musolino, 2020).

Confinement of family members at home during the pandemic has increased anxiety and depression symptoms in caregivers and internalizing and externalizing symptoms in their children/adolescents, with caregiver and child/adolescent's mental health symptoms being highly and positively correlated (Fitzpatrick et al., 2020). Similarly, several studies reported an increase in parents' or adolescents' psychological symptoms during the pandemic. Janssen and colleagues (2020) found that parents' negative affect increased during lockdown. Russel and collaborators (2020) highlighted the caregiving difficulties that emerged in the course of home confinement, with parents reporting an increase in the parenting stress and caregiver burden related to higher rates of generalized anxiety, depression, parent perceived child stress and more child-parent conflict. A study that examined the impact of the COVID-19 pandemic on adolescents' mental health revealed significant increases in adolescents' symptoms of depression and anxiety, and a significant decrease in life satisfaction, when compared to a time before the pandemic (Magson et al., 2020). When exploring possible risk factors associated with parents' and children's experience of the COVID-19 pandemic, Spinelli and colleagues (2020) found that, in Italian families, parents' perception of the difficulty of quarantine was a mediator between parents' individual and dyadic stress and the impact of quarantine on their children's mental health, meaning that parents who reported more difficulties in dealing with the quarantine showed more stress which contributed to an increase in children's psychological problems. Similarly, Daks and colleagues (2020) found that parents scoring higher in psychological inflexibility promoted greater COVID-19 stress in the family, family conflict and parent and child distress, which reduced both child and parent wellbeing. In their study with adolescents, Magson et al. (2020) showed that higher levels of COVID-19 related stress, family conflict, feeling socially disconnected and lower adherence to the stay-at-home rules served to increase the risk of adolescents developing mental health problems during the pandemic.

These studies suggest that, in fact, the COVID-19 pandemic has had effects on parents and adolescents' relationship and on their mental health. Additionally, they point to the importance of examining variables that have been posed as relevant protective factors for psychological adjustment and mental health, since they might weaken the impact of the pandemic on parents and adolescents, and their relationship. That being said, below we present a set of variables that might act as protective factors in this context and review their relationship with wellbeing and mental health. We predict that a more positive impact of the pandemic will be linked to mindful

parenting, compassion, and self-compassion, which, in turn, will be linked to better mental health in parents and adolescents.

#### Mindfulness, Mindful Parenting and Mental Health

According to Kabat-Zinn (2015, p. 1481), mindfulness is a "moment-to-moment, nonjudgmental awareness, cultivated by paying attention in a specific way, that is, in the present moment, and as non-reactively, as non-judgmentally, and as openheartedly as possible". Mindfulness has been linked to psychological wellbeing as it buffers the effects of stressful life events, making mindful individuals more capable of dealing with difficult situations without experiencing negative mental health consequences (Ciesla et al., 2012). More specifically, it is relevant to mention parents' mindfulness skills and its implications on the parent-child relationship. According to Duncan and colleagues (2009), mindful parenting comprises five dimensions: listening with full attention; non-judgmental acceptance of the self and the child; emotional awareness of the self and the child; self-regulation in the parenting relationship; and compassion for the self and the child. These authors highlight the fact that parents who engage more in mindful parenting can create a family context where there is more satisfaction, higher quality relationships, lower levels of parenting stress and greater youth wellbeing. Comparably, higher levels of mindful parenting have been associated with less psychopathology in parents, more functional parenting styles, less self-critical rumination, better self-regulation, and more self-compassion in parents (Bögels et al., 2014; Coatsworth et al., 2015; Geurtzen et al., 2015; Gouveia et al., 2016; Moreira & Canavarro, 2018; Moreira et al., 2018). A number of studies has also found that mindful parenting contributes to better mental health in adolescents. In fact, adolescents whose parents reveal higher levels of mindful parenting show less symptoms of anxiety and depression, less externalizing psychopathology, more self-compassion, better emotional regulation, more mindful awareness, and better coping strategies (Bögels et al., 2014; Farto, 2018; Geurtzen et al., 2015; Moreira et al., 2018).

#### Compassion, Self-Compassion and Mental Health

Gilbert (2010, p. 3) has defined compassion as "a sensitivity to the suffering of self and others, with a deep commitment to try to relieve it". The same author links compassion to the caring social mentality that derives from attachment and nurturing behaviour (Gilbert, 2009). Indeed, origins of compassion can be traced back to innate mammalian caregiving of offspring that, in humans, has evolved through high-level cognitive competencies such as reasoning, empathizing, and knowing/mind awareness, intricate social and cultural practices, and self-identity matters, into a complex social mentality that we call compassion (Gilbert, 2015b, 2019,

2020). In fact, compassion is a dynamic and interactional process that can flow in three directions: compassion from ourselves to others, from others to ourselves, and compassion we can direct to ourselves (self-compassion) (Gilbert, 2014, 2020).

Compassion is central to prosocial behaviour and mental health (Gilbert, 2014). In fact, when we shift into care and compassion motivation, we become sensitive to ours and others suffering, and try to understand it and be helpful at alleviating it, possibly through affiliative behaviours such as calming, soothing, and connecting, which allow for distress to be regulated (Gilbert, 2020; Kirby et al, 2019). Accordingly, multiple studies have linked compassion to wellbeing. For instance, compassion for others has been associated with greater mental health and better interpersonal relationships (Kirby, 2017; McDonald et al., 2021). Regarding compassion from others, Hermanto and colleagues (2016) found that being open and receptive to care and kindness from others can buffer the effect of self-criticism on depression. It appears, though, that self-compassion has been the major focus of the existing studies, which highlight that individuals who are more compassionate towards themselves tend to have increased feelings of happiness, optimism, connectedness, life satisfaction and lower levels of anxiety, depression, rumination, and self-criticism (Barnard & Curry, 2011; Bluth & Neff, 2018; Leary et al., 2007; López et al., 2018; Neff, 2009; Neff, Kirkpatrick, et al., 2007; Neff, Rude, et al., 2007). Similar results have been found in adolescents, with those with higher levels of selfcompassion revealing more resilience, coping skills, psychological adjustment, less depression and anxiety, lower levels of self-criticism, and greater feelings of social connectedness (Cunha et al., 2013; Neff & McGehee, 2010). Neff and McGehee (2010) also found that maternal support, harmonious family functioning and secure attachment predicted higher levels of selfcompassion in adolescents.

Regarding COVID-19 unprecedented times, some studies have already highlighted the role of self-compassion as a buffer against the impact of the pandemic on mental health and wellbeing (Jiménez et al., 2020; Kavakli et al., 2020; Lau et al., 2020; Li et al., 2021; Matos et al., submitted manuscript). For example, Matos and colleagues (submitted manuscript) found that self-compassion significantly moderated (buffered) the impact of fear of contracting COVID-19 on depression, anxiety, and stress, and also moderated the effects of the perceived likelihood of contraction on anxiety and stress. In addition, compassion from others was found to significantly moderate the negative impact of fear of contracting COVID-19 on social safeness and connectedness to others. Consistent with this, fears of compassion across the three

flows have been found to magnify the impact of the COVID-19 pandemic on mental health and social safeness (Matos et al., 2021b).

#### Family Emotional Climate, Parents' Life Satisfaction, and Mental Health

Family emotional climate, that is, the affective atmosphere of the family that indicates how a person feels inside the family, has been associated with wellbeing in adolescents and parents. In fact, adolescents with higher satisfaction with their families reported higher levels of self-esteem, better mental health, life satisfaction, hope and optimism and lower levels of psychopathology and hopelessness (Phillips, 2012; Shek, 1997). Similarly, McKeown and colleagues (2003) found that parents who felt satisfied with their parental role had better parent-child relationships which increased wellbeing in parents and their children. Indeed, higher levels of life satisfaction have been positively correlated to positive affect, self-esteem, and optimism, and negatively correlated to negative affect, pessimism, depression, and perceived stress (Pavot & Diener, 2008). Additionally, Diener and colleagues (1999) found that the experience of undesirable events was negatively related to life satisfaction.

In the present study, we will explore parents' life satisfaction in their role as a parent and adolescents' family emotional climate. Family emotional climate can be examined through Gilbert's tripartite model of affect regulation, that suggests that emotions serve three major evolved functions: to detect threats and activate defensive strategies (threat/protection system); to seek resources and activate acquisition strategies (drive/reward system); and to provide information regarding safeness, allowing for rest and digest and enabling states of contentment and peacefulness (affiliative/soothing system) (Gilbert, 2005, 2014). While all three systems are integrated, coregulate each other and serve adaptive functions that allow us to survive and thrive, when individuals present an overactivation of the threat and drive systems and difficulties accessing the affiliative system they become more likely to develop mental health problems (Gilbert, 2014, 2015a). It is known that affiliative behaviours, such as the ones created through the caring relationships we establish within our families, have a potential quality of calming and soothing, making us feel safe and content by down regulating threat and toning down the need to seek resources or rewards (Gilbert, 2014, 2015a). Therefore, a better access of the affiliative/soothing system is recognized to contribute to mental health, prosocial behaviour, and the ability to process and respond to threats (Gilbert, 2014, 2015a). Taking this in consideration, we admit that a better access of the affiliative/soothing system is linked to a more positive family emotional climate, which reflects how the adolescent feels inside their family, which, in turn, is linked to their mental health and wellbeing.

#### The present study

Although a few studies have assessed the impact of the COVID-19 pandemic on parents and adolescents' wellbeing, as well as over their relationship, we aimed to further explore this impact, while investigating its links to mindful parenting, compassion, and self-compassion. Firstly, and in order to better understand the specific features of our sample in regard to the COVID-19 pandemic, one of the goals of this study was to explore several aspects related to safety measures, previous infection by the coronavirus, or social support during these complicated times, both in parents and adolescents, as well as the perceived impact of the pandemic on parents and their children in regard to major areas of their life (e.g., family, social, academic).

More specifically, the current investigation was divided in three different studies, each one with its individual aims.

# Study 1. The impact of the COVID-19 pandemic on parents and its relationship with Mindful Parenting and Compassion for Children.

First, we aimed to investigate the impact of the pandemic on parents' overall life and on their role as a parent, as measured by indices of depression, anxiety, or their satisfaction with life in the role as a parent. Furthermore, we intended to evaluate if the impact of the pandemic on the parental role is linked to parents' satisfaction with life through mindful parenting or compassion for children. Based on previous research, we hypothesized that a more negative impact of the pandemic on parents' lives would be linked to more depression and anxiety and lower levels of life satisfaction as parents (H1). We also expected the relationship between the impact of the pandemic on the parental role and parents' life satisfaction in their role as a parent to be mediated by mindful parenting (H2) and parents' compassion for their children (H3).

# Study 2. The impact of the COVID-19 pandemic on adolescents and its relationship with Compassion from Parents.

Similarly to the first study, we then aimed to investigate the impact of the pandemic on adolescents' overall life and on their family, as measured by indices of depression, anxiety, or soothing emotions in the family. Moreover, we intended to assess if the impact of the pandemic on the adolescents' family was linked to the soothing emotions adolescents feel inside their family through compassion from parents. Comparably to the parents' study, we hypothesized that adolescents reporting a more negative impact of the pandemic would also report more depression and anxiety and lower levels of soothing emotions in the family (H4). Specifically

regarding the impact of the pandemic on adolescents' family, we hypothesize that its relationship with adolescents' perceived soothing emotions in the family would be mediated by the compassion they receive from their parents (H5).

# Study 3. The impact of the COVID-19 pandemic on parents and its effects on their children: The role of compassion for children and mindful parenting.

The third study aimed to examine how the impact of the pandemic on parents would affect their children, as measured by the levels of soothing emotions adolescents feel inside their family, or, on the other hand, adolescents' levels of self-compassion. Furthermore, we intended to explore whether the impact of the pandemic on the parental role was associated with adolescents' perceived soothing emotions in the family or with self-compassion through parents' compassion for their children. Consistent with previous research that links parents and children's psychological measures, we hypothesized that parents reporting a more negative impact of the pandemic would have children who report lower levels of soothing emotions inside their family and less self-compassion (H6). Additionally, we expected that parents who are more compassionate towards their children or present higher levels of mindful parenting, would have children with higher levels of self-compassion (H7). We also hypothesized that the relationship between the impact of the pandemic on the parental role and adolescents' perceived soothing emotions in the family would be mediated by parents' compassion for their children (H8) and mindful parenting (H9). Finally, we expected that the relationship between the impact of the pandemic on the parental role and adolescents' levels of self-compassion would be mediated by parents' compassion for their children (H10) and mindful parenting (H11).

#### Method

#### **Participants**

Given the purpose of this study, parents of adolescents between 12 and 18 years old and one of their adolescent children were recruited for this study.

This sample included 73 parents (only one of the parents per family) and 45 adolescents (only one adolescent per family). In the parents' sample, 61 (83.6%) parents were female and 12 (16.4%) were male, with a mean age of 47.28 (SD = 5.66, range = 34 - 60). The average years of education were 12 (M = 13.54; SD = 4.56). Regarding the geographic area of residence, 27 (37%) parents lived in Coimbra, 25 (34.2%) in Leiria, 14 (19.2%) in Aveiro, two (2.7%) in Viseu, one (1.4%) in Santarém, and one (1.4%) in Braga. Three parents (4.1%) did not give

information about their area of residence. The majority of parents (43.8%) had a medium socioeconomic level, followed by high (28.8%) and low socioeconomic levels (15.1%). Five parents (6.8%) chose not to answer in regard to their profession, and four (5.5%) are currently not working, so information relating to their socioeconomic level is missing. In terms of marital status, 48 parents were married (65.8%), 13 (17.8%) had a non-marital partnership, nine (12.3%) were separated or divorced, two (2.7%) were widows, and one (1.4%) was single. Most parents (48) had two children (65.8%), 14 (19.2%) had only one child, nine parents (12.3%) had three, one (1.4%) had four, and one (1.4%) had five children. In terms of psychological support, 68 (93.2%) parents reported that they were not currently undergoing therapy, while four (5.5%) reported that they were. One parent (1.4%) chose not to answer to this question. There were statistically significant gender differences in age ( $t_{(65)} = -2.68$ ; p = .009), with fathers in our study being significantly older than mothers. Cohen's *d* for age revealed to be large (d = .9). On the other hand, there were no significant gender differences in years of schooling ( $t_{(50)} = -.14$ ; p = .888.), socioeconomic level (p = 1.000, Fisher's Exact Test), or marital status (p = .276, Fisher's Exact Test).

In the adolescents' sample, 27 (60%) adolescents were female and 18 (40%) were male, with a mean age of 15.52 (SD = 1.76, range = 12 - 18). The average years of education were 10 (M = 10.16; SD = 1.59). In terms of geographic area of residence, 18 (40%) adolescents lived in Leiria, 11 (24.4%) in Aveiro, nine (20%) in Coimbra, two (4.4%) in Santarém, one (2.2%) in Setúbal, and one (2.2%) in Rio de Janeiro. Three (6.7%) teens did not give any information relating to their area of residence. Concerning psychological counselling, 38 (84.4%) adolescents reported they were not currently undergoing therapy, while six (13.3%) revealed that they were. One adolescent (2.2%) chose not to answer to this question There were no statistically significant gender differences in age ( $t_{(40)} = -.28$ ; p = .784) or years of schooling ( $t_{(41)} = -.40$ ; p = .692).

A third sample was then generated by pairing up the parent who answered the protocol and his/her child. In the end, it was only possible to pair up 25 parents and their children. This sample was used for the third study comprised in this investigation.

#### Procedure

This study was approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra (CEDI; February 17<sup>th</sup>, 2021). Following its approval, the study was promoted among several schools of the country, where it was shared

to the parents of adolescents attending those same schools. Furthermore, the research team advertised the study online through social media, using a video where the purposes of the investigation were explained and where participants were invited to fill out the online surveys. The recruitment occurred between February and May of 2021.

Participants were invited to participate in a study about the impact of the COVID-19 pandemic on the relationship between parents and their children, which was carried out through an online survey. Only one of the parents and one of his/her adolescent child (if the parent had more than one child who was a teenager) were recruited for this study. The assessment protocol was provided to the participants through a data collection website (LimeSurvey). The first page of the online protocol included a brief explanation of the research's purposes and its confidentiality. Participants were informed that no information collected could identify them and that their participation was voluntary. The protocol was only completed by the ones who agreed to these terms and gave their informed consent. Moreover, the adolescent sample only filled out the surveys after their parents gave their informed consent. The completion time of the protocol took around 20 minutes.

In order to pair up parents and their children, participants were asked to create an identification code in the beginning of their protocol, consisting of the adolescents' initials and date of birth (parents were given the instruction to write this identification code relating to their adolescent who was participating in the study).

#### Measures

#### Sociodemographic data

Concerning sociodemographic data, the first questionnaire for both protocols (parents' and children's) included questions regarding age, gender, geographic area of living, school years and current psychological counselling. In the parent's protocol there were also questions related to their profession, marital status and the number, gender, and age of their children.

#### Impacts of the COVID-19 Pandemic Inventory

To obtain some information related to the Covid-19 pandemic and its impact on the participant's life we included an inventory comprising items regarding: the number of people the participant shared the house with; social distancing, assessed in four categories: "self-isolation in a specific area of the house", "social isolation with limited outings just to buy food

or medicine", "social distancing keeping a safe distance from other people outside the house" or "I don't usually practice social distancing"; health risks of themselves and of someone close to them, and themselves or others close to them being previously infected by the coronavirus, all assessed in four categories: "yes", "no", "I don't know" or "I prefer not to answer"; and perceived social support during the pandemic assessed through a 10-point Likert scale ranging from 1 ("not at all") to 10 ("very much"). In order to examine who the participants felt supported by, they could choose one or more of the following options: "nuclear family", "children/parents", "extended family", "friends", "girlfriend/boyfriend/partner", "colleagues", "others", "no one", or "it wasn't necessary". We also added a measure of the impact of the pandemic in several major life areas (social, family and health) which was assessed through a 10-point Likert scale ranging from 1 ("extremely negative impact") to 10 ("extremely positive impact"). In the parents' protocol, we added questions regarding professional status and work regime during the pandemic which were assessed in four categories: "in the workplace", "working from home", "mixed (sometimes working from home, sometimes in the workplace)", "layoff", "I lost my job" or "I was already unemployed before the pandemic". Moreover, questions about the impact of the pandemic on their role as a parent and on the social and emotional wellbeing of their children (as perceived by the parent) were added. In the adolescents' protocol, questions concerning the impact of the pandemic on their academic life, on their relationship with siblings (if that was the case) and on the social and emotional wellbeing of their parents (as perceived by the adolescent) were also included. All the questions regarding the impact of the pandemic, both in parents' and adolescents' protocol were assessed through a 10-point Likert scale ranging from 1 ("extremely negative impact") to 10 ("extremely positive impact").

#### Self-Report Questionnaires

Participants then completed a set of self-report instruments, as described below.

The *Depression, Anxiety and Stress Scale* (DASS-21; Lovibond & Lovibond, 1995; Portuguese Version: Pais-Ribeiro et al., 2004; Portuguese adaptation for adolescents: Pires & Salvador, 2021) is a self-report questionnaire that aims to assess depression, anxiety, and stress through 21 items rated on a 4-point Likert scale that ranges from 0 ("didn't apply to me at all") to 3 ("applied to me most of the time"). Participants are requested to answer based on the way they felt during the previous week. The original version contains 42 items equally distributed across three dimensions: 1) Depression; 2) Anxiety and 3) Stress. Both the original study and

the Portuguese version for adults revealed good internal consistency (.84  $\leq \alpha \leq$  .91, and .74  $\leq \alpha \leq$  .85, respectively). The Portuguese version is a reduced measure of the original DASS, with only 21 items that assesses the same three constructs described in the original version. The Portuguese version also revealed convergent validity. In the current study only the Depression and the Anxiety scales were used, revealing adequate to excellent internal consistencies across the three studies (.74  $\leq \alpha \leq$  .92).

The Compassion Engagement and Action Scales (CEAS; Gilbert et al., 2017; Portuguese Version for Adolescents: Cunha et al., submitted manuscript) is a self-report questionnaire that aims to assess compassion competencies. It comprises 30 items rated on a 10-point Likert scale that ranges from 0 ("never") to 10 ("always"), equally distributed across three different scales: Self-compassion; Compassion for Others; and Compassion from Others. Each scale consists of 6 items related to the ability to be motivated and turning towards suffering (compassion "Engagement") and 4 items that indicate competencies to act on what is helpful to alleviate or prevent suffering (compassionate "Actions"). The original scales presented good internal consistency  $(.72 \le \alpha \le .94)$  and temporal reliability  $(.59 \le r \le .75$  within a 1-month period). The Portuguese version for adolescents revealed the same model found in the adults' version and showed satisfactory to excellent internal consistency (.69  $\leq \alpha \leq$  .94), reasonable construct validity and excellent test-retest reliability (.97  $\leq r \leq$  .98 within a 1-month period). In the present study, the parent's protocol only included the Self-compassion and the Compassion for Others scales. The latter was adapted to cover only parent's compassion for their children (e.g., item 1 – "I am motivated to engage and work with other peoples' distress when it arises" – was transformed into "I am motivated to engage and work with my child/children's distress when it arises"). In the adolescents' protocol only the Self-compassion and the Compassion from Others scales were included, with this last one being adapted to refer to the adolescents' perception of their parents' compassion towards them (e.g., item 1 – "Other people are actively motivated to engage and work with my suffering" - was transformed into "My parents are actively motivated to engage and work with my suffering"). In this study, Cronbach's alphas ranged from .76 to .98 across the three studies, revealing adequate to excellent internal consistencies.

In addition to the previous scales that were included in both protocols, there were specific questionnaires for parents and for their children. The following self-report questionnaires were only added to the parents' protocol.

The Interpersonal Mindfulness in Parenting scale (IM-P; Duncan, 2007; Portuguese version: Moreira & Canavarro, 2017) is a self-report scale that is intended to measure mindful parenting through 29 items rated on a 5-point Likert scale that ranges from 1 ("never true") to 5 ("always true"). The original version consisted of 8 items equally distributed across four factors: Present-centred Attention; Emotional Awareness; Non-reactivity; and Non-Judgmental Acceptance. This version revealed Cronbach's alphas ranging between .45 and .66, with the total scale presenting a Cronbach's alpha of .72. The original study also showed construct, convergent, discriminant, and concurrent-predictive validities. In order to better assess the five dimensions proposed in the mindful parenting theoretical model (Duncan et al., 2009), the authors expanded the original scale to a 31-item questionnaire that was hypothesized to have five subscales. However, the psychometric properties of this scale were only investigated by Bruin et al. (2014) in a Dutch population. The Dutch IM-P revealed a six-factor structure with 29 items, Cronbach's alphas between .45 and .89 and construct validity. The Portuguese study revealed that the Portuguese IM-P has 29 items distributed across five subscales: Non-judgmental Acceptance of Parental Functioning (7 items); Self-regulation in Parenting (8 items); Compassion for the Child (6 items); Listening with Full Attention (5 items); and Emotional Awareness of the Child (3 items). The scale also demonstrated adequate internal consistency for all the subscales ( $.70 \le \alpha \le .86$ ), excellent internal consistency for the total scale ( $\alpha = .93$ ) and convergent validity. In the present study, only the total score of the scale was used, revealing excellent internal consistency in the parents' study ( $\alpha = .93$ ), and high internal consistency in the study where parents were paired up with their children ( $\alpha = .89$ ).

The Satisfaction With Life as a Parent Scale (SWLPS; adaptation by Albuquerque et al., 2020) aims to assess one's overall satisfaction with their life as a parent, and it results from an adaptation of the Satisfaction With Teacher's Professional Life Scale (SWTLS; Albuquerque et al., submitted manuscript) which, in turn, is a Portuguese version for teachers of the Satisfaction with Life Scale (SWLS; Diener et al., 1985). Both the original version of the SWLS and the Portuguese version for teachers have 5 items rated on a 5-point Likert scale ranging from 1 ("I completely disagree") to 5 ("I completely agree"). The original version is intended to measure one's overall life satisfaction through various components of subjective wellbeing and its study revealed good internal consistency ( $\alpha = .87$ ) and high temporal reliability (r = .82 within 2 months). The Portuguese version for teachers was adapted to cover parents' satisfaction with life in their role as a parent (e.g., item 2 – "The conditions of my life as a teacher are very

good" – was transformed into "The conditions of my life as a parent are very good"). In the parents' study, this scale demonstrated high internal consistency ( $\alpha = .83$ ); in the study where parents were paired up with their children this scale revealed adequate internal consistency ( $\alpha = .72$ ).

In the adolescents' protocol, there were also several questionnaires exclusive to this population. Their descriptions are presented next.

The Emotional Climate in Families Scale for Adolescents (ECFS-A; adaptation by Albuquerque et al., 2020) was adapted from the Emotional Climate in the Classroom Scale (ECCS; Albuquerque et al., 2018) that intends to measure student's perception of their classroom's emotional environment, that is, the way they feel in their classroom, through 15 items rated on a 5-point Likert scale that ranges from 0 ("never") to 4 ("many times"). Participants are asked to answer based on the way they felt for the last two weeks. According to a thesis by Henriques (2019), that presents a preliminary study about the psychometric characteristics of this scale, the 15 items are equally distributed across three dimensions based on Gilbert's emotional regulation systems: Drive, Threat and Soothing. The ECCS presents adequate internal consistency (.70  $\le \alpha \le$ .86) and good test-retest reliability (.61  $\le r \le$ .77 within a 4-week period). In the present study, this scale was adapted to cover adolescent's perception of their family environment. To do so, the instructions were transformed so that the participants answered accordingly to the way they felt in their family instead of the way they felt in their classroom. Moreover, the initial phrase of the items was changed from "In the classroom I feel..." to "In my family I feel...". In this study, only the soothing dimension was used, revealing high internal consistency in the adolescents' study ( $\alpha = .84$ ), and adequate internal consistency in the study where children and parents were paired up ( $\alpha = .77$ ).

#### Data analysis

After being collected through the online surveys, data was exported to the SPSS program (Statistical Package for the Social Sciences version 22; Armonk, NY: IBM Corp.).

In order to assess adherence to normality, skewness and kurtosis of each variable were examined using Kline's criteria (2005). According to this author, skewness values between -3 and 3 and kurtosis values between -8/-10 and 8/10 were considered reasonably normally distributed. Outlier's analysis was performed by graphing the results (box diagrams). To detect multicollinearity, the variance inflation factor (*VIF* < 5) and the correlation matrix for all

constructs were examined (Kline, 2005). For each instrument and its factors, internal consistency indices were calculated. Considering Pestana and Gageiro's (2008) stipulated values, Cronbach's alphas of less than .60 reveal an inadmissible value of internal consistency, between .60 and .70 it is considered weak, between .70 and .80 acceptable, between .80 and .90 high, and between .90 and 1 excellent.

To understand if gender differences for variables under study were significant, independentsamples T-tests were used. The interpretation of the effect size parameter was based on Cohen's criteria (1988), in which Cohen's d values around .2 are considered small, .5 medium and .8 large.

To carry out the correlations, and to better understand the relationship between sociodemographic variables and variables under study, the parametric Pearson test was conducted. In the third study, since the sample size was small (N = 25), correlations were conducted with the non-parametric equivalent - Spearman's correlation. In assessing the magnitude of correlations, the values given by Pestana and Gageiro (2008) were considered: a correlation coefficient lower than .20 reveals a very low association, between .21 and .39 low, between .40 and .69 moderate, between .70 and .89 high and between .90 and 1 an excellent association.

In Study 1, in order to examine whether the impact of the COVID-19 pandemic on the parental role would be associated with parents' satisfaction with life in their role as a parent through mindful parenting or compassion for children, two mediation models were estimated with PROCESS (Hayes, 2018). In the first model (Fig 1.), the impact of the pandemic on the parental role was used as an independent variable; mindful parenting was entered as a mediator; and satisfaction with life in the role as a parent was tested as a dependent variable (model 4 in Hayes, 2018). The second model (Fig 2.), comprised the impact of the pandemic on the parental role as an independent variable; model to the pandemic on the parental role as an independent variable (model 4 in Hayes, 2018). The second model (Fig 2.), comprised the impact of the pandemic on the parental role as an independent variable; compassion for children as a mediator; and satisfaction with life in the role as a dependent variable (model 4 in Hayes, 2018).

In the second study, a similar model was estimated, in order to assess whether the impact of the COVID-19 pandemic on adolescents' family would be associated with the soothing emotions adolescents feel inside their family through compassion they receive from their parents. In this model (Fig. 3), the impact of the pandemic on the family was used as an independent variable; compassion from parents was entered as a mediator; and adolescents'

perceived soothing emotions in the family was tested as a dependent variable (model 4 in Hayes, 2018).

In the third study, four mediation models similar to the ones in the first and second studies were estimated with PROCESS (model 4 in Hayes, 2018), in order to examine if compassion for children or mindful parenting would mediate the association between the impact of the COVID-19 pandemic on the parental role and the soothing emotions adolescents feel inside their family and between the impact of the pandemic on the parental role and children's self-compassion. In the first two models, the impact of the pandemic on the parental role was entered as the independent variable, and adolescents' perceived soothing emotions in the family as the dependent variable, while exploring the mediating role of compassion for children (Fig. 4) and mindful parenting (Fig.5). In the two last models, the impact of the pandemic on the pandemic on the parental role was hypothesized as the dependent variable, while exploring the mediating role of compassion for children (Fig. 6) and mindful parenting (Fig.7).

In all the models, the indirect or mediation effect was assessed using a bootstrapping procedure with 10.000 resamples. This procedure creates a 95% bias-corrected and accelerated confidence intervals of the indirect effects, which are considered significant (p < .050) if zero is not contained within the lower and upper bounds of the confidence intervals.

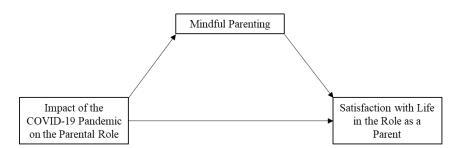


Fig 1. Conceptual diagram of the first proposed mediation model (Process Model 4).

Fig 2. Conceptual diagram of the second proposed mediation model (Process Model 4).

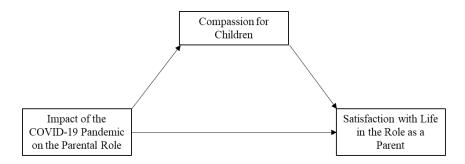


Fig 3. Conceptual diagram of the third proposed mediation model (Process Model 4).

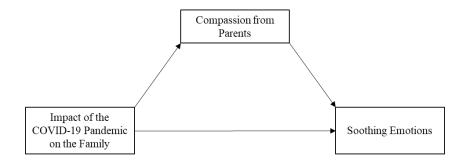


Fig 4. Conceptual diagram of the fourth proposed mediation model (Process Model 4).

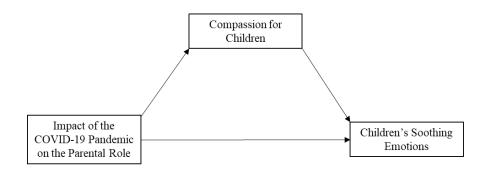


Fig 5. Conceptual diagram of the fifth proposed mediation model (Process Model 4).

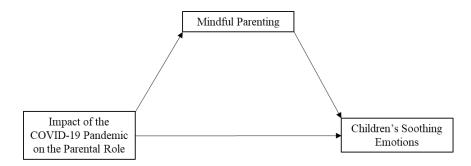


Fig 6. Conceptual diagram of the sixth proposed mediation model (Process Model 4).

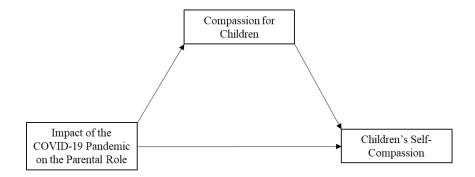
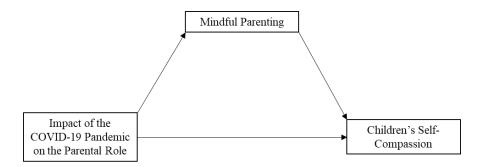


Fig 7. Conceptual diagram of the seventh proposed mediation model (Process Model 4).



#### Results

#### **Preliminary Results**

There were no severe violations to the normal distribution of the variables under study, with values of skewness and kurtosis within normal values (between -.89 and 2.33 for values of skewness; between -.87 and 5.81 for values of kurtosis) Only one outlier was found for two of the variables under study (depression and anxiety in the parents' study), so we opted to keep it

in favour of ecological validity. When gender differences for variables under study were investigated (*T*-test for independent samples), no significant differences were found in all three studies. There were no multicollinearity problems among study variables when inspecting the variance inflation factor (VIF < 5).

#### **COVID-19** Associated Features

#### Parents' sample

In terms of the current pandemic situation, parents in our study shared the house with the average of three people (M = 3.18; SD = .93). Concerning safety measures, 53 (72.6%) parents said they were practicing social distancing keeping a safe distance from other people outside their house, 19 (26%) reported they were in social isolation with limited outings just to buy food or medicine, and one (1.4%) parent revealed that she did not usually practice social distancing. Parents reported that they had been practicing these measures for the average of 40 weeks (M = 32.95; SD = 19.59). Moreover, 61 (83.6%) parents mentioned they did not have health conditions that made them more susceptible for the coronavirus infection, nine (12.3%) admitted that they did, and three (4.1%) said they did not know. In terms of having someone close to them in that risk group, 40 (54.8%) said that they did not, 29 (39.7%) revealed that they did, and four (5.5%) said they did not know. Concerning being previously infected by the virus, 65 (89%) parents said they had not, four (5.5%) revealed that they had been infected, and four (5.5%) reported that they did not know. Furthermore, 48 (65.8%) parents revealed that no one close to them had been infected by the virus, while 22 (30.1%) parents disclosed that someone close to them had been infected. Three (4.1%) parents admitted they did not know if someone close to them had been infected or not.

In terms of feeling supported by significant others during the pandemic, 72.6% of parents reported feeling very supported, scoring 7 or more points on the perceived social support scale ranging from 1 ("not at all") to 10 ("very much"). In the support options, 51 (69.9%) parents selected their nuclear family, 25 (34.2%) selected their friends, 11 (15.1%) selected their children, 11 parents (15.1%) selected their partner, seven (9.6%) selected their colleagues, five (6.8%) selected "others", which included answers like "everyone", "family doctor", "neighbours" or "social assistant", five (6.8%) said they were not supported by anyone, and two parents (2.7%) said the support was not necessary.

Regarding professional status and work regime during the first wave of the pandemic, 27 parents (37%) revealed that they were working in their usual workplace, 16 (21.9%) said they were working from home, 11 (15.1%) reported they were in "layoff", seven (9.6%) reported they were in a mixed work regime (sometimes in the workplace, sometimes from home), seven (9.6%) revealed they were already unemployed before de COVID-19 pandemic, and five parents (6.8%) said they had lost their job. Concerning their current professional status and work regime, 45 parents (61.6%) revealed that they were working in their usual workplace, 10 (13.7%) said they were working from home, six (8.2%) reported they were in a mixed regime (sometimes in the workplace, sometimes from home), six (8.2%) revealed they were already unemployed before de COVID-19 pandemic, three parents (4.1%) reported they were currently in "layoff", and three (4.1%) said they had lost their job during the pandemic. Parents reported being in this current work regime or professional status for the average of 25 weeks (M = 32.95; SD = 19.59).

#### Adolescents' sample

In regard to the pandemic situation, adolescents in our study shared the house with the average of three people (M = 2.93; SD = .96). Concerning safety measures, 25 adolescents (55.6%) said they were practicing social distancing keeping a safe distance from other people outside their house, 17 (37.8%) reported they were in social isolation with limited outings just to buy food or medicine, two (4.4%) revealed that they did not usually practice social distancing, and one adolescent (2.2%) revealed that he was in self-isolation in a specific area of his house. Furthermore, 42 teens (93.3%) mentioned not having health conditions that made them more susceptible for the coronavirus infection, one (2.2%) admitted that she had, and two (4.4%) said they did not know. In terms of having someone close to them in that risk group, 22 (48.9%) said that they did, 14 (31.1%) revealed that they did not, and nine (20%) said they did not know. Moreover, 21 adolescents (46.7%) revealed that no one close to them had been infected by the virus, and 21 (46.7%) disclosed that someone close to them had been infected, two (4.4%) teens reported they did not know, and one (2.2%) chose not to answer.

In terms of feeling supported by significant others during the pandemic, 75.5% of adolescents reported feeling very supported, scoring 7 or more points on the perceived social support scale ranging from 1 ("not at all") to 10 ("very much"). In the support options, 37

adolescents (82.2%) selected their nuclear family, 24 (53.3%) selected their friends, 11 (24.4%) selected their parents, six (13.3%) selected "others", which included answers such as "school", "teachers", "therapist", or "neighbours", two (4.4%) selected their boyfriend/girlfriend, two (4.4%) selected their extended family, and one (2.2%) said the support was not necessary.

#### **Descriptive Statistics**

In order to better understand how the COVID-19 pandemic has affected parents and adolescents in this study, we saw pertinent to present the frequencies of the perceived impact of the pandemic on parents' overall life (Table 1) and on their role as a parent (Table 2), as well as the perceived impact of the pandemic on adolescents' overall life (Table 3) and on their family life (Table 4).

**Table 1.** Frequencies of the Impact of the COVID-19 Pandemic on Parents' Overall Life

 (Study 1)

	Very Negative	Negative	Neutral	Positive	Very Positive
Life in General	17.8%	30.2%	37%	10.9%	4.1%
Professional Life	24.7%	19.2%	35.6%	16.4%	4.1%
Family Life	13.7%	16.4%	42.5%	17.8%	9.6%
Social Life	37%	26%	26%	6.9%	4.1%
Psychological Wellbeing	19.2%	28.8%	34.2%	11%	6.9%
Physical Health	17.8%	23.3%	34.2%	16.5%	8.2%

**Table 2.** Frequencies of the Impact of the COVID-19 Pandemic on the Role as a Parent (Study 1)

	Very Negative	Negative	Neutral	Positive	Very Positive
Role as a Parent	1.4%	13.7%	41.1%	26%	17.8%
Relationship with Children	0%	5.5%	34.2%	32.9%	27.4%
Relationship with Mother/Father of their Children	1.4%	8.2%	37%	24.6%	28.8%
Amount of Time with Children	2.7%	6.9%	30.1%	28.8%	31.5%
Quality of Time with Children	2.7%	9.6%	31.5%	26.1%	30.1%
Balance between Professional Life and Children	8.2%	11%	39.7%	26%	15.1%
Perceived Impact on Children	8.2%	35.6%	38.4%	15.1%	2.7%

	Very Negative	Negative	Neutral	Positive	Very Positive
Life in General	15.6%	28.8%	35.6%	20%	0%
Academic Life	11.1%	33.3%	37.8%	8.9%	8.9%
Family Life	15.6%	8.8%	46.7%	24.5%	4.4%
Social Life	11.1%	33.3%	40%	11.2%	4.4%
Psychological Wellbeing	8.9%	35.5%	46.7%	8.9%	0%
Physical Health	4.4%	31.2%	35.5%	22.2%	6.7%

**Table 3.** Frequencies of the Impact of the COVID-19 Pandemic on Adolescents' Overall Life(Study 2)

**Table 4.** Frequencies of the Impact of the COVID-19 Pandemic on the Adolescents' Family(Study 2)

	Very Negative	Negative	Neutral	Positive	Very Positive
Satisfaction with Family Life	8.9%	15.5%	40%	20%	25.6%
<b>Relationship with Parents</b>	4.4%	4.5%	48.9%	35.5%	15.6%
Amount of Time with Parents	4.4%	2.3%	33.3%	37.8%	22.2%
Quality of Time with Parents	2.2%	6.7%	37.8%	31.1%	22.2%
Balance between Academic Life and Parents	2.2%	15.6%	48.9%	20%	13.3%
Relationship with Siblings $(N = 38)$	21.1%	5.2%	26.3%	36.9%	10.5%
Perceived Impact on Parents	8.9%	26.7%	44.4%	13.3%	6.7%

Study 1. The impact of the COVID-19 pandemic on parents and its relationship with Mindful Parenting and Compassion for Children.

# The relationship between the impact of the COVID-19 pandemic and parents' mental health and parental role

Descriptive statistics and correlations between variables under study are presented in Table 5. The correlation analyses revealed that the positive impact of the COVID-19 pandemic on parent's overall life was not significantly associated with any of the variables under study, except the impact of the pandemic on the parental role. On the other hand, it was found that the positive impact of the COVID-19 pandemic on the parental role had negative and low, but significant associations with parents' depression and anxiety, and a moderate, positive, and significant association with parents' life satisfaction in their role as a parent. The positive impact of the pandemic on the parental role also revealed positive and low, but significant associations with self-compassion and mindful parenting. Since the positive impact of the

pandemic on the parental role did not show a significant association with compassion for children, the second hypothesized mediation model (which had the impact of the pandemic on the parental role as the independent variable, compassion for children as the mediator and parents' satisfaction with life in their role as a parent as the dependent variable) was excluded.

Additionally, moderate, positive, and significant correlations were found between mindful parenting, self-compassion, compassion for children, and satisfaction with life in the role as a parent. The correlation analyses also revealed moderate, negative, and significant correlations between mindful parenting and depression, and between mindful parenting and anxiety; low to moderate, negative, and significant correlations between self-compassion and depression, and between self-compassion and depression, and between self-compassion and depression, and significant correlations between self-compassion and anxiety, and a low but significant correlation between compassion for children and depression. Compassion for children did not reveal a significant association with anxiety.

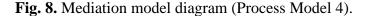
	Variables	1	2	3	4	5	6	7	8	M (SD)
1	Impact COVID-19 Overall Life	-								4.59 (1.79)
2	Impact COVID-19 Parental Role	.58**	-							6.72 (1.74)
3	Self-Compassion	.14	.24*	-						68.82 (15.68)
4	Compassion for Children	.07	.21	.43**	-					82.59 (11.63)
5	Mindful Parenting	.05	.26*	.54**	.45**	-				105.10 (15.37)
6	Depression	01	35**	43**	23*	59**	-			2.78 (3.57)
7	Anxiety	10	28*	29*	18	40**	.68**	-		2.07 (3.08)
8	Satisfaction with Life as a Parent	.21	.42**	.55**	.41**	.65**	52**	35**	-	20.19 (3.95)

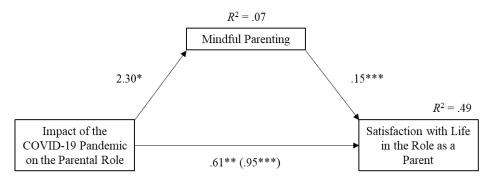
**Table 5.** *Means, standard deviation and matrix of inter-correlations among study variables - Study 1 (Total Sample N = 73)* 

*Note.* \**p* < .050; \*\**p* < .010.

# The Mediating Role of Mindful Parenting in the relationship between the Impact of the COVID-19 Pandemic on the Parental Role and Parents' Life Satisfaction in their Role as a Parent.

As presented in Fig. 8, the positive impact of the COVID-19 pandemic on the parental role was positively and significantly associated with mindful parenting, explaining 6.7% of its variance. The positive impact of the COVID-19 pandemic on the parental role was also positively and significantly associated with parents' life satisfaction in their role as a parent, explaining 49.03% of its variance. The total effect of the positive impact of the pandemic on the parental role on parents' life satisfaction was also significant, explaining 17.49% of its variance. Direct, indirect, and total effects are presented in table 6.





*Note.* Path values represent unstandardized regression coefficients. In the arrow linking the impact of the COVID-19 pandemic on the parental role and satisfaction with life in the role as a parent, the value inside the parentheses represents the total effect of X on Y. \* p < .050; \*\* p < .010; \*\*\* p < .001.

Direct Effects	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic on the Parental Role ➡ Mindful Parenting	2.30	1.02	2,27	.027	.28/4.32
Impact of the COVID-19 Pandemic on the Parental Role Satisfaction with Life in the Role as a Parent	.61	.20	3.02	.004	.21/1.01
Mindful Parenting ➡ Satisfaction with Life in the Role as a Parent	.15	.02	6.58	<.001	.10/.19
Indirect Effects	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic on the Parental Role ➡ Mindful Parenting ➡ Satisfaction with Life in the Role as a Parent	.09	.04	-	-	.01/.16
Total Effect	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic on the Parental Role   Satisfaction with Life in the Role as a Parent	.95	.24	3.88	<.001	.46/1.44

**Table 6.** Summary of the direct, indirect, and total effects

While mindful parenting mediated the relationship between the positive impact of the COVID-19 pandemic on the parental role and parents' life satisfaction in their role as a parent, the results showed that the positive impact of the COVID-19 pandemic on the parental role maintained some of its direct effect on parents' life satisfaction in their role as a parent. Thus, mindful parenting only partially mediated the effect of the positive impact of the COVID-19 pandemic on the parental role and parents' life satisfaction in their role as a parent.

# Study 2. The impact of the COVID-19 pandemic on adolescents and its relationship with Compassion from Parents.

# The relationship between the impact of the COVID-19 pandemic and adolescents' mental health and emotional climate in the family.

Descriptive statistics and correlations between variables under study are presented in Table 7. The correlation analyses revealed that the positive impact of the COVID-19 pandemic on adolescents' overall life was not significantly associated with the soothing emotions adolescents feel inside their family, anxiety, self-compassion, or compassion from parents,

while it was negatively and significantly associated with adolescents' depression, although this association was low. The positive impact of the pandemic on adolescents' overall life also revealed a moderate, positive, and significant association with the positive impact of the pandemic on the family. The latter was found to have a high, positive, and significant association with compassion from parents and a moderate, positive, and significant, association with adolescents' perceived soothing emotions in the family. The positive impact of the pandemic on the family did not, however, show significant associations with teenagers' self-compassion, depression, or anxiety. Moreover, low to moderate, positive, and significant correlations between self-compassion and depression, and between self-compassion and anxiety, and low to moderate, negative, and significant correlations between compassion from parents and anytex.

	Variables	1	2	3	4	5	6	7	M (SD)
1	Impact COVID-19 Overall Life	-							4.90 (1.36)
2	Impact COVID-19 Family	.33*	-						6.45 (1.70)
3	Self-Compassion	03	.29	-					63.71 (13.01)
4	Compassion from Parents	.14	.74**	.40**	-				70.22 (24.22)
5	Depression	32*	18	31*	34*	-			4.36 (4.77)
6	Anxiety	18	24	32*	41**	.88**	-		3.36 (3.96)
7	Soothing emotions in the Family	.23	.47**	.35*	.63**	44**	38**	-	13.73 (3.88)

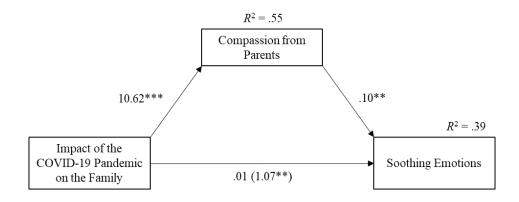
**Table 7.** *Means, standard deviation and matrix of inter-correlations among study variables - Study 2 (Total Sample N = 45)* 

*Note.* \**p* < .050; \*\**p* < .010.

### The Mediating Role of Compassion from Parents in the Relationship between the Impact of the COVID-19 Pandemic on the Family and the Soothing Emotions Adolescents feel inside their Family.

As presented in Fig. 9, the positive impact of the COVID-19 pandemic on the family was positively and significantly associated with compassion from parents, explaining 55.3% of its variance. The positive impact of the COVID-19 pandemic on the family was also positively and significantly associated with adolescents' perceived soothing emotions in the family, explaining 39.06% of its variance. The total effect of the positive impact of the pandemic on the family on the soothing emotions teenagers feel inside their family was also significant, explaining 21.76% of its variance. Direct, indirect, and total effects are presented in Table 8.

Fig. 9. Mediation model diagram (Process Model 4).



*Note.* Path values represent unstandardized regression coefficients. In the arrow linking the impact of the COVID-19 pandemic on the parental role and satisfaction with life in the role as a parent, the value inside the parentheses represents the total effect of X on Y. \*\* p < .010; \*\*\* p < .001.

The results show that the positive impact of the pandemic on the adolescents' family does not maintain a direct effect on adolescents' perceived soothing emotions in the family when compassion from parents is controlled for. Thus, compassion from parents totally mediates the effect of the positive impact of the pandemic on the family on the soothing emotions adolescents feel inside their family.

Direct Effects	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic					
on the Family $\implies$ Compassion from	10.62	1.46	7.29	< .001	7.69/13.56
Parents					
Impact of the COVID-19 Pandemic					
on the Family $\Longrightarrow$ Soothing Emotions	.01	.41	.02	.983	82/.84
inside the Family					
Compassion from Parents	.10	.03	3.45	.001	.04/.16
Soothing Emotions inside the Family	.10	.05	5.75	.001	.0+/.10
Indirect Effects	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic					
on the Family $\implies$ Compassion from	1.06	.31	_	_	.40/1.62
Parents  Soothing Emotions inside	1.00	.51	-	-	.40/1.02
the Family					
Total Effect	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic					
on the Family $\implies$ Soothing Emotions	1.07	.31	3.46	.001	.44/1.69
inside the Family					

Table 8. Summary of the direct, indirect, and total effects

Study 3. The impact of the COVID-19 pandemic on parents and its effects on their children: The role of compassion for children and mindful parenting.

# The relationship between the impact of the COVID-19 pandemic on parents and adolescents' mental health and emotional climate in the family

Descriptive statistics and correlations between variables under study are presented in Table 9. The correlation analyses showed that the positive impact of the COVID-19 pandemic on the parental role and on parents' overall life did not have significant associations with adolescents' anxiety, depression, or soothing emotions inside their family. Additionally, it was found that the positive impact of the COVID-19 pandemic on the parental role only had a moderate, positive, and significant association with adolescents' self-compassion. The correlation analyses also revealed a moderate, positive, and significant association between parents' compassion for their children and adolescents' self-compassion and no significant associations between mindful parenting and adolescents' measures of self-compassion, compassion from parents, depression, anxiety, or perceived soothing emotions in the family.

<b>Table 9.</b> Means, standard deviation and matrix of inter-correlations among study variables - Study 3 (Parents' sample $N = 25$ ; Children'	5
sample $N = 25$ )	

	Variables	1	2	3	4	5	6	7	8	9	10	M (SD)
1	Impact COVID-19 Parents' Overall Life	-										3.71 (1.60)
2	Impact COVID-19 Parental Role	.51**	-									6.59 (1.64)
3	Parents' Self- Compassion	.29	.39	-								69.32 (13.07)
4	Compassion for Children	03	.26	.46*	-							81.92 (11.93)
5	Mindful Parenting	.13	.36	.17	.29	-						105.56 (12.45)
6	Children's Self- Compassion	08	.42*	.15	.42*	.21	-					65.20 (13.51)
7	Compassion from Parents	.02	.28	05	.17	.28	.70**	-				72.16 (24.79)
8	Children's Depression	02	05	.20	07	18	24	44*	-			3.48 (4.83)
9	Children's Anxiety	34	39	.18	.08	02	39	55**	.73**	-		2.92 (3.64)
10	Children's Soothing Emotions in the Family	.11	.05	16	05	.15	.38	.59**	48*	44*	-	14.80 (3.22)

*Note.* \**p* < .050; \*\**p* < .010.

Since the positive impact of the pandemic on the parental role did not show significant associations with compassion for children or mindful parenting, all the mediation models of this study (that included these variables as mediators) were excluded. Given the small sample size of this study and its exploratory nature, we decided to hypothesize moderation models instead, which do not presuppose the existence of a link between the independent variable and the moderator. Considering that in a moderation model, the independent variable has an effect on the dependent variable, and that effect is moderated by a third variable (Hayes, 2018), we could only test these moderation models by entering the positive impact of the pandemic on the parental role as the independent variable and children's self-compassion as the dependent variable, since these were the only variables with a significant association between them. Therefore, we hypothesized that the relationship between the positive impact of the pandemic on the parental role and adolescents' levels of self-compassion would be strengthened by parents' compassion for their children (H12) or mindful parenting (H13). These two moderation models were estimated with PROCESS (model 1 in Hayes, 2018). Both had the impact of the pandemic on the parental role as the independent variable and children's selfcompassion as the dependent variable, although one had compassion for children as the moderator (Fig. 10), and the other had mindful parenting as the moderator (Fig. 11). The moderation effect was considered significant if the interaction between the independent variable and the moderator was significant (p < .050).

Fig 10. Conceptual diagram of the first proposed moderation model (Model 1).

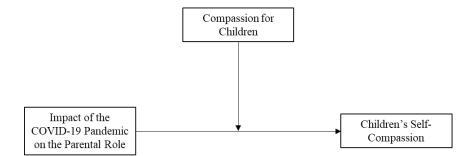
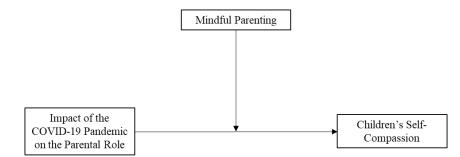


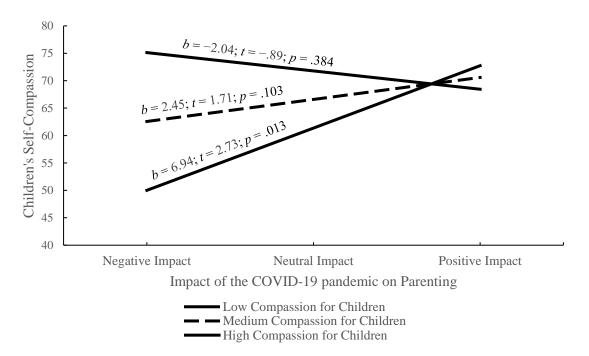
Fig 11. Conceptual diagram of the second proposed moderation model (Model 1).

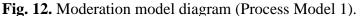


### The Moderating Role of Compassion for Children in the Relationship between the Impact of the COVID-19 Pandemic on the Parental Role and Children's Self-Compassion

As presented in Table 10, the interaction between the positive impact of the COVID-19 pandemic on the parental role and compassion for children was significant (b = -.38, p = .032), revealing the presence of a moderation effect. The positive impact of the COVID-19 pandemic on the parental role combined with the moderator interaction explained 39.55% of the adolescents' self-compassion's variance, considering that the interaction alone explained 15,21% of this variance. To better understand this effect, the moderator was divided in three parts, considering the mean and +/- 1 SD (Hayes, 2018).

As presented in Fig. 12, when levels of compassion for children were low, the relationship between the impact of the pandemic on the parental role and children's self-compassion was significant (b = 6.94, p = .013). For mean levels of compassion for children, the relationship was no longer significant (b = 2.45, p = .103), which was also true when the levels of compassion for children were high (b = -2.04, p = .384).





Direct Effects	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic on the Parental Role ➡ Self- Compassion	2.45	1.43	1.71	.103	53/5.43
Compassion from Parents  Self- Compassion	.44	.20	2.23	.037	.03/.84
Impact of the COVID-19 Pandemic on the Parental Role X Compassion from Parents  Self-Compassion	38	.16	-2.30	.032	72/04
Conditional Effects (Compassion from Parents)	b	SE	t	р	95% CIs
-11.93 (-1 <i>SD</i> )	6.94	2.54	2.73	.013	1.64/12.23
.00 ( <i>M</i> )	2.45	1.43	1.71	.103	53/5.43
11.93 (+1 <i>SD</i> )	-2.04	2.29	89	.384	-6.81/2.73

Table 10. Summary of the direct, and conditional effects

### The Moderating Role of Mindful Parenting in the Relationship between the Impact of the COVID-19 Pandemic on the Parental Role and Children's Self-Compassion

As presented in Table 11, the interaction between the positive impact of the COVID-19 pandemic on the parental role and mindful parenting was not significant (b = -.09, p = .575), which revealed that mindful parenting did not moderate the relationship between the positive impact of the pandemic on the parental role and adolescents' self-compassion. The direct effect of the impact of the pandemic on the parental role on children's self-compassion was also not significant (b = 2.87, p = .166), and neither was the direct effect of mindful parenting on children's self-compassion (b = .06, p = .813).

Direct Effects	b	SE	t	р	95% CIs
Impact of the COVID-19 Pandemic on the Parental Role ➡ Self- Compassion	2.87	2.00	1.44	.166	-1.29/7.02
Mindful Parenting  Self- Compassion	.06	.25	.24	.813	45/.57
Impact of the COVID-19 Pandemic on the Parental Role X Mindful Parenting ➡ Self-Compassion	09	.16	57	.575	41/.24

 Table 11. Summary of the direct effects

#### Discussion

The COVID-19 pandemic has affected people all around the globe, leading to an increasing effort to examine its impact on various aspects of life, including mental health. In fact, several studies have found that the pandemic has negatively impacted wellbeing and increased psychopathology levels (Brooks et al., 2020; Dubey et al., 2020; Mariani et al., 2020; Passos et al., 2020; Paulino et al., 2021). These adverse consequences have also been observed in parents (Janssen et al., 2020; Russel et al., 2020), adolescents (Magson et al., 2020), and their relationship (Daks et al., 2020; Russel et al., 2020). Considering that the pandemic and its consequent lockdowns have compelled the population to stay at home for longer periods of time, it seemed important to investigate how family systems, more specifically parents and their adolescents, have been impacted, and which factors could be involved in that said impact. A few studies have found self-compassion to act as a buffer against the impact of the pandemic in the general population (Jiménez et al., 2020; Lau et al., 2020; Li et al., 2021; Matos et al., submitted manuscript) and Matos and colleagues (submitted manuscript) found compassion from others to support social safeness in the context of the COVID-19 pandemic. Furthermore, some studies have hinted on the eventual role of mindful parenting in parents' wellbeing during the pandemic (Fuller & Fitter, 2020; Kabat-Zinn & Kabat-Zinn, 2021) and some have studied its implications on parent practices (Menter et al., 2021) and on mother-infant bonding (Fernandes et al., 2021) during these difficult times, although, to the best of our knowledge, no study had yet investigated the relationship between mindful parenting and the impact of the pandemic on parents and adolescents. Its links to wellbeing and mental health are, however, well studied both in parents (Bögels et al., 2014; Coatsworth et al., 2015; Duncan et al., 2009; Gouveia et al., 2016) and their children (Farto, 2018; Geurtzen et al., 2015; Moreira et al., 2018). All this considered, our study's aim was to examine the impact of the pandemic on parents and adolescents' mental health and its hypothesized relationship with processes often associated with mental health and wellbeing (different flows of compassion in the parent-child relationship – for self, for children and from parents – and mindful parenting).

The first aim of our study was to understand the features of our sample within the context of the COVID-19 pandemic. We found that most parents and adolescents were following safety measures and did not have any health conditions that made them more susceptible to the coronavirus infection. In terms of social support during the pandemic, the majority of participants reported feeling very supported during these times, indicating their nuclear family as the most frequent source of support. Considering the parents' sample, the majority of participants were employed and working in their usual workplace, and only a small amount had lost their jobs due to the pandemic situation (6.8% during the first wave of the pandemic; 4.1% during the second/third wave of the pandemic). Overall, it seems that the participants of this study were not particularly vulnerable to the adverse effects of the pandemic, in regard to their physical health, employment or social support.

Another aim of our study was to explore how much participants had been impacted by the COVID-19 pandemic in several areas of their lives. We found that almost half of parents reported a negative or very negative impact of the pandemic on the majority of aspects of their overall lives (life in general -48%; professional life -43.9%; psychological wellbeing -48%; physical health -41.1%) and most parents (63%) reported a very negative or negative impact of the pandemic on their social lives. In the second study, almost half of adolescents (44.4%) reported a negative or very negative impact of the pandemic on life in general, academic life, social life, and on their psychological wellbeing. These results are consistent with previous studies that found that the COVID-19 pandemic and its resulting lockdowns and social distancing measures have had negative consequences on several aspects of life for parents and adolescents (Ares et al., 2021; Janssen et al., 2020; Magson et al., 2020). However, it is worth noting that parents reported a more negative impact on their social lives than adolescents. In the younger population this impact may have not been as negative due to adolescents' facility in using the internet and social media to maintain frequent contact with their friends, which could have served as an aid to better cope with the lack of physical contact with peers during lockdown.

On the other hand, both parents and adolescents reported the impact of the pandemic on their family life as the least negative (69.9% of parents and 75.6% of adolescents reported a neutral or a positive/very positive impact of the pandemic on their family life). Overall, parents and adolescents felt that the pandemic had a more neutral or positive impact on their family, and particularly, on the parent-child relationship than it did on other areas of their lives. These findings are surprising in the sense that previous research has found that families, and parents specifically, are faced with additional stressors during the COVID-19 pandemic, which may exacerbate the negative psychological and relational consequences of these unprecedented times (Russel et al., 2020; Park et al., 2020). However, the fact that, in our sample, participants did not report a terribly negative impact of the pandemic on their lives, particularly on their family life, may be due to the fact that most parents and adolescents stated that they have felt very supported during these times, especially by their family. In fact, Mariani and colleagues

(2020) found that family support reduced the sense of loneliness and acted as a protective factor for the adverse mental health consequences of the COVID-19 pandemic. Moreover, the majority of parents in our study had medium or high socioeconomic levels (72.6%) which may also contribute to a better adjustment and less negative outcomes in theirs and their families' wellbeing. As a matter of fact, various studies have found that those who are more economically disadvantaged are at a higher risk of developing mental health problems during the pandemic (Ares et al., 2021; Russel et al., 2020; Park et al., 2020). Nevertheless, given the small size of the study's sample, and the fact that parents had to articulate with their children to answer the questionnaires, we may also hypothesize that only parents and children who maintained a good enough parent-child relationship responded to our study.

Since our investigation aimed to examine how the COVID-19 pandemic has particularly impacted parents, adolescents, and their relationship, it was divided in three different studies, each one with its specific aims. Therefore, we will discuss their results separately.

### Study 1. The impact of the COVID-19 pandemic on parents and its relationship with Mindful Parenting and Compassion for Children.

Firstly, we aimed to investigate the link between the impact of the pandemic on parents and its relationship with indices of depression, anxiety, and satisfaction with life in their role as a parent. It was hypothesized that a more negative impact of the pandemic on parents' lives would be linked to more depression and anxiety and lower levels of life satisfaction (H1). However, this hypothesis was only partially supported by our results. In fact, only the impact of the pandemic on the parental role was associated with mental health outcomes, with the only moderate association being with satisfaction with life in the role as a parent. The association with anxiety and depression was low. Regarding the impact of the pandemic on parents' overall life, this variable was not significantly associated with depression, anxiety, or satisfaction with life. This means that the impact of the pandemic on the parental role may have a stronger relationship with parents' mental health than the impact on their overall life. This result is consistent with the vast number of studies that have reported how parenthood is significantly linked to parents' mental health and subjective wellbeing (Helbig et al., 2006; Mckenzie & Carter, 2013; Myrskylä & Margolis, 2014; Nomaguchi & Milkie, 2020; Ruppanner et al., 2019; Saxbe et al., 2018; Simon & Caputo, 2019). Despite the moderate association between the impact of the pandemic on the parental role and parents' satisfaction with life in their role as a parent, which has been linked to parents' wellbeing (McKeown et al., 2003), our findings only revealed low associations between the impact of the pandemic on the parental role and psychopathology measures (anxiety and depression). This finding can be better understood if we look into the inconsistent research on the links between parenthood and psychopathology. Indeed, a few studies have found parenthood to be associated with more depressive symptoms (Evenson & Simon, 2005; Spence, 2008), while other studies have concluded that parenthood decreases psychological distress (Mckenzie & Carter, 2013) and depressive symptoms (Helbig et al., 2006; Nomaguchi & Milkie, 2003). On the other hand, Koropeckyj-Cox (1998) encountered no significant link between parenthood and depression. Since there is more evidence that parenthood is associated with wellbeing and satisfaction with life, than with psychopathology, our findings complement previous studies, in the sense that they suggest that the impact of the pandemic on the parental role is more strongly associated with parents' life satisfaction than with symptoms of anxiety or depression. Nevertheless, our results show that the more parents are satisfied with life in their role as a parent, the less they report depressive and anxiety symptoms.

When exploring the possible mediators of the relationship between the impact of the pandemic on the parental role and parents' life satisfaction, we found, as hypothesized, that mindful parenting partially mediated this association (H2). It appears that parents who felt a more positive impact of the pandemic were more mindful in the parent-child relationship, which, in turn, was associated with their life satisfaction in their role as a parent. Such result is consistent with research that proposes mindful parenting to be associated with lower levels of parenting stress, more satisfaction, more functional parenting styles and higher quality parent-child relationships (Beer et al., 2013; Bögels et al., 2014; Duncan et al., 2009; Gouveia et al., 2016; Moreira & Canavarro, 2018). That being said, our results add to the literature by implying that mindful parenting may also be of importance during pandemic times, playing an important role in the relationship between the impact of the pandemic on parents and their satisfaction with life as a parent.

Considering that results from the correlations revealed that the positive impact of the pandemic on the parental role was not significantly associated with parents' compassion for their children, we proceeded to exclude compassion for children from the subsequent analysis in this study. Therefore, we did not test the mediation model with compassion for children as the mediator between the impact of the pandemic on the parental role and parents' life satisfaction in their role as a parent (H3).

## Study 2. The impact of the COVID-19 pandemic on adolescents and its relationship with Compassion from Parents.

In the second study, we hypothesized that adolescents reporting a more negative impact of the pandemic would also report more depression and anxiety symptoms and lower levels of soothing emotions inside their family (H4). This hypothesis was partially supported by our findings, since the impact of the pandemic on adolescents' overall life was only associated with depression, although this association was low. On the other hand, the impact of the pandemic on the adolescents' family was only associated with adolescents' perceived soothing emotions in the family (moderate association). Regarding the first finding, the link between the impact of the pandemic of the pandemic on adolescents' overall life and depression is consistent with previous research reporting increases in symptoms of depression in children and teenagers during the course of the COVID-19 pandemic (Magson et al., 2020; Orgilés et al., 2021; O'Sullivan et al., 2021; Zhang et al., 2020). These studies also showed an association between the pandemic and adolescents' anxiety symptoms, which was not observed in our study. However, a study combining twelve longitudinal studies from the United States, the Netherlands and Peru, found that adolescents' depressive symptoms increased from before to during the first six months of the COVID-19 pandemic, whereas anxiety symptoms remained stable (Barendse et al., 2021).

These inconsistencies across studies may be due to the contexts where adolescents live and the differences between the severity of the pandemic in each country, being in terms of number of cases and deaths or confinement measures. In fact, in Portugal, like in most countries, schools were closed, and adolescents had to stay at home for longer periods of time. Despite this, in Portugal, children and adolescents could still go outside for walks during the course of lockdown. The same did not happen in countries like Italy or Spain (e.g., children and adolescents were not allowed to go outside for several weeks during lockdown) (Orgilés et al., 2021). In fact, Orgilés and colleagues (2021) compared anxiety and depressive symptomatology between teenagers from Spain, Italy, and Portugal, and concluded that Portuguese adolescents revealed lower levels of psychopathology than adolescents from the other two countries. The same authors attributed these findings to the fact that the pandemic situation in Portugal was not as severe as in Italy or Spain, and that Portuguese adolescents did not have to follow as restrictive confinement measures as the other two countries. Our results are consistent with this, in the sense that the impact of the pandemic appears not to be associated with adolescents' anxiety symptoms and it appears to be only weakly associated with adolescents' depressive symptoms.

Still in regard to our fourth hypothesis, the impact of the pandemic on the adolescents' family was only associated with adolescents' perceived soothing emotions in the family (H4), meaning that a more positive impact of the pandemic on the family was linked to higher levels of soothing emotions felt by adolescents within their family. This finding is consistent with the literature linking soothing emotions to the affiliative behaviours created within the family. Indeed, Gilbert (2014, 2015a) points out that caring relationships (like the ones established within families) have a quality of soothing because they provide individuals with a sense of safety and contentment, by down regulating threat and reducing the need to search for resources or rewards. If the impact of the COVID-19 pandemic on the family is more positive, which can be true if families take advantage of the additional time together to get to know each other better, create bonding activities to spend the spare time, and support one another through the adversities, it is more likely that, in these families, caring and affiliative behaviours are more present. Since feelings of safeness and soothing are sensitive to cues of warmth and affiliation from others (Gilbert, 2009), adolescents reporting a more positive impact of the pandemic on their family may be able to feel more content and peaceful inside their families, experiencing higher levels of soothing emotions within their families.

Furthermore, and as expected, we found that the relationship between the impact of the pandemic on adolescents' family and the soothing emotions they feel inside their family was totally mediated by the compassion teenagers receive from their parents (H5). This result means that adolescents who reported a more positive impact of the pandemic on the family, also perceived that their parents were more compassionate towards them, which contributed to them experiencing higher levels of soothing emotions in the family. As previously mentioned, a more positive impact of the pandemic on the family may be associated with families spending more time together, strengthening their bonds, and relying on each other for support, which could be translated into an increase in parents' compassion for their children that contributes to adolescents' perception of soothing emotions in the family. As Gilbert proposed (2010, 2014), compassion can be defined as a sensitivity to notice and engage in one's or others' suffering with a motivation and commitment to try to prevent and alleviate it. By spending more time with their children in a time where uncertainty and distress were more prevalent, parents may have had the opportunity to notice when their children were suffering and to discover ways to help them relieve that same suffering. In fact, Ares and colleagues (2021) found that parents reported being more affectionate and protective towards their children during this time, due to the fear generated by the pandemic. These compassionate actions of parents, such as connecting, calming, and soothing, allow for children's distress to be regulated (Gilbert, 2020; Kirby et al, 2019), increasing feelings of soothing and safeness in children, which is consistent with our results, that show that a more positive impact of the pandemic on the family is linked to adolescents' soothing emotions through compassion they receive from their parents.

# Study 3. The impact of the COVID-19 pandemic on parents and its effects on their children: The role of mindful parenting and compassion for children.

In this study, we firstly hypothesized that parents reporting a more negative impact of the pandemic on their parental role would have children reporting lower levels of soothing emotions inside their family and less self-compassion (H6), which was only partially supported by our results. In fact, the impact of the pandemic on the parental role was only associated with adolescents' self-compassion and not significantly associated with adolescents' perceived soothing emotions in the family. This finding may be explained by the way parents deal with the effects of the pandemic on their children. If parents who report a more negative impact of the pandemic on their parental role are still able to provide care, affection, and feelings of safeness towards their children, the soothing emotions adolescents feel inside their family may not be affected by the impact the pandemic has on their parents. Moreover, adolescents' perceived soothing emotions in the family depend on the overall emotional climate of the family, which means that even if one of the parents fell as safe and peaceful, other members of the family could have been able to provide those feelings of safeness and support.

On the other hand, the association between the impact of the pandemic and children's selfcompassion (H6) may be explained by the possibility that parents reporting a more positive impact of the pandemic on their parental role, may have had the opportunity to spend more time with their children and give them more care and support during the adversities, meaning that these parents could have been more compassionate towards their children. If adolescents receive compassion from their parents, it is more likely that they adopt the same coping strategy towards themselves, which could be translated into higher levels of self-compassion, like our findings suggest. Similarly, we hypothesized that parents who were more compassionate towards their children or presented higher levels of mindful parenting would have children with higher levels of self-compassion (H7). This hypothesis was only partially supported by our findings since we found that parents' compassion for their children was significantly associated with adolescents' self-compassion, whereas mindful parenting was not. Regarding the association between parents' compassion for children and adolescents' self-compassion (H7), it is consistent with a study by Neff and McGehee (2010) that found that maternal support, harmonious family functioning and secure attachment predicted higher levels of self-compassion in adolescents. Similarly, other studies have found self-compassion to be associated with maternal attachment and parental warmth (Irons et al., 2006; Pepping et al., 2015). Since compassion for children includes being understanding, supportive and helpful towards children's suffering, these caring actions of parents may then be reflected in the way children deal with their own suffering, which may be manifested in higher levels of children's self-compassion.

A surprising result was the non-significant association between mindful parenting and adolescents' self-compassion (H7). According to previous research, adolescents whose parents present higher levels of mindful parenting tend to be more compassionate towards themselves (Farto, 2018; Moreira et al., 2018). Since mindful parenting comprises a dimension of compassion - parents' compassion for themselves and for the child (Duncan et al., 2009) - it would be expected that adolescents whose parents are more attentive and compassionate towards their needs and distress, would learn this adaptive competency, becoming themselves more self-compassionate (Moreira et al., 2018). However, in our study, mindful parenting and compassion for children only revealed a significant but low association, which indicates that although they are related constructs, they comprise distinct competencies. In fact, mindful parenting involves being aware and present in the parent-child relationship in general, and not specifically when children are suffering or in distress. Furthermore, compassion involves not only an engagement component that comprises noticing and being mindful of one's or others' suffering, but also a component of action, in which one is motivated to alleviate or prevent that suffering and tries to behave in ways consistent with that motivation (Gilbert, 2010, 2014). It appears that the compassionate attitudes that characterize parents' caring behaviours activate children's soothing systems, by allowing for distress to be toned down and regulated (Gilbert, 2020; Kirby et al, 2019), which may facilitate the development of children's self-compassion. This is in line with our results that show a practically moderate, yet not significant, association between the perceived soothing emotions in the family and adolescents' self-compassion. Therefore, it seems that compassion for children is more relevant for the development of adolescents' self-compassion than mindful parenting. Also, the absence of a link between mindful parenting and teenagers' self-compassion may be due to the small sample size in our

study. While it is true that compassion for children showed a significant association with children's self-compassion even in our small sample, mindful parenting did not. Considering that in the first association the underlying process is the same (only the source of compassion is different: from parents to children vs. from children to themselves), it would be easier for that link to emerge as significant even within a small sample like ours. On the other hand, and although mindful parenting comprises a compassion facet, it is a different process than compassion that includes other characteristics and dimensions, making it more difficult for the emergence of a significant association with children's self-compassion within a small sample. The replication of this study with a larger number of parent-child dyads would probably empower the statistical analyses and it could be possible that a significant association between these two variables would be found.

Considering that results from the correlation analyses revealed that the impact of the pandemic on the parental role was not significantly associated with compassion for children or mindful parenting, all our mediation models for this study were excluded, not allowing us to test several of the hypotheses established (H8 – H11). Nonetheless, and considering that with such a small sample this third study had a more exploratory nature, we saw pertinent to investigate if compassion for children or mindful parenting could emerge as significant moderators of the relationship between the impact of the pandemic on the parental role and the soothing emotions adolescents feel inside their family or self-compassion, taking into account that moderation models do not presuppose a significant association between the impact of the pandemic on the parental role was not significantly associated with adolescents' perceived soothing emotions in the family, we proceeded to exclude soothing emotions from the subsequent analyses. Therefore, we did not test the moderation models with soothing emotions as the dependent variable, but solely the models with self-compassion as the dependent variable.

As hypothesized, results revealed that the relationship between the impact of the pandemic on the parental role and adolescents' self-compassion was significantly moderated by parents' compassion for their children (H12). When levels of compassion for children were low, the relationship between the impact of the pandemic on the parental role and children's selfcompassion was significant, meaning that when parents were less compassionate towards their children, there were larger differences in adolescents' self-compassion levels depending on the more negative or positive the impact of the pandemic on the parental role was. On the other hand, when parents reported medium or high levels of compassion for their children, there were no significant differences in children's levels of self-compassion, there being a more negative or a more positive impact of the pandemic on the parental role. This finding goes in line with previous research that links the lack of warmth and care received from parents to lower levels of self-compassion (Kelly & Dupasquier, 2016; Matos et al., 2017; Pepping et al., 2015). Indeed, if children have rejecting or critical caregivers that are uncapable of providing comfort and safeness in times of distress, it may undermine adolescents' ability to try and comfort themselves with compassion, since this way of relating to one's suffering is foreign to them (Kelly & Dupasquier, 2016; Matos et al., 2017). If the impact of the COVID-19 pandemic on parenting is more negative, and if parents are unable to be compassionate towards their children during this difficult time, adolescents will not have the tools to deal with their own suffering in a caring and compassionate manner.

Contrarily to our last hypothesis (H13), our results showed that mindful parenting did not significantly moderate the relationship between the impact of the pandemic on the parental role and adolescents' self-compassion. This means that, in our study, mindful parenting does not strengthen or weaken the link between the impact of the pandemic on the parental role and adolescents' self-compassion. As previously mentioned, mindful parenting has been found to influence the parent-child relationship and children's self-compassion (Duncan et al., 2009; Farto, 2018; Moreira et al., 2018). It seems, though, that in our study the incorporation of more mindful awareness into parenting practices does not contribute to an increase in children's self-compassion. As mentioned previously, compassion for children seems to be more relevant for the development of adolescents' self-compassion than mindful parenting. In this case, only being more or less mindful in the parent-child interactions may be independent of the compassionate actions parents display towards their children, causing mindful parenting not to emerge as a significant moderator between the impact of the pandemic on the parental role and adolescents' self-compassion.

### **Clinical Implications**

Although this study was conducted within a non-clinical sample, which impairs the generalization of findings to clinical populations, mindful parenting and compassion are transversal processes that would likely operate similarly at a clinical and a non-clinical level.

Firstly, and given that our findings highlight the relationship between mindful parenting and parents' wellbeing, our study points out to the importance of developing and implementing

mindful parenting programs (e.g., Bögels & Restifo, 2014; Potharst et al., 2017, 2019) or incorporating mindful parenting approaches to already existing parenting training programs (e.g., Coatsworth, et al., 2015), in order to improve positive parenting practices and parents' mental health. Given that mindful parenting is a transversal mechanism that provides benefits for both general and clinical populations (Bögels et al., 2014; Coatsworth, et al., 2015; Potharst et al., 2017, 2019), these programs could be implemented with community samples for general health promotion or with risk groups of parents who are more vulnerable and who would benefit most from mindful-parenting-based interventions. In fact, and as our results suggest, mindful parenting has been known to help parents better cope with the demands of parenting and the stress that the parental role comprises (Beer et al., 2013; Gouveia et al., 2016), which can be of more relevance during pandemic times, where uncertainty, stress and challenges within the parental role are more prominent (Daks et al., 2020; Fraenkel & Cho, 2020). Therefore, by helping parents to incorporate more mindful awareness into their parenting practices, clinicians could increase parents' ability to attend to theirs and their children's needs, exercise self-regulation, and choose their actions carefully, allowing parents to adapt their parenting practice to the present-moment, which may create a family context where parents feel more satisfied, fulfilled, and where the parent-child relationship is healthier and more enjoyable and beneficial for both parties (Duncan et al., 2009).

The findings of this study also highlight the contribution of parents' compassion for their children on children's psychological competencies, such as self-compassion, and on children's wellbeing through the activation of the affiliative/soothing system. These findings suggest that it would be beneficial to develop interventions focused on the cultivation of compassion from parents to their children. Although compassion-focused interventions and their positive outcomes for mental health and wellbeing are well established and studied (Kirby, 2017), these interventions focus primarily on the development of one's compassionate self in individuals with high levels of shame or self-criticism (e.g., Gilbert, 2010; Neff & Germer, 2013) or on the more generalized cultivation of compassion for all beings, including oneself, loved ones, and others (e.g., Jazaieri et al., 2013). To the best of our knowledge, only one intervention focused specifically on the development of parents' compassion for their children may help children to develop higher levels of self-compassion and may facilitate children's access to the affiliative/soothing system, which has been acknowledged to contribute to mental health

and more effective coping with threats (Gilbert, 2014, 2015a). Therefore, it appears that the development of programs aiming to improve compassionate competencies in parents in regard to their children would promote better parenting practices and a more positive parent-child relationship, where children could feel more supported and cared for in moments of distress and suffering, like the ones that mark the COVID-19 pandemic. In this way, children may be able to feel safe and peaceful in their families and learn adaptive and compassionate ways to cope with their own suffering.

#### Limitations and future studies

There are some limitations to this study that should be noted. Considering that it is a crosssectional study, it is not possible to identify the casual mechanisms between variables or the direction of such mechanisms, being only possible to interpret our results as associations and not as predictions. In order to determine the directions of associations over time, it would be relevant to replicate the present study in a longitudinal design. Additionally, given the small sizes of both samples (parents: N = 73; adolescents: N = 45) and the low number of pairings between parents and adolescents of the same family (N = 25), our findings are somewhat limited in their generalization to the parent and child population, which brings emphasis to the relevance of the replication of this study with a larger and more representative sample of parents and children, in order to assess whether or not similar results can be found. Furthermore, in the parents' sample, only 16.4% of participants were male, which impairs the generalization of our results to fathers. A more homogeneous distribution between genders should be something that future studies aim for when recruiting participants. Furthermore, if both parents were to be included in future studies, it would be relevant to obtain dyadic data from both, due to their co-dependency. Another limitation that can be noted is the use of a community sample, which limits the generalization of the findings to the clinical population. Even though mindful parenting and compassion are transversal processes that may operate at both clinical and non-clinical levels, it would add robustness to our results if the present study were to be replicated in a clinical sample.

The exclusive use of self-report measures is another limitation since this type of measure is easily biased through expectancy and practice effects. Future studies could complement the use of self-report measures with the utilization of structured interviews, for instance. Another limitation that we can note is the fact that we did not investigate the possible role of risk factors that could be involved in magnifying the negative impact of the pandemic and its consequences on the mental health of parents and adolescents. In fact, self-criticism is an example of a vulnerability factor that has been continuously associated with poor mental health outcomes (Amaral et al., 2010; Campos et al., 2014; Gilbert et al., 2006; Werner et al., 2019). During a global pandemic, where uncertainty and mishaps are more frequent, parents and adolescents who are harsher and more critical towards themselves may be more likely to experience a more negative impact of the pandemic on their lives and develop psychopathology. It would be interesting if future studies could explore the presence of risk factors, such as self-criticism, and their implications on the wellbeing and mental health of parents and adolescents during the COVID-19 pandemic.

One more limitation that can be pointed out is the measurement we used to assess the impact of the pandemic on parents and adolescents. This inventory included items regarding the impact of the pandemic on several areas of life, and participants were asked to answer using a 10-point Likert scale ranging from 1 ("extremely negative impact") to 10 ("extremely positive impact"). This split between a "negative" and a "positive" impact in the same scale of response may have generated confusion on the time of its filling, and although we cannot be certain if this was the case for some participants, it could be valuable if future studies used a more objective and straightforward response scale when assessing the impact of the pandemic on the several areas of the participants' lives.

Moreover, and since our sample of parents and children's pairings was so small, we could only do an exploratory analysis of these dyads, resorting to simple correlations and moderation models in order to analyse the relationships between parents' and adolescents' variables. That being said, future studies using a larger sample of parents and their children, could conduct dyadic data analyses with the intention of better understanding the dynamics between psychological variables and outcomes of two individuals who are linked to each other by their parent-child relationship and, thus, are co-dependent.

### Strengths

Despite the aforementioned limitations, this is the first study to show that the impact of the pandemic on parents' life satisfaction in their role as a parent is mediated by mindful parenting, which extends the existing research linking mindful parenting to parents' mental health and adjustment (e.g., Bögels et al., 2014; Chaplin et al., 2021; Gouveia et al., 2016). Furthermore, our study demonstrates that compassion from parents mediates the relationship between the adolescents' perceived impact of the pandemic on the family and adolescents' perceived soothing emotions in the family, and it ascertains the moderating role of compassion for

children on the relationship between the impact of the pandemic on the parental role and adolescents' self-compassion. Similarly to the literature that establishes parental warmth and care as a crucial factor for the development of adaptive psychological competencies and wellbeing of children and adolescents (Kelly & Dupasquier, 2016; Matos et al., 2017; Neff & McGehee 2010; Pepping et al., 2015), our results add to existing research by showing how these processes may play such an important role during particularly challenging times, such as the ones we are experiencing today due to the coronavirus pandemic.

### Conclusion

The COVID-19 pandemic has changed the daily lives of parents and adolescents by imposing the need to practice social distancing and to spend more time at home. However, the adverse consequences of these intricate times can be buffered if families are not economically challenged, and its members remain supportive of each other. The impact of the pandemic on the parental role seems to have a significant relationship with parents' wellbeing, with parents who report a more positive impact of the pandemic on their parental role being able to practice more mindful parenting, which, in turn, increases their life satisfaction in their role as a parent, further supporting the notion of mindful parenting as an important process involved in positive parenting practices and parents' wellbeing. In adolescents, the pandemic seems to have a low impact on their mental health, being only weakly associated with their depressive symptoms. Furthermore, adolescents who report a more positive impact of the pandemic on the family, also perceive that their parents are more compassionate towards them, which contributes to them experiencing higher levels of soothing emotions inside their family. Moreover, compassion for children proved to be a significant moderator of the relationship between the impact of the pandemic on the parental role and children's levels of self-compassion, being that when parents are not capable of being compassionate towards their children, a more negative impact of the pandemic on the parental role will lead to significantly lower levels of children's self-compassion, when compared to when parents are more compassionate towards their children. These findings further support the relevant role of parents' ability to provide care, warmth, and safeness to their children, especially during challenging times as the ones represented by the COVID-19 pandemic.

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