



UNIVERSIDADE D  
COIMBRA

Ana da Luz Aguiar da Câmara Chorão

PARENTING STRESS IN ADOPTIVE  
PARENTS:  
THE ROLE OF MINDFULNESS, PSYCHOLOGICAL  
FLEXIBILITY, AND SELF-COMPASSION

Dissertação no âmbito do Mestrado em Intervenções Cognitivo-Comportamentais em Psicologia Clínica e da Saúde orientada pela Professora Doutora Maria Cristina Cruz de Sousa Portocarrero Canavarro e pela Doutora Raquel Sofia Antunes Pires e apresentada à Faculdade de Psicologia e Ciências da Educação da Universidade de Coimbra.

Junho de 2022

Faculdade de Psicologia e Ciências da Educação da Universidade de  
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*“Recomeça...  
Se puderes  
Sem angústia  
E sem pressa.  
E os passos que deres,  
Nesse caminho duro  
Do futuro  
Dá-os em liberdade.  
Enquanto não alcances  
Não descanses.  
De nenhum fruto queiras só metade.”*

**Miguel Torga**

## Resumo

**Enquadramento:** Embora o stress parental seja apontado como um dos alvos terapêuticos mais importantes e recomendados na intervenção psicológica no período de pós-adoção, o conhecimento acerca dos fatores modificáveis que contribuem para explicar este tipo de outcome entre os pais adotivos continua a ser escasso. **Objetivos:** O presente estudo teve como principais objetivos (a) explorar se, e em que medida, a autocompaixão, a flexibilidade psicológica e o mindfulness dos pais adotivos contribuem para explicar o stress parental e (b) explorar se o papel destes recursos psicológicos na explicação do stress parental pode variar de acordo com a idade da criança, o género dos pais e o tempo decorrido desde a adoção. **Método:** Este estudo, de desenho transversal, incluiu uma amostra de 302 pais portugueses, com pelo menos um filho adotivo entre o 1 e os 17 anos de idade. Os dados foram recolhidos online através do preenchimento de questionários de autorresposta. **Resultados:** Os pais com níveis mais elevados de autocompaixão ( $b = -3.73$ ) e mindfulness ( $b = -0.32$ ) e níveis mais reduzidos de inflexibilidade psicológica ( $b = 0.76$ ) reportaram menores níveis de stress parental; verificou-se que as relações entre estes recursos psicológicos e o stress parental foram significativas ( $p < .01$ ), mesmo após controlar diversas variáveis relacionadas com a criança, com a adoção e outras variáveis relacionadas com os pais, explicando 50% da variância do stress parental ( $F_{(13, 282)} = 22.04, p < .001$ ). Estas associações ocorreram independentemente da idade da criança, do género dos pais, e do tempo decorrido desde a adoção. **Conclusões:** Estes resultados destacam o papel desempenhado pela autocompaixão, flexibilidade psicológica e mindfulness nos níveis de stress parental, e a conseqüente importância de explorar os mecanismos por detrás destas associações. Os resultados permitem-nos também refletir acerca de novas diretrizes que orientem as intervenções psicológicas com pais adotivos – sejam elas preventivas ou remediativas - tendo em conta a aparente mais-valia de incluir a promoção destes recursos psicológicos em tais intervenções.

**Palavras-chave:** autocompaixão, flexibilidade psicológica, mindfulness, pais adotivos, stress parental

## Abstract

**Background:** Although parenting stress has been pointed out as one of the most important and highly acceptable targets for post-adoption psychological intervention, the knowledge regarding the modifiable factors contributing to explaining this type of outcome among adoptive parents remains scarce. **Aims:** The present study aimed to (a) explore whether and to which extent adoptive parents' mindfulness, psychological flexibility, and self-compassion contribute to explaining parenting stress and (b) analyze whether the role of these psychological resources' in explaining parenting stress may vary according to children's age, the parents' gender, and the time passed since the adoptive placement. **Method:** This cross-sectional study included a sample of 302 Portuguese adoptive parents with at least an adoptive child aged between 1 and 17 years old. Data were collected online through self-response questionnaires. **Results:** Parents with higher levels of self-compassion ( $b = -3.73$ ) and mindfulness ( $b = -0.32$ ) and lower levels of psychological inflexibility ( $b = 0.76$ ) reported lower levels of parenting stress; associations between these psychological resources and parenting stress were found to be significant ( $p < .01$ ), even after controlling for a wide range of child-, adoption-, and other parent-related variables, explaining 50% of the variance in parenting stress ( $F_{(13, 282)} = 22.04, p < .001$ ). These associations occurred regardless of children's age, the parents' gender, and the time passed since the adoptive placement. **Conclusions:** Our results highlight the role that self-compassion, psychological flexibility, and mindfulness may play in the prevention and reduction of parenting stress and the consequent importance of studying the mechanisms behind these associations. These results also allow us to reflect on new guidelines for both preventive and remedial interventions with adoptive parents, given the seeming added value of including the promotion of these psychological resources in such interventions.

**Keywords:** adoptive parents, mindfulness, parenting stress, psychological flexibility, self-compassion

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# **Parenting Stress in Adoptive Parents: The Role of Mindfulness, Psychological Flexibility, and Self-Compassion**

## **Theoretical Framework**

While upbringing a child, parents are permanently faced with considerable challenges and responsibilities, which can lead to feelings of frustration and stress (Santos-Nunes et al., 2020). This is particularly concerning due to the known negative impact of parenting stress on parents' mental health (Judge, 2003), the quality of their parenting (Deater-Deckard, 2004; Harris-Waller et al., 2016), and the healthy development of their children (Deater-Deckard, 1998; Harris-Waller et al., 2016; Nunes et al., 2017).

Parenting stress has been defined as the stress resulting from an imbalance occurring when the perceived demands of the parents exceed their perceived resources (Deater-Deckard, 1998; Sánchez-Sandoval & Palacios, 2012). When parenthood occurs under specific challenging circumstances, higher levels of parenting stress are expected (Hayes & Watson, 2013). This is the case of adoptive parenthood. According to previous research, adoptive parents face specific developmental challenges that may leave them vulnerable to adverse outcomes (Pinderhughes & Brodzinsky, 2019).

Parenting stress has been pointed out as one of the most important and highly acceptable targets for post-adoption psychological intervention (Schoemaker et al., 2019). However, the knowledge regarding the modifiable factors that contribute to explaining this type of outcome among adoptive parents remains scarce, and as far as our knowledge, none of the existing studies considered the potential role of parents' psychological resources such as mindfulness, psychological flexibility, and self-compassion on parenting stress among adoptive families. Additional knowledge about this topic is needed to better inform adoptive family adjustment promotion through psychological intervention with adoptive parents.

### **Parenting Stress in Adoptive Families**

Adoptive and biological parents experience similar parental tasks and individual challenges (Pinderhughes & Brodzinsky, 2019). For example, both must adjust to the child's needs and the changes required to integrate them into the family context at each life cycle stage (Bird et al., 2002). However, since the beginning of the transition to parenthood, adoptive

parents need to manage additional stressors, which may include coping with infertility, stigma about adoption, complex bureaucratic processes, and the uncertainty about the child's arrival (Brodzinsky & Huffman, 1988; Goldberg, 2010; Pinderhughes & Brodzinsky, 2019). After that, there is also an increased likelihood of their children having emotional and behavioral difficulties (Goldberg, 2010) due to their history of adversity (Sánchez-Sandoval & Palacios, 2012). As the children grow up, other adoption-related challenges may emerge: introducing and discussing adoption to/with the child and helping them to deal with adoption related-loss; supporting and fulfilling the child's curiosity about their origins; as they reach adolescence and adulthood, upholding a possible decision to search for their biological family (Pinderhughes & Brodzinsky, 2019). Likewise, these parents seem to have less social support than non-adoptive parents (Brodzinsky & Huffman, 1988). These challenging parenting circumstances, denominated by Bird et al. (2002) as "adoptive strains", make adoptive parents more vulnerable to experiencing stress in their parental role than biological parents, which may also harm their children's capacity to recover from previous adversity (Santos-Nunes et al., 2020). Thus, parenting stress is a crucial topic in the adoption research and practice field (Bird et al., 2002; Harris-Waller et al., 2016; Palacios & Sánchez-Sandoval, 2006; Viana & Welsh, 2010; Santos-Nunes et al., 2020).

Adoptive parents usually report higher levels of parenting stress than non-adoptive parents (Harris-Waller et al., 2016). This is particularly concerning because when parents are under high levels of stress, they tend to exhibit inconsistent behavior, devote less quality time to their children, perceive their children as difficult, and have misplaced expectations about how they should behave (Anthony et al., 2005; Crawford & Manassis, 2001; Pinderhughes et al., 2000). Circumstances like this may lead to children's maladjustment expressed by poorer developmental, less social skills, and increasingly challenging behaviors (Anthony et al., 2005; Deater-Deckard, 2004). However, contradictory results were reported in previous research, with several studies showing equivalent or even lower levels of parenting stress among adoptive parents when compared to non-adoptive parents (Judge, 2003; Palacios & Sánchez-Sandoval, 2006). These results suggest a considerable variability of parenting stress among adoptive parents (Santos-Nunes et al., 2020) that must be investigated to allow an accurate intervention planning for those adoptive parents who are more likely to be or to become struggling in the future (Canzi et al., 2019).

According to parenting stress models (e.g., Deater-Deckard, 1998; Wheatley & Wille, 2009), parenting stress can be explained by characteristics related to the external context (e.g., social support), to the child' (e.g., age, gender, history of adversity), to the parent-child interaction (e.g., family dynamic), and, of particular relevance for the scope of this study, to the

parents (e.g., adjustment to the parental role, emotional states, psychological resources; Costa et al., 2020). However, among adoptive parents, the research about the explicative factors of parenting stress is limited, especially those exploring the role of parent-related variables (Costa et al., 2020). Although parent-related variables associated with parental stress may be highly relevant to inform post-adoption services, they have been receiving less attention than child or adoption-related characteristics, for instance (Costa et al., 2020; Palacios et al., 2019). The child's age (Tornello et al., 2011), gender (Palacios & Sánchez-Sandoval, 2006), history of adversity (Sánchez-Sandoval & Palacios, 2012), time spent in institutional care (Judge, 2003), age at placement (Goldberg & Smith, 2014), difficulties/special needs (Rosenthal & Groze, 1990), and behavioral problems (Gagnon-Oosterwaal et al., 2012; Rijk et al., 2006; Tornello et al., 2011) are the most studied child- and adoption-related variables as predictors of parenting stress.

Only recently, a few studies have assessed the explanatory role of adoptive parents-related variables in their own parenting stress (e.g., Canzi et al., 2019; Costa et al., 2020). Parents' age (Orsi, 2014), educational level (Coakley & Berrick, 2007), socioeconomic (Hamilton et al., 2007), and mental health status (e.g., depressive symptoms; Goldberg & Smith, 2014) are the most studied ones. According to these studies, an older age, a higher educational level, a lower socioeconomic status (Coakley & Berrick, 2007; Hamilton et al., 2007; Orsi, 2014), and a previous or current history of depressive symptoms (Goldberg & Smith, 2014) are positively correlated with parenting stress. Despite the undeniable value of this body of research, investigation about the role of adoptive parents' psychological resources – such as mindfulness, psychological flexibility, and self-compassion – on parenting stress may be essential since these are individual resources that can be worked on and modified through psychological intervention. If these resources prove to be explicative of parenting stress levels, they may constitute important targets for intervention with the adoptive parents' population. According to a previous study using a Portuguese sample of adoptive parents, 93% of the participants would consider useful the provision of post-adoption psychological intervention that includes the global promotion of parents' well-being and specific components related to parenting stress. About 76% of them would be available to participate in this type of intervention (Pires et al., 2021).

### **Parents' Psychological Resources and Parenting Stress**

According to Leeming and Hayes (2016), when parents can apply psychological resources such as mindfulness, psychological flexibility, and self-compassion to their daily living, they tend to be psychologically healthier and more capable of promoting healthier family

environments. Mindfulness is a mental state defined by a moment-to-moment and non-judgmental awareness, which lets individuals acknowledge and accept their emotions, thoughts, and bodily sensations (Kabat-Zinn, 2013). Parents who can apply mindfulness to their parenting are more likely to be less reactive and more patient when dealing with challenging child behaviors. Furthermore, by open parents' awareness, mindfulness could help parents notice and genuinely appreciate children's pro-social behaviors (Duncan et al., 2009; Kabat-Zinn & Kabat-Zinn, 1997). Psychological flexibility, in turn, refers to the individuals' capacity to accept aversive emotional experiences while maintaining engagement in value-based behaviors (Hayes et al., 2006). A study conducted by Williams et al. (2012), found that parental psychological flexibility leads to lower levels of parenting stress and greater psychological flexibility in children, which, over time, can result in lower levels of psychopathology and higher levels of pro-social behavior in children. Finally, self-compassion can be defined as "being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, non-judgmental attitude toward one's inadequacies and failures, and recognizing that one's own experience is part of the common human experience" (Neff, 2003, p.87). When applied to parenting, self-compassion may allow reducing parenting stress, namely by realistically readjusting expectations and goals regarding what parents expect of themselves as parents and of their children, while accepting and comforting themselves for the loss of expectations once created. It can also allow parents to be compassionate with themselves and their children in challenging moments by understanding that these moments are part of the human experience, also decreasing rumination about parenting difficulties (Neff & Faso, 2015).

Although the literature about the relationship between these and other related psychological resources and parenting stress in adoptive families is scarce or non-existent, research conducted with community samples (e.g., Moyer & Sandoz, 2015; Potharst et al., 2019), and parents in specific challenging conditions (e.g., children diagnosed with psychological or physical health conditions; Benn et al., 2012; Bohadana et al., 2019; Neece, 2013; Neff & Faso, 2015; Torbet et al., 2019) support the relevance of exploring this theme also among adoptive parents. According to these studies, self-compassion and psychological flexibility are negatively correlated with parenting stress under various challenging parenting circumstances usually present in adoptive parenthood also (e.g., Bohadana et al., 2019; Neff & Faso, 2015; Mohammadi et al., 2020; Torbet et al., 2019). Several reviews and meta-analyses additionally found that mindfulness-based interventions could effectively manage parenting stress under diverse challenging parenting circumstances (Benn et al., 2012; Neece, 2013; Rayan & Ahmad, 2017). Such findings are not surprising since, as noted by Leeming and Hayes (2016),

mindfulness, self-compassion, and psychological flexibility, as a coherent set of crucial skills, have the power to produce positive changes in the families' systems.

Although we are not aware of any related study in the adoption field, in the specific case of adoptive parents, psychological resources such as mindfulness, psychological flexibility, and self-compassion are expected to be particularly beneficial if considering the abovementioned increased challenges that these parents are faced with and the harmful impact that parenting stress can have on adopted children (Santos-Nunes et al., 2020). It is well known that children who encounter traumatic experiences such as emotional and/or physical abuse have difficulties creating a secure attachment with their caregivers (Santos-Nunes et al., 2017); they can experience other severe psychological and emotion-regulation consequences associated with previous adversity (Denham et al., 2000), and these challenging circumstances may predict parenting stress (Harris-Waller et al., 2016; Santos-Nunes et al., 2017). Though, the relationship between children's insecure attachment patterns and parenting stress seems to be a reciprocal process since high levels of parenting stress also seem to lead to an increase in insecure attachment patterns in children or a decrease in secure attachment ones (Santos-Nunes et al., 2020). Mindfulness could help adoptive parents to be less reactive to the child's challenging behaviors related to these circumstances and to truly enjoy the moments of family harmony. Psychological flexibility may also be helpful, allowing parents to stay focused and behave in a way that is in line with their values and goals even though they are facing aversive emotional states. Additionally, self-compassion may enable parents to accept these challenging moments and the emotions that emerge from them as part of the human experience, especially given the increased challenges that emerge from this type of parenting. Self-compassion may also help adoptive parents cope with the usual discrepancy generated between the parenthood and child's idealization and the real experience. In this sense, these psychological resources may be capable of alleviating parenting stress in the adoptive family while giving rise to the dissemination of positive parenting practices (Leeming & Hayes, 2016), which may culminate in greater availability of parents to strengthen the relationship with their children (Santos-Nunes et al., 2020). In addition, as stated by Havighurst (2010), positive parenting may also allow children to learn how to regulate and express their emotions, as this occurs according to the type of parenting experienced.

## **The Potential Moderator Role of Children's Age, Parents' Gender, and Time Passed since the Adoptive Placement**

In addition to the lack of literature on the impact of parents' psychological resources on parenting stress among adoptive families, important gaps arise from the non-specific literature that prevents us from generalizing its findings to the adoption field without further investigation. Three of them are relevant in the scope of our study. First, most of the studies regarding parenting stress have only considered parents of children of specific age groups (e.g., adolescence; Chaplin et al., 2021; Costa et al., 2020; Moyer & Sandoz, 2015; Sánchez-Sandoval & Palacios, 2012; Williams et al., 2012). Although different child's ages pose different parenting challenges and then, can imply specific adjustment mechanisms for parents (Brodzinsky et al., 1998), the option to study samples of parents of children of specific age groups disable the investigation of the role played by developmental specificities in parenting stress.

Parenting stress research has also been primarily focused on mothers, with most of the studies not fully considering the role of fathers (Viana & Welsh, 2010). In fact, there are various individual, biological, and cultural gender differences (Medeiros et al., 2016) that can influence how fathers and mothers exercise their parental role and how they deal with the challenges that emerge from that. For example, according to Medeiros et al. (2016), compared to fathers, mothers tend to be more aware and connected to the present moment in parent-child interactions as well as more sensitive and responsive to their child's needs. As such, including adoptive fathers in the study of these phenomena allows for investigating how the parents' gender influences the relationship between their psychological resources and the levels of parenting stress.

Regarding adoptive families, most parenting stress studies focused on specific phases of the family life cycle (e.g., the first years after adoption; Canzi et al., 2019; Goldberg & Smith, 2014; Manzoni et al., 2015; Viana & Welsh, 2010). Other than the challenges usually associated with the different stages of a child's growth, throughout the life cycle of an adoptive family, there are several additional emerging parenting challenges that may contribute to increased levels of adoptive parents' parenting stress (Brodzinsky et al., 1998). Regarding the different stages of a child's growth, according to Brodzinsky et al. (1998), for example, in the toddlerhood/preschool years, adoptive parents may need to cope with the anxiety and uncertainty related to the start of the telling process while building a family atmosphere appropriate to open communication about adoption. In middle childhood, these parents may need to maintain open communication about adoption while helping the child cope with adoption loss and assimilate the meaning of adoption, as well as validate the child's need to



connect with both adoptive and biological families. Regarding adolescence/young adulthood, in addition to the challenges that accumulate from the previous stages, adoptive parents may need to support adolescents' curiosity about biological family and their plans to search for them while helping to develop realistic expectations regarding that process of searching. In addition, adoptive parents may need to deal with some revisited challenges at different stages of the family life cycle, regardless of how well these challenges were dealt with the first times they arose (e.g., disclosure of their adopted child status, search for the biological family; Santos-Nunes et al., 2020). These processes can be confusing, stressful, and exhausting (Santos-Nunes et al., 2020), causing different levels of difficulties in different phases of the family life cycle and requiring from parents different psychological resources to maintain their well-being.

As such, analyzing whether and to which extent adoptive parents' psychological resources such as mindfulness, psychological flexibility, and self-compassion contribute to explain parenting stress while considering the potential role played in this relationship by the children's age, the parents' gender, and the time passed since the adoptive placement may be an innovative step for adoption research and practice. Beyond benefiting the identification of individuals with a higher probability of being or of becoming struggling more in the future, it could also contribute to a better and more effective psychological intervention with these parents by identifying specific therapeutic targets to work on according to each one of their family statuses regarding child's age, parents' gender and time passed since the adoptive placement. As already noted, this type of intervention, if effective, can produce effects not only on the parents' well-being but also on their children's full development and health – the ultimate goal of child adoption.

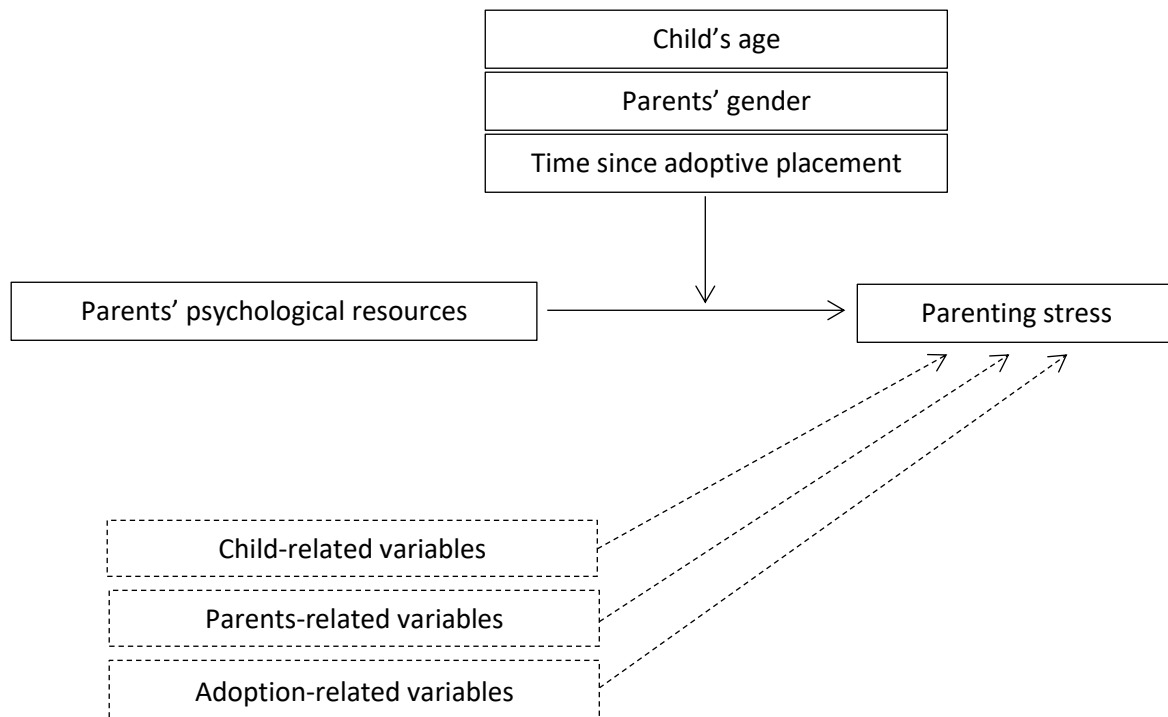
### **The Present Study**

Taking into account the specific challenges posed to adoptive families (Pinderhughes & Brodzinsky, 2019), their consequent vulnerability to parenting stress (Pinderhughes & Brodzinsky, 2019), and how parenting stress may impact the parents themselves (Judge, 2003), the parental role (Deater-Deckard, 2004; Harris-Waller et al., 2016), and the healthy development of their children (Deater-Deckard, 1998; Harris-Waller et al., 2016; Nunes et al., 2017), as well as the relevance to identify adoptive parents psychological resources which may contribute to prevent or reduce parenting stress in order to target them in preventive and intervention efforts, the main aim of this study is to explore whether and in which extent adoptive parents' mindfulness, psychological flexibility, and self-compassion contribute to explaining parenting stress. We hypothesized that even after controlling for child-, adoption-,

and other parent-related variables, adoptive parents with higher levels of mindfulness, psychological flexibility, and self-compassion would experience fewer levels of parenting stress. Additionally, to explore whether the role of these psychological resources' in explaining parenting stress may vary according to children's age, the parents' gender, and the time passed since the adoptive placement, this study also holds the innovation of analyzing the potential moderating role of these variables on the relationship between parents' psychological resources and parenting stress. Given the lack of literature on this topic, we did not elaborate on specific hypotheses.

**Figure 1**

*Conceptual Outline of the Study*



## Method

### Procedures

This cross-sectional study is part of a larger research project entitled “A Mindfulness approach to adoptive parents’ psychological and parenting functioning: Comprehensive analysis and evaluation of a post-adoption psychological intervention”. This project was approved by the Ethics Committee of the Faculty of Psychology and Education Sciences of the University of Coimbra. Data collection for the present study occurred between September 2020 and June 2021. An online self-report assessment protocol developed for the project hosting this study was used through the LimeSurvey platform (a secure online tool provided by the host institution). The eligibility criteria for inclusion in the study were: (1) being 18 years old or older and (2) having at least one adopted child under 18 years old. Parents who had more than one adopted child under 18 years were then instructed to report on the child with whom they felt more difficulties. Participants all over the country were recruited through the Portuguese governmental adoption agencies (i.e., the Institute of Social Security, I.P., the Institute of Social Security of Madeira, IP-RAM, the Institute of Social Security of the Azores, the Santa Casa da Misericórdia de Lisboa). These agencies sent an email to potential participants inviting them to participate in the study. This email contained summarized information about the study’s objectives, the researchers’ contacts, and the informed consent and online questionnaire link. Participation in the study was voluntary and unpaid. Confidentiality was ensured for potential participants. The independence of the observations for the present study among dual-parent adoptive families was ensured by alphanumeric codes provided by the participants and containing first and last names initials, birth dates (day and month), and email indexes of both members of the parental dyad. Data from participants with no dyad correspondence in the database was coded as independent observations and was the only data used in the present study. After sample selection, participants’ data was irreversibly anonymized. Electronic consent was obtained from all participants by selecting the option “Yes, I authorize” after reading the information about the research project, the inclusion criteria, the researcher’s duties, the participant’s rights, and the data protection policy used for data storage.

## Sample

The sample of the present study was a partial sample of the larger research project and consisted of 302 Portuguese adoptive parents (independent observations) with a mean age of 46.62 years ( $SD = 5.21$ ; *range* 34 – 66). The sample was mostly made up of female participants (75.5%), married/cohabiting (69.9%), and with adoptive children only (84.4%). The vast majority had a university or post-graduate degree (70.2%) and were employed (94.0%). Most of the participants lived in an urban environment (70.5%). The monthly household income of most participants was less than 3500€ per month (80.8%), and the number of household members was, on average, 3.26 ( $SD = 0.98$ ; *range* 1-8). Concerning parents' health information, most never had mental health problems (80.5%) or physical health problems (75.8%). As sample collection occurred during COVID-19 pandemic and there is a potential association between COVID-19-related experiences and the study outcome (Adams *et al.*, 2021), COVID-19-related information was also used for characterization and control purposes: 2.3% of the participants were or had been infected with the virus, and 11.3% were identified as at-risk population. The perceived impact of COVID-19 on the participant's life was, on average, 18.33 ( $SD = 2.84$ ; *range* 9 – 28).

At the time of data collection, the children for whom the variables under study were reported were aged between 1 and 17 years ( $M = 9.96$ ;  $SD = 3.79$ ), with the majority being male (54.0%). Regarding child's health information, 2.0% had a physical or mental disability, 6.0% had physical health problems, 18.2% had special educational needs, 35.1% had mild/moderate behavior problems, 2.3% had severe behavior problems, and 6.7% had diagnosed psychological/psychiatric problem. The impact of COVID-19 on child's life, as perceived by their parents, was, on average, 21.85 ( $SD = 3.71$ ; *range* 8 – 34).

Most adoptions were domestic (99.7%) and done as a couple (77.8%). On average, the children had been in foster care for 2.40 years ( $SD = 1.79$ ; *range* 0-11); they were 4.27 years old ( $SD = 3.05$ ; *range* 0.21 - 15.42) at the time of adoptive placement, that occurred, on average, 6.22 years before study assessment ( $SD = 3.51$ ; *range* 0.1-17.2). In most cases, the foster care measure was due to child maltreatment (60.0%), and most of the children were in residential care prior to the adoptive placement (96.2%).

Additional information about the sociodemographic and health characteristics of the parents and children and data related to the adoption process are presented in Table 1.

**Table 1**

*Sociodemographic, Health-, Child-, and Adoption-Related Characteristics of the Sample:  
Descriptive Statistics*

<b>Study Variables</b>	<b>Total Sample</b>
	<i>N</i> = 302
	<i>n</i> (%)
Parents-related	
<b>Age (years); Mean (SD; Range)</b>	46.62 (5.21; 34 – 66)
<b>Sex</b>	
Male	74 (24.5)
Female	228 (75.5)
<b>Educational level</b>	
Elementary/High school	90 (29.8)
University/Postgraduate degree	212 (70.2)
<b>Professional status</b>	
Employed	284 (94.0)
Unemployed or other	18 (6.0)
<b>Marital status</b>	
Single/ Widower	57 (18.9)
Separated/Divorced	34 (11.3)
Married/Cohabiting	211 (69.9)
<b>Region of residence</b>	
Rural environment	89 (29.5)
Urban environment	213 (70.5)
<b>Number of household members; Mean (SD; Range)</b>	3.26 (0.98; 1 – 8)
<b>Household income</b>	
Under 3500 €/per month	244 (80.8)
Above 3500 €/per month	58 (19.2)
<b>Type of family</b>	
Only adopted children	255 (84.4)
Both adopted and biological children	47 (15.6)
<b>Diagnostic of mental health problems</b>	
Never had	243 (80.5)

Had or currently has	59 (19.5)
<b>Diagnostic of physical health problems</b>	
Never had	229 (75.8)
Had or currently has	73 (24.2)
<b>Infected with COVID-19</b>	
Never	295 (97.7)
Currently or in the past	7 (2.3)
<b>Risk population for COVID-19</b>	
No	268 (88.7)
Yes	34 (11.3)
<b>Perceived impact of COVID-19; Mean (SD; Range)<sup>a</sup></b>	18.33 (2.84; 9 – 28)
<hr/>	
Child-related	
<hr/>	
<b>Age; Mean (SD; Range)</b>	9.96 (3.79; 1 – 17)
<b>Sex</b>	
Male	163 (54.0)
Female	139 (46.0)
<b>Health problems</b>	
Physical or mental disability: yes	6 (2.0)
Physical health problems: yes	18 (6.0)
Special educational needs: yes	55 (18.2)
Mild/moderate behavior problems: yes	106 (35.1)
Severe behavior problems: yes	7 (2.3)
Diagnosed psychological/psychiatric problem: yes	23 (7.6)
<b>Parents' perceived impact of COVID-19 on child's life; Mean (SD; Range)<sup>a</sup></b>	21.85 (3.71; 8 – 34)
<hr/>	
Adoption-related	
<hr/>	
<b>Application type</b>	
Single	67 (22.2)
Couple	235 (77.8)
<b>Number of children adopted at the same time; Mean (SD; Range)</b>	1.22 (0.49; 0 – 4)
<b>Child's age at adoptive placement (years); Mean (SD; Range)</b>	4.27 (3.05; 0.21 – 15.42)

<b>Time since child's adoptive placement (years); Mean (SD; Range)</b>	6.22 (3.51; 0.1 – 17.2)
<b>Years in foster care; Mean (SD; Range)</b>	2.40 (1.79; 0 – 11)
<b>Reason for foster care measure</b>	
Child maltreatment	159 (60.0)
Other adverse life experiences	106 (40.0)
<b>Residential hosting</b>	
No/Don't know	11 (3.8)
Yes	278 (96.2)

<sup>a</sup> The perceived impact of Covid-19 was measured through a bipolar adjective scale in which higher and lower values indicated, respectively, a greater positive and a greater negative perceived impact of Covid-19 in the participants' lives.

## Measures

### ***Sociodemographic, Health & Adoption-Related Data***

Sociodemographic, health, and adoption-related data were accessed through a questionnaire developed by the authors of the project into which this study is integrated. The questionnaire was developed based on a comprehensive literature review and revised by key stakeholders in the adoption and parenthood fields. The questionnaire was adjusted to ensure clarity and comprehension after a pilot test using a small sample of adoptive parents.

Concerning sociodemographic information, parents were asked about their age, sex, educational level, professional status, marital status, region of residence (rural vs. urban), number of household members, household income, family type (only adopted children vs. both adoptive and biological children), and child's age and sex. Regarding health-related information, parents answered questions about their history of mental health (*e.g.*, history of mental illness) and physical health (*e.g.*, history of physical health problems) and about their children's history of health problems (*e.g.*, physical or mental disability; diagnosed psychological/psychiatric problems). Related to the adoption process, parents reported the application (couple vs. single) and adoption type (domestic vs. international), number of children adopted at the same time (*e.g.*, one child, two siblings), children's age at adoptive placement, years since the adoptive placement has occurred, number of years the child has been in foster care, reason for foster care measure, and foster care situation before the child was adopted. Since the sample collection took place during the COVID-19 pandemic and taking into account the literature's

reported impact of this reality on parents' emotional adjustment (*e.g.*, Schoemaker *et al.*, 2019; Cusinato *et al.*, 2020), which could interfere with the phenomena under study, parents were also asked about aspects related to this reality (*e.g.*, whether they were or had been infected; whether they had been identified as risk population; the perceived impact of COVID-19 in their lives and in their children's lives).

### **Parenting Stress**

The Portuguese version of the Parenting Stress Index - Short Form (PSI-SF; Abidin, 1995; Portuguese version: Santos, 2008) was used to evaluate parents' parenting stress. The PSI-SF is a self-response instrument that assesses parents' general stress levels when performing their parental role. It consists of 36 items, organized into three subscales: parenting difficulties (to assess the extent to which the parent is experiencing stress in his/her parenting role; *e.g.*, "To be able to respond to my children's needs I end up depriving myself of having my own life"); dysfunctional parent-child interaction (to assess the extent to which the parent feels that his/her child does not meet his/her expectations and that interactions with him/her are not satisfactory; *e.g.*, "When I take care of things for him/her I get the feeling that my effort is not much appreciated"); and difficult child (to assess how easy or difficult the parent perceives the child; *e.g.*, "My child makes more demands on me than most children"). To adapt the questionnaire for the adoptive parent population, items 4 and 5 were presented, respectively, as "Since this child was born / Since I adopted this child, I have never been able to do new and different things" and "Since this child was born / Since I adopted this child, I feel I cannot do the things I like". Items are answered on a 5-point Likert scale (1 = *disagree entirely* to 5 = *agree entirely*). A higher total score indicates higher parenting stress levels. The Portuguese version presents adequate internal consistency levels, ranging from 0.71 (child domain) to 0.82 (parent domain). The total score presents a Cronbach's alpha of 0.89, illustrating good psychometric qualities. In this study, only the total score was used. The Cronbach's alpha in the sample of the present study was 0.95.

### **Parents' Mindfulness**

The Portuguese version of the Mindful Attention and Awareness Scale (MAAS; Brown & Ryan, 2003; Portuguese version: Gregório & Pinto-Gouveia, 2013) was used to assess parents' mindfulness. The MAAS is a self-response measure of mindfulness at a trait-level. It consists of 15 items (*e.g.*, "I find it difficult to stay focused on what is happening in the present moment"; "I seem to function on «autopilot», without much conscious attention to what I am doing") answered on a 6-point Likert scale (1 = *almost always* to 6 = *almost never*). According to



the original authors (Brown & Ryan, 2003), items intend to achieve the presence or absence of attention and awareness in/about what is happening in the present moment. The scale's total score is obtained by adding up the fifteen items, with higher scores indicating a higher level of mindfulness.

The Portuguese version presents good psychometric properties with a Cronbach's alpha coefficient of 0.90, making this instrument reliable to measure mindfulness-trait. The Cronbach's alpha in the sample of the present study was 0.94.

### ***Parents' Psychological Flexibility***

Parents' psychological flexibility was assessed through the Portuguese version of the Acceptance and Action Questionnaire-II (AAQII; Bond *et al.*, 2011; Portuguese version: Pinto-Gouveia *et al.*, 2012). The AAQII is a 7-item self-report measure to assess psychological inflexibility (*e.g.*, "My painful experiences and memories make it difficult for me to live a life that I value"; "My worries get in the way of my success"). Items are answered on a 7-point Likert scale (1 = never true to 7 = always true). The scale's total score is calculated by adding up the seven items. Higher scores are indicators of lower levels of psychological flexibility. The Portuguese version presents a good level of internal consistency, with all the samples in the study of the instrument's validation showing Cronbach's alpha coefficients over 0.89. The Cronbach's alpha in the sample of the present study was 0.93.

### ***Parents' Self-Compassion***

The Portuguese version of the Self-compassion Scale – Short Form (SCS-SF; Raes *et al.*, 2011; Portuguese version: Castilho *et al.*, 2015) was used to assess parents' self-compassion. The SCS – SF is a 12-item self-report measure of self-compassion, organized into 6 subscales: self-kindness (*e.g.*, "When I feel down, I tend to fixate and obsess about everything that is wrong"), self-judgment (*e.g.*, "I am intolerant and not very patient about aspects of my personality that I do not like"), common humanity (*e.g.*, "When I feel inadequate in some way, I try to remember that most people sometimes feel the same way"), isolation (*e.g.*, "When something upsets or saddens me, I try to maintain my emotional balance [control my emotions]"), mindfulness (*e.g.*, "When I fail at something that is important to me, I martyr myself with feelings of inadequacy"), and over-identified (*e.g.*, "I disapprove myself and make judgments about my mistakes and inadequacies"). This instrument uses a 5-point Likert scale (1 = *almost never* to 5 = *almost always*), where items 1, 4, 8, 9, 11, and 12 are reversely scored. It allows calculating the scores for each subscale and the total self-compassion score, where higher

scores indicate a higher level of self-compassion. The Portuguese version has good psychometric properties, with good internal consistency (Cronbach's alpha coefficients between 0.75 and 0.90), test-retest reliability ( $r = .78$ ), and convergent validity, making it a reliable instrument for assessing self-compassion. Only the total score was used in this study. The Cronbach's alpha in the sample of the present was 0.87.

## Data Analysis

The data was analyzed using the *Statistical Package for Social Sciences*, v25 (IBM Corp. in Armonk, New York, USA). Descriptive statistics (means, standard deviations, minimum and maximum values, frequencies, and percentages) were first provided for all sociodemographic, health, and adoption-related co-variables, study variables (i.e., parents' mindfulness, psychological flexibility, and self-compassion), and the study outcome (i.e., parenting stress). To measure the association between sociodemographic, health, adoption-related co-variables, and study variables, Pearson correlations were computed (small effects:  $r \geq .10$ ; medium effects:  $r \geq .30$ ; large effects  $r \geq .50$ ; [Cohen, 1992]). Except for the hypothesized moderators (i.e., children's age, parents' gender, and time passed since adoptive placement) of the association between study variables and parenting stress, only the sociodemographic, health, adoption-related that were significantly associated ( $p < .05$ ) with parenting stress were included as co-variables in the following analyses. A hierarchical linear regression model was then built to assess the independent contribution of each study variable to the study outcome (i.e., parenting stress) while controlling for sociodemographic, health, and adoption-related co-variables: main effects model. Considering the sample size and the number of explicative variables in the model, significant effects corresponding to  $p < .10$  were reported. To analyze the possible moderating effect of children's age, parents' gender, and time passed since adoptive placement on the association between each study variable and parenting stress, the computational tool PROCESS, version 3.5.2, model 1 (Hayes, 2022), was then used: a simple moderation model was run for each of the potential pair of moderators vs. each one of the three psychological resources under study (entered as independent variables), always entering parenting stress as the dependent variable. Thus, nine simple moderation models were created. In each model, sociodemographic and clinical characteristics of parents and children and adoption-related characteristics were entered as co-variables if they were found to be significantly associated with parenting stress in the main effects model ( $p < .10$ ).

## Results

### Associations with Parenting Stress

The descriptive statistics and Pearson's correlations for the variables under study are presented in Table 2. Medium to large associations were found between all the variables under study. Parenting stress was negatively associated with mindfulness, psychological flexibility, and self-compassion. Mindfulness was positively associated with self-compassion and with psychological flexibility. Self-compassion was positively associated with psychological flexibility.

Regarding sociodemographic, health, and adoption-related information, parenting stress was positively associated with parents' educational level ( $r = .12, p = .037$ ), diagnosis of mental health problems ( $r = .17, p = .004$ ), and diagnosis of physical health problems ( $r = .11, p = .004$ ), child's age ( $r = .17, p = .003$ ), severe behavior problems ( $r = .37, p < .001$ ), diagnosed psychological/psychiatric problems ( $r = .32, p < .001$ ), and age at the adoptive placement ( $r = .13, p = .031$ ). In contrast, parenting stress revealed a negative association with the perceived impact of COVID-19 on both the parents' ( $r = -.25, p < .001$ ) and the child's lives ( $r = -.32, p < .001$ ). Except for parents' educational level, diagnosis of mental health problems, and diagnosis of physical health problems, child's actual age and child's age at the adoptive placement - whose associations with parenting stress showed small effects -, all the other significant associations showed medium to large effects.

**Table 2**

*Descriptives Statistics and Pearson's Correlations for the Variables under Study*

Variables	Descriptives <i>Mean (SD; Range)</i>	Correlations			
		1	2	3	4
1. Parenting stress	69.40 (21.65; 37-148)	-			
2. Mindfulness	72.36 (13.61; 15-90)	-.47***	-		
3. Self-compassion	3.64 (0.70; 1.29-5)	-.51***	.58***	-	
4. Psychological inflexibility	16.06 (7.88; 7-47)	.53***	-.50***	-.73***	-

Note. \*\*\*  $p < .001$

### **Explicative Factors for Parenting Stress**

As shown in Table 3, when considered with no other variables in the model, parents' educational level, diagnosis of mental health problems, and perceived impact of Covid-19 on their own life (step 1) significantly explained 10% of the variance in the outcome ( $F_{(4, 291)} = 7.78$ ;  $p < .001$ ). When the child's severe behavior problems, diagnosis of psychological/psychiatric problems, and perceived impact of Covid-19 on the child's life were added to the model (step 2), the perceived impact of Covid-19 on the parents' life became non-significant, and the variables in the model explained 28% of the variance in the outcome ( $F_{(7, 288)} = 16.17$ ,  $p < .001$ ). Adding parents' mindfulness, psychological flexibility, and self-compassion to the model (step 3), parents' educational level and diagnosis of mental health problems became non-significant, and the model explained 49% of the variance in the outcome ( $F_{(10, 285)} = 27.35$ ,  $p < .001$ ). Finally, with the addition of the parents' gender, child's age, and the time since the child's adoptive placement (step 4), all the variables in the model accounted for 50% of the variance in the outcome ( $F_{(13, 282)} = 22.04$ ,  $p < .001$ ). The final model including only the significant contributors ( $p < .10$ ) was significant ( $F_{(7, 294)} = 41.43$ ,  $p < .001$ ), and explained 50% of the variance in parenting stress. Child's older age, presence of severe behavior problems, presence of a diagnosed psychological/psychiatric problem, and a more negative impact of Covid-19 in the child's life, as well as lower levels of parents' mindfulness, psychological flexibility, and self-compassion, significantly explained higher levels of parenting stress. All the hypothesized interactions tested through moderation models did not prove to be significant (data not shown).

**Table 3***Summary of Hierarchical Regression Analyses Explaining Parenting Stress*

Variables	Step 1: parent-related, $\Delta R^2 = .10$ $\Delta F_{(4, 291)} = 7.78$ $R^2 = .10$		Step 2: child-related, $\Delta R^2 = .19$ $\Delta F_{(3, 288)} = 24.81$ $R^2 = .28$		Step 3: psychological resources, $\Delta R^2 = .21$ $\Delta F_{(3, 285)} = 38.64$ $R^2 = .49$		Step 4: hypothesized moderators, $\Delta R^2 = .01$ $\Delta F_{(3, 282)} = 38.64$ $R^2 = .50$		Final Model, $F_{(7, 294)} = 41.43$ $R^2 = .50$	
	<i>b</i> ( $\beta$ )	<i>t</i>	<i>b</i> ( $\beta$ )	<i>t</i>	<i>b</i> ( $\beta$ )	<i>t</i>	<i>b</i> ( $\beta$ )	<i>t</i>	<i>b</i> ( $\beta$ )	<i>t</i>
Constant	94.83	11.45***	100.85	12.28***	113.20	9.09***	104.26	8.03***	110.00	9.59***
Parents' educational level	6.05 (.13)	2.29*	4.52 (.10)	1.87 <sup>§</sup>	2.44 (.05)	1.16	2.76 (.06)	1.30		
Parents' diagnosis of physical health problems	2.85 (.06)	.99	-5.8 (- .01)	-.22	1.69 (.03)	.75	1.65 (.03)	.73		
Parents' diagnosis of mental health problems	7.95 (.15)	2.59*	8.05 (.15)	2.92**	-2.61 (- .05)	-1.03	-2.75 (- .05)	-1.08		
Perceived impact of Covid-19 on parents' life	-1.73 (- .23)	-3.99***	-.50 (- .07)	-1.06	-.19 (- .02)	-.46	-.17 (- .02)	-.43		
Child's severe behavior problems			41.56 (.29)	5.36***	30.44 (- 21)	4.57***	29.77 (.21)	4.50***	31.11 (.21)	4.82***

Child's diagnosis of psychological/psychiatric problem	13.40 (.16)	2.95**	14.62 (.18)	3.79***	13.24 (.16)	3.43**	12.96 (.16)	3.48**
Perceived impact of Covid-19 on child's life	-1.31 (- .22)	-3.60***	-.81 (- .14)	-2.57*	-.79 (- .13)	-2.55*	-.94 (- .16)	-
Parents' mindfulness			-.33 (- .21)	-	-.32 (- .20)	-	-.34 (- .21)	-
Parents' psychological flexibility			.74 (.27)	4.20***	.76 (.28)	4.36***	.70 (.25)	4.12***
Parents' self-compassion			-3.94 (- .13)	-1.93 <sup>§</sup>	-3.73 (- .12)	-1.83 <sup>§</sup>	-3.87 (- .13)	-1.92 <sup>§</sup>
Parents' gender					1.18 (.02)	.53		
Child's age					.89 (.16)	2.83**	.55 (.10)	2.30*
Time since child's adoptive placement (years)					-.49 (- .08)	-1.47		

Note. <sup>§</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

## Discussion

The present study aimed to (1) explore whether and to which extent adoptive parents' mindfulness, psychological flexibility, and self-compassion contribute to explaining parenting stress and (2) analyze whether the role of these psychological resources in explaining parenting stress may vary according to children's age, the parents' gender, and the time passed since adoptive placement. The results support the associations hypothesized for the first objective by demonstrating that higher levels of parents' mindfulness, psychological flexibility, and self-compassion are associated with lower levels of parenting stress. Regarding the second aim, the results revealed that the explicative role of parental psychological resources on parenting stress occurred regardless of children's age, the parents' gender, and the time passed since adoptive placement. These results are innovative and contribute to a better understanding of the relationship between adoptive parents' psychological resources and parenting stress; they add pertinent new information for planning future research and a more effective clinical practice with this population, as it will be discussed below.

First, our results showed that higher levels of parents' mindfulness, psychological flexibility, and self-compassion were associated with lower levels of parenting stress among adoptive parents of our sample. These results corroborate previous studies conducted with parents in other challenging circumstances (Benn et al., 2012; Bohadana et al., 2019; Neece, 2013; Neff & Faso, 2015; Rayan & Ahmad, 2017; Sharif et al., 2020; Torbet et al., 2019), adding to this body of literature evidence about the relevance of these variables in the specific population of adoptive parents. Individuals who experience higher levels of parenting stress tend to react automatically, impulsively, and negatively when interacting with the child, which activates their defense system (Bögels et al., 2014), leading to increased conflict and contributing to even higher levels of parenting stress. Indeed, mindfulness, psychological flexibility, and self-compassion seem to be resources that may promote an approach contrary to this one, which may allow to prevent or to break dysfunctional cycles of child-parent interaction. According to previous literature, when applied to the exercise of parenthood, these psychological resources may reduce the levels of parental emotional reactivity, increase parental practices in line with parents' values, and promote the awareness of suffering as part of the human experience (Duncan et al., 2009; Neff & Faso, 2015). Thus, these skills may, on the one hand, promote family harmony, leading to a lower frequency of stressful situations for parents; on the other hand, the fact that parents have these skills exercised may lead to better

management of challenging situations within the family, thus contributing to lower levels of parenting stress.

It is particularly important to note that the explicative role of adoptive parents' psychological resources on their parenting stress occurred while controlling for a wide range of child-, adoption-, and other parent-related variables. This data adds to previous literature that despite the expected variability of parenting stress levels in function to these co-variables, the explanatory power of the psychological resources under study seems to extend to a wide range of conditions. It even emerged from the hierarchical nature of the regression that some of these child-, adoption-, and other parent-related variables also contribute to explain parenting stress, while others lost their explicative role after including parents' psychological resources in the model.

In particular, the results of our study have shown that, in addition to the parents' psychological resources, the child's age, severe behavior problems, and diagnosis of a psychological or psychiatric problem were positively associated with parenting stress. Conversely, the parents' perceived impact of Covid-19 on the child's life was negatively associated with parenting stress. In other words, in addition to the higher levels of parents' mindfulness, psychological flexibility, and self-compassion, a child's older age, the presence of severe behavior problems and a diagnosed psychological or psychiatric problem, as well as a more negative impact of Covid-19 in the child's life explained higher levels of parenting stress in our sample. Concerning the child's age, the results obtained in this study are congruent with those obtained by Farr et al. (2010), who found that adoptive parents of older children reported higher levels of parenting stress. A possible interpretation for these results is that as they grow up, besides the challenges inherent to greater freedom, autonomy, and independence, adopted children may also become more aware of their adoption context and feel a greater need to know more about their family of origin. This can conduct to the emergence of family conflicts, as well as a sense of insecurity in adoptive parents, leading to increased levels of parenting stress (Brodzinsky et al., 1998). Regarding the presence of child's severe behavior problems, the results of this study are also congruent with previous literature (Canzi et al., 2019; Farr et al., 2010; Judge, 2003; Rijk et al., 2006; Viana & Welsh, 2010). In fact, child's behavior problems have been recognized as the most important predictor of parenting stress (Costa et al., 2020). The relationship between child behavior and parenting stress is a reciprocal process (Mackler et al., 2015), where the existence of more disruptive behaviors in children leads to increased stress levels in the parents, who in turn will react impulsively, which further increases the child's disruptive behaviors.



Similarly, the literature reports the perception of the existence of emotional difficulties in the child as one of the predictors of parenting stress (Goldberg & Smith, 2014; Viana & Welsh, 2010); in this study, results also showed that the existence of a child's diagnosis of a psychological or psychiatric problem relates to higher levels of parenting stress.

Given the temporal context in which the sample for this study was collected, it became necessary to control for the effect of parents' perceived impact of Covid-19 on child's life. Results showed that even after such procedure, the psychological resources under study contributed to explaining the levels of parenting stress. This leads to the conclusion that the explicative role of these psychological resources seems to be pertinent even in more challenging circumstances. In addition, the association between a negative impact of COVID-19 on child's life (as perceived by their parents) and higher levels of parenting stress found in our study corroborate previous research on the impact of COVID-19 on parenting stress levels (Adams et al., 2021; Halayem et al., 2020; Manzoni et al., 2020). This association can be justified by the fact that the pandemic led to changes in children's daily structure and routines, worries about COVID-19, and homeschooling (Adams et al., 2021). These factors appear to have contributed to increased stress levels in children associated with the emergence of more disruptive behaviors, which in turn led to increases in levels of parenting stress.

Additionally, parents' educational level and mental health problems, which were positively associated with parenting stress, became non-significant contributors to parenting stress after considering the role of parents' psychological resources. This result is in line with previous findings, indicating that a higher educational level (Coakley & Berrick, 2007) and the presence of mental health problems in the parents (Goldberg & Smith, 2014) may contribute to higher levels of parenting stress. However, they also add to this previous research that lower levels of mindfulness, psychological flexibility, and self-compassion may be better explicative factors of higher levels of parenting stress than these variables. These results are particularly relevant since these psychological resources are modifiable variables in a therapeutic context, conversely to the parents' educational level. In addition, these results also point to the possibility of using these psychological resources as specific therapeutic targets for preventing and treating high levels of parenting stress among individuals diagnosed with mental health problems. However, future studies must investigate these hypotheses to analyze them properly.

Finally, the non-significant results regarding the potential moderator role of the children's age, the parents' gender, and the time passed since adoptive placement on the association between parents' mindfulness, psychological flexibility, and self-compassion and parenting stress suggest that the explanatory role of parents' psychological resources may extend itself to a wide range of conditions. However, they should be explored in samples of

other natures and sizes in future investigations (e.g., samples including a greater proportion of male parents, dyadic samples, or larger samples of independent observations). Nevertheless, these results highlight the potential usefulness and cross-cutting nature of promoting these three psychological resources with adoptive parents, as they appear to help reduce stress in different personal and family contexts - namely in both women and men, regardless of the age of their adopted children and regardless of how many years ago the adoptive placement occurred.

### **Limitations and Strengths**

Despite this study's innovative and important findings, some limitations must be considered. First, it is relevant to note that its cross-sectional design does not allow us to establish the direction or the causality of the associations between the variables. For example, the experience of high levels of parenting stress may be associated with a lower ability to be mindful and to experience favorable levels of psychological flexibility and self-compassion. Alternatively, these psychological resources may also act as protective factors for parenting stress, not allowing parents to experience such high levels of parenting stress in challenging interactions with their children. Likewise, the child's emotional and behavioral difficulties might result as a consequence of the stress experienced by their parents, as well as a source of more parenting stress (Canzi et al., 2019). Thus, although it is consensual that cross-sectional exploratory studies are the first line of study for unexplored phenomena in a given population, the results of our study must be interpreted with caution, and future longitudinal studies are needed to clarify the direction of the associations between these variables, as well as to explore its explanatory mechanisms.

Second, it is important to mention several study characteristics that may compromise the representativeness of our results as they probably lead to a self-selected sample. Specifically, our sample was collected online (by filling out an online questionnaire). Parents with high levels of comprehension and more accessible internet access may have more frequently filled out the questionnaires than their peers. We tried to overcome this limitation by 1) using a simple language for questionnaires dissemination, 2) providing different types of contacts for clarification of doubts and technical support in accessing the online protocol (e.g., email, phone, mail address), and 3) asking simple procedures to access to the questionnaires (e.g., one-click only, universal browser access to the questionnaires without needing to install any additional software or functionality). In addition, the sample was composed mainly of married/cohabiting people, with a university/post-graduate degree and from an urban environment, which may not

be entirely representative of the entire Portuguese population of adoptive parents (i.e., it may make it difficult to generalize the results to adoptive parents with other sociodemographic characteristics). Finally, due to the aims of the research project in which this study is included and the clear way they were explained to potential participants, adoptive parents who had more interest, close experiences, or needs in the respective topics probably participated more frequently than those who had not. However, we tried to overcome this limitation by explaining to the potential participants that their participation would be meaningful regardless of the parental or child problems felt by their families.

The third limitation is related to the exclusive use of self-answered questionnaires in the protocol of this study, not allowing us to access more detailed information such as those that interviews would allow, or more reliable information as those that the use of multiple sources and methods of data collection would allow. This limitation also led to the fourth related limitation: the inexistence of a measure of social desirability, which makes it impossible to determine whether the results obtained reflect the reality or a more positive image of the participants. This effect may have been amplified by the fact that Portuguese governmental adoption agencies made the invitation for participation in this study. However, to avoid this, the anonymity and confidentiality of the responses were ensured by an explicit indication that the adoption teams would not have access to the answers given in the questionnaires, nor would they be paired in any way with the identity of the participants or with documentary records of the adoption process.

The fifth limitation is related to the fact that our sample was composed of independent observations, mainly of female participants. Although our sample was composed of more men than usual in studies with the adoptive parents' population, the supremacy of female participants and the independent nature of female and male participations may have biased the study results, especially regarding the moderating effect of gender. Future dyadic studies may be relevant to analyze the effect of gender on the proposed associations between these types of variables.

The sixth limitation is related to the collection of the sample's study, which occurred during the COVID-19 pandemic. This context may have led to a bias in the results since it was a period that tended to evoke greater vulnerability and stress, especially concerning parenting (Adams et al., 2021). However, we tried to overcome this limitation by collecting data related to the experience and impact of this pandemic context both on parents' and child's lives.

A seventh limitation is linked to the high number of explanatory factors and interaction terms used in the regression models vs. the sample size, which may have reduced the statistical power of the analyses performed. Although the sample size of this study is adequate, this is a

limitation that should be considered. In the future, it may be pertinent to replicate these analyses in even larger samples. We tried to overcome this limitation by using a less conservative significance level not to exclude a priori potential explicative factors for parenting stress in our results, which can be explored more appropriately in future studies.

Finally, as an eighth and related limitation, it is important to mention that the results concerning the significance of the self-compassion variable were not entirely clear. It would be important to investigate these data in further studies, possibly using a larger sample and investigating its interaction with psychological variables other than those addressed in this study.

Regardless of the described limitations, this study presents several methodological and conceptual assets.

Primarily, the involvement of all the Portuguese governmental adoption agencies in disseminating this study among adoptive parents made it possible to reach a high number of participants in our study. This translated into a large representativeness in terms of different family dynamics (e.g., parents of only adopted children vs. parents of adoptive and biological children; families with a different number of adopted children, dual-parent vs. single-parent families), children's developmental stages (e.g., parents of preschool vs. school-age children; parents of infants vs. children vs. adolescents), and family life cycle stages (e.g., first years post-adoption vs. adoptive placement occurred several years ago), which allowed studying the relationship between the variables in question comprehensively. Additionally, and as previously mentioned, the sample in this study included more men than is usual in parenting studies (e.g., Anthony et al., 2005), namely among adoptive parents (e.g., Harris-Waller et al., 2016), allowing for the analysis of the role played by the gender of the parents as a potential moderator of the relationship between the variables studied. In addition to this potential moderator, the heterogeneity of the sample also made it possible to study the potential moderating effect of the child's age and the years passed since the adoptive placement, which is another innovation and added value of this study.

It is also necessary to highlight that this is the first study with adoptive parents to consider the role of these three psychological resources as potentially modifiable factors through psychological intervention and consequently focused on this research question. Although other studies have focused on understanding the impact of parenting-related characteristics on levels of parenting stress, they usually focus on sociodemographic characteristics, which cannot be modified through therapeutic intervention. Thus, besides being the first to focus on this research question, this study is also the first to understand the role

played by characteristics of adoptive parents that can be worked on and modified in therapy in parenting stress.

### **Implications for Research and Clinical Practice**

The knowledge gained in this study translates into several contributions to research and clinical practice with adoptive parents. Globally, the relationship established between parents' mindfulness, psychological flexibility, self-compassion, and parenting stress demonstrates the importance of including the promotion of these psychological resources in clinical intervention with adoptive parents - an area of intervention that has been increasingly recommended and is under development in several countries -, and taking parents' psychological resources into account in adoption research - a topic that has been poorly studied.

Regarding clinical practice with adoptive parents, the findings of our study are primarily important for remedial clinical intervention (i.e., with adoptive parents who are already dealing with higher levels of parenting stress) as they highlight the importance of including the work of these three psychological resources as therapeutic goals with this population - since these are resources on which clinical intervention can effectively produce effects (Leeming & Hayes, 2016) and which seem to contribute to a better adjustment of these parents. Considering our results about the potential moderators of the association between these psychological resources and parenting stress, the therapeutic work focused on parents' mindfulness, self-compassion, and psychological flexibility seems to be capable of producing effects in reducing parenting stress regardless of the parents' gender, the child's age or the time passed since the adoptive placement, thus evidencing the transversality that this work can assume in this population. However, future research should explore whether decreases in parenting stress are effectively achieved by intervening in the promotion of these psychological resources and the moderators of the therapeutic response to treatment.

The role played by parents' mindfulness, psychological flexibility, and self-compassion on parenting stress in our study also suggests the importance of assessing these psychological resources in individuals who are still candidates for - or are in the course of - the adoption process. This assessment may allow for the identification of individuals who are more likely to struggle more in the future (i.e., individuals who show less evidence of possessing these resources), not for excluding them from the adoption process - since these are psychological resources that can be worked on and easily improved through psychological intervention (Jefferson et al., 2020) - but for including them in preventive interventions focused on cultivating

these resources earlier in the adoption process, in order to avoid high levels of parenting stress in the future.

Regarding the implications for research, our results emphasize the relevance of parents' psychological resources on adoptive parents' adjustment and the pertinence of further studying the influence of mindfulness, self-compassion, psychological flexibility, and other related psychological resources (e.g., self-efficacy; resilience) on adoptive parents' stress, but also on other related outcomes (e.g., psychological adjustment; positive mental health).

Although many studies are still needed to fill several gaps in this field of research, the findings of this study provide preliminary evidence for the benefits of parents' mindfulness, psychological flexibility, and self-compassion as resources potentially capable of preventing or reducing parenting stress and consequently promoting adoptive parents' well-being. The mechanisms through which these psychological resources may act also remain unknown and need to be further explored in the future.

In summary, our findings provide relevant information for adoptive families' adjustment promotion through psychological intervention and lay the groundwork for future research to replicate and extend them. Therefore, the results of this study suggest that research, as well as clinical practice with adoptive parents in the pre- or post-adoption period, should be devoted not only to the characteristics linked to the children, their history, the adoption process, and the sociodemographic and clinical characteristics of the parents but above all to the characteristics whose therapeutic intervention is capable of modifying, such as the psychological resources addressed in this study. Identifying and reducing the levels of parenting stress among adoptive parents is of utmost importance as it may lead to less emotional reactivity and consequently to more positive parenting practices (Bögels et al., 2014), contributing to greater family harmony and healthier development of children. In turn, the innovative results of this study elucidate the importance that mindfulness, self-compassion, and psychological flexibility may have in reducing parenting stress and demonstrate the usefulness of cultivating them with (prospective and current) adoptive parents, namely through their inclusion as target goals of psychological intervention – both preventive and remedial - with this population.

## **Declarations**

### **Statement of Integrity**

I hereby declare having conducted this academic work with integrity. I confirm that I have not used plagiarism or any form of undue use of information or falsification of results along the process leading to its elaboration.

### **Institutional Framework**

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## References

- Abidin, R. R. (1995). *Parenting Stress Index: Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Adams, E. L., Smith, D., Caccavale, L. J., & Bean, M. K. (2021). Parents Are Stressed! Patterns of Parent Stress Across COVID-19. *Frontiers in Psychiatry*, 12. <https://doi.org/10.3389/fpsy.2021.626456>
- Anthony, L. G., Anthony, B. J., Glanville, D. N., Naiman, D. Q., Waanders, C., & Shaffer, S. (2005). The relationships between parenting stress, parenting behaviour and preschoolers' social competence and behaviour problems in the classroom. *Infant and Child Development*, 14(2), 133–154. <https://doi.org/10.1002/icd.385>
- Benn, R., Akiva, T., Arel, S., & Roeser, R. W. (2012). Mindfulness training effects for parents and educators of children with special needs. *Developmental Psychology*, 48(5), 1476–1487. <https://doi.org/10.1037/a0027537>
- Bird, G. W., Peterson, R., & Miller, S. H. (2002). Factors Associated With Distress Among Support-Seeking Adoptive Parents. *Family Relations*, 51(3), 215–220. <https://doi.org/10.1111/j.1741-3729.2002.00215.x>
- Bögels, S. M., Helleman, J., van Deursen, S., Römer, M., & van der Meulen, R. (2014). Mindful parenting in mental health care: Effects on parental and child psychopathology, parental stress, parenting, coparenting, and marital functioning. *Mindfulness*, 5(5), 536–551. <https://doi.org/10.1007/S12671-013-0209-7>
- Bohadana, G., Morrissey, S., & Paynter, J. (2019). Self-compassion: A Novel Predictor of Stress and Quality of Life in Parents of Children with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 49(10), 4039–4052. <https://doi.org/10.1007/s10803-019-04121-x>
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., Waltz, T., & Zettle, R. D. (2011). Preliminary Psychometric Properties of the Acceptance and Action Questionnaire–II: A Revised Measure of Psychological Inflexibility and Experiential Avoidance. *Behavior Therapy*, 42(4), 676–688. <https://doi.org/10.1016/j.beth.2011.03.007>



- Brodzinsky, D. M., & Huffman, L. (1988). Transition to adoptive parenthood. *Marriage & Family Review, 12*(3–4), 267–286. [https://doi.org/10.1300/J002v12n03\\_13](https://doi.org/10.1300/J002v12n03_13)
- Brodzinsky, D., Smith W., D., & Brodzinsky, A. (1998). *Children's Adjustment to Adoption: Developmental and Clinical Issues*. SAGE Publications, Inc.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*(4), 822–848. <https://doi.org/10.1037/0022-3514.84.4.822>
- Canzi, E., Ranieri, S., Barni, D., & Rosnati, R. (2019). Predictors of Parenting Stress During Early Adoptive Parenthood. *Current Psychology, 38*(3), 811–820. <https://doi.org/10.1007/s12144-017-9657-x>
- Castilho, P., Pinto-Gouveia, J., & Duarte, J. (2015). Evaluating the Multifactor Structure of the Long and Short Versions of the Self-Compassion Scale in a Clinical Sample. *Journal of Clinical Psychology, 71*(9), 856–870. <https://doi.org/10.1002/jclp.22187>
- Chaplin, T. M., Turpyn, C. C., Fischer, S., Martelli, A. M., Ross, C. E., Leichtweis, R. N., Miller, A. B., & Sinha, R. (2021). Parenting-Focused Mindfulness Intervention Reduces Stress and Improves Parenting in Highly Stressed Mothers of Adolescents. *Mindfulness, 12*(2), 450–462. <https://doi.org/10.1007/s12671-018-1026-9>
- Coakley, J., & Berrick, J. (2007). Research Review: In a rush to permanency: preventing adoption disruption. *Child & Family Social Work, 13*, 101–112. <https://doi.org/10.1111/j.1365-2206.2006.00468.x>
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Costa, I.-S., Barbosa-Ducharne, M., Palacios, J., & Soares, J. (2020). Predictors of parenting stress in portuguese adolescents' adoptive parents. *Child & Family Social Work, 25*(S1), 178–187. <https://doi.org/https://doi.org/10.1111/cfs.12756>
- Crawford, A. M., & Manassis, K. (2001). Familial Predictors of Treatment Outcome in Childhood Anxiety Disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(10), 1182–1189. <https://doi.org/10.1097/00004583-200110000-00012>

- Deater-Deckard, K. (1998). Parenting stress and child adjustment: Some old hypotheses and new questions. *Clinical Psychology: Science and Practice*, 5(3), 314–332. <https://doi.org/10.1111/j.1468-2850.1998.tb00152.x>
- Deater-Deckard, K. (2004). Parenting stress. In *Parenting stress*. Yale University Press. <https://doi.org/10.12987/yale/9780300103939.001.0001>
- Denham, S., Workman, E., Cole, P., Weissbrod, C., Kendziora, K., & Zahn-Waxler, C. (2000). Prediction of externalizing behavior problems from early to middle childhood: The role of parental socialization and emotion expression. *Development and Psychopathology*, 12, 23–45. <https://doi.org/10.1017/S0954579400001024>
- Duncan, L. G., Coatsworth, J. D., & Greenberg, M. T. (2009). A Model of Mindful Parenting: Implications for Parent–Child Relationships and Prevention Research. *Clinical Child and Family Psychology Review*, 12(3), 255–270. <https://doi.org/10.1007/s10567-009-0046-3>
- Farr, R. H., Forssell, S. L., & Patterson, C. J. (2010). Parenting and Child Development in Adoptive Families: Does Parental Sexual Orientation Matter?. *Applied Developmental Science*, 14(3), 164–178. <https://doi.org/10.1080/10888691.2010.500958>
- Gagnon-Oosterwaal, N., Cossette, L., Smolla, N., Pomerleau, A., Malcuit, G., Chicoine, J.-F., Jéliu, G., Belhumeur, C., & Berthiaume, C. (2012). Pre-Adoption Adversity and Self-Reported Behavior Problems in 7 Year-Old International Adoptees. *Child Psychiatry & Human Development*, 43(4), 648–660. <https://doi.org/10.1007/s10578-011-0279-5>
- Goldberg, A. E. (2010). The Transition to Adoptive Parenthood. In *Handbook of Stressful Transitions Across the Lifespan* (pp. 165–184). Springer New York. [https://doi.org/10.1007/978-1-4419-0748-6\\_9](https://doi.org/10.1007/978-1-4419-0748-6_9)
- Goldberg, A. E., & Smith, J. Z. (2014). Predictors of Parenting Stress in Lesbian, Gay, and Heterosexual Adoptive Parents During Early Parenthood. *Journal of Family Psychology*, 28(2), 125–137. <https://doi.org/10.1037/a0036007>
- Gregório, S., & Pinto-Gouveia, J. (2013). Mindful Attention and Awareness: Relationships with Psychopathology and Emotion Regulation. *The Spanish Journal of Psychology*, 16, E79. <https://doi.org/10.1017/sjp.2013.79>

- Halayem, S., Sayari, N., Cherif, W., Cheour, M., & Damak, R. (2020). Relationship between parenting stress and school closures due to the COVID-19 pandemic. *Psychiatry And Clinical Neurosciences*, 497–498. <https://doi.org/10.1111/pcn.13088>
- Hamilton, L., Cheng, S., & Powell, B. (2007). Adoptive Parents, Adaptive Parents: Evaluating the Importance of Biological Ties for Parental Investment. *American Sociological Review*, 72(1), 95–116. <https://doi.org/10.1177/000312240707200105>
- Harris-Waller, J., Granger, C., & Gurney-Smith, B. (2016a). A comparison of parenting stress and childrens internalising, externalising and attachment-related behaviour difficulties in UK adoptive and non-adoptive families. *Adoption & Fostering*, 40, 340–351. <https://doi.org/10.1177/0308575916667911>
- Havighurst, S., Wilson, K., Harley, A., Prior, M., & Kehoe, C. (2010). Tuning in to Kids: Improving emotion socialization practices in parents of preschool children-findings from a community trial. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 51, 1342–1350. <https://doi.org/10.1111/j.1469-7610.2010.02303.x>
- Hayes, A. F. (2022). *Introduction to Mediation, Moderator and Conditional Process Analysis: A Regression-Based Approach* (3rd ed.). Guilford Press.
- Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 43(3), 629–642. <https://doi.org/10.1007/S10803-012-1604-Y>
- Jefferson, F. A., Shires, A., & McAloon, J. (2020). Parenting Self-compassion: a Systematic Review and Meta-analysis. *Mindfulness*, 11(9), 2067–2088. <https://doi.org/10.1007/s12671-020-01401-x>
- Judge, S. (2003). Determinants of parental stress in families adopting children from Eastern Europe. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 52(3), 241–248. <https://doi.org/10.1111/j.1741-3729.2003.00241.x>
- Kabat-Zinn, J. (2013). *Full Catastrophe Living* (15th anniversary). Delta Trade Paperback/Bantam Dell.

- Kabat-Zinn, M., & Kabat-Zinn, J. (1997). *Everyday Blessings: The Inner Work of Mindful Parenting*. NY: Hyperion.
- Leeming, E., & Hayes, S. (2016). Parents Are People Too: The Importance of Parental Psychological Flexibility. *Clinical Psychology: Science and Practice*, 23. <https://doi.org/10.1111/cpsp.12147>
- Mackler, J. S., Kelleher, R. T., Shanahan, L., Calkins, S. D., Keane, S. P., & O'Brien, M. (2015). Parenting Stress, Parental Reactions, and Externalizing Behavior From Ages 4 to 10. *Journal of Marriage and Family*, 77(2), 388–406. <https://doi.org/10.1111/jomf.12163>
- Manzoni, G. M., Ionio, C., Ornaghi, V., Acri, M., Spinelli, M., Lionetti, F., Pastore, M., & Fasolo, M. (2020). Parents' Stress and Children's Psychological Problems in Families Facing the COVID-19 Outbreak in Italy. *Frontiers in Psychology*, 1, 1713. <https://doi.org/10.3389/fpsyg.2020.01713>
- Manzoni, G. M., Keawphalouk, M. D., Dellagiulia, A., Salcuni, S., Miconi, D., Altoè, G., & Moscardino, U. (2015). *Dyadic adjustment and parenting stress in internationally adoptive mothers and fathers: the mediating role of adult attachment dimensions*. <https://doi.org/10.3389/fpsyg.2015.01279>
- Medeiros, C., Gouveia, M. J., Canavarro, M. C., & Moreira, H. (2016). The Indirect Effect of the Mindful Parenting of Mothers and Fathers on the Child's Perceived Well-Being Through the Child's Attachment to Parents. *Mindfulness*, 7(4), 916–927. <https://doi.org/10.1007/s12671-016-0530-z>
- Moyer, D. N., & Sandoz, E. K. (2015). The Role of Psychological Flexibility in the Relationship Between Parent and Adolescent Distress. *Journal of Child and Family Studies*, 24(5), 1406–1418. <https://doi.org/10.1007/s10826-014-9947-y>
- Neece, C. L. (2013). *Mindfulness-Based Stress Reduction for Parents of Young Children with Developmental Delays: Implications for Parental Mental Health and Child Behavior Problems*. <https://doi.org/10.1111/jar.12064>
- Neff, K. D., & Faso, D. J. (2015). Self-Compassion and Well-Being in Parents of Children with Autism. *Mindfulness*, 6(4), 938–947. <https://doi.org/10.1007/s12671-014-0359-2>

- Nunes, M., Narciso, I., vieira-santos, salomé, & Roberto, M. (2017). Parenting and emotional well-being of adoptive school-aged children: The mediating role of attachment. *Children and Youth Services Review, 81*. <https://doi.org/10.1016/j.chidyouth.2017.08.026>
- Orsi, R. (2014). Predicting re-involvement for children adopted out of a public child welfare system. *Child Abuse & Neglect, 39*. <https://doi.org/10.1016/j.chiabu.2014.10.005>
- Palacios, J., & Sánchez-Sandoval, Y. (2006). Stress in parents of adopted children. *International Journal of Behavioral Development, 30*(6), 481–487. <https://doi.org/10.1177/0165025406071492>
- Pinderhughes, E. E., & Brodzinsky, D. M. (2019). Parenting in Adoptive Families. In *Handbook of Parenting* (pp. 322–367). Routledge. <https://doi.org/10.4324/9780429440847-10>
- Pinderhughes, E. E., Dodge, K. A., Bates, J. E., Pettit, G. S., & Zelli, A. (2000). Discipline responses: Influences of parents' socioeconomic status, ethnicity, beliefs about parenting, stress, and cognitive-emotional processes. *Journal of Family Psychology, 14*(3), 380–400. <https://doi.org/10.1037/0893-3200.14.3.380>
- Pinto-Gouveia, J., Gregório, S., Dinis, A., & Xavier, A. (2012). Experiential Avoidance in Clinical and Non-Clinical Samples: AAQ-II Portuguese Version. *International Journal of Psychology and Psychological Therapy, 12*, 139–156.
- Pires, R., Alves, S., & Canavarro, M. C. (2021). *Post adoption mindful parenting interventions: Acceptability and preferences of Portuguese adoptive parents*. International Conference on Adoption Research.
- Potharst, E. S., Boekhorst, M. G. B. M., Cuijilits, I., van Broekhoven, K. E. M., Jacobs, A., Spek, V., Nyklíček, I., Bögels, S. M., & Pop, V. J. M. (2019). A Randomized Control Trial Evaluating an Online Mindful Parenting Training for Mothers With Elevated Parental Stress. *Frontiers in Psychology, 10*(1550). <https://doi.org/10.3389/fpsyg.2019.01550>
- Raes, F., Pommier, E., Neff, K. D., & van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy, 18*(3), 250–255. <https://doi.org/10.1002/cpp.702>

- Rayan, A., & Ahmad, M. (2017). Mindfulness and Parenting Distress among Parents of Children with Disabilities: A Literature Review. *Perspectives In Psychiatric Care*, 54. <https://doi.org/10.1111/ppc.12217>
- Rijk, C. H. A. M., Hoksbergen, R. A. C., ter Laak, J. J. F., van Dijkum, C., & Robbroeckx, L. H. M. (2006). Parents Who Adopt Deprived Children Have a Difficult Task. *Adoption Quarterly*, 9(2–3), 37–61. [https://doi.org/10.1300/J145v09n02\\_03](https://doi.org/10.1300/J145v09n02_03)
- Rosenthal, J. A., & Groze, V. (1990). Special-Needs Adoption: A Study of Intact Families. *Social Service Review*, 64(3), 475–505. <https://doi.org/10.1086/603782>
- Sánchez-Sandoval, Y., & Palacios, J. (2012). Stress in adoptive parents of adolescents. *Children and Youth Services Review*, 34(7), 1283–1289. <https://doi.org/10.1016/j.chilyouth.2012.03.002>
- Santos, S. V. (2008). *Forma reduzida do Parenting Stress Index (PSI): Estudo preliminar*. XIII Conferência Internacional Avaliação Formas e Contextos, Braga.
- Santos-Nunes, M., Narciso, I., & Vieira-Santos, S. (2020). Parenting Stress In Adoptive Families. In G. M. Wrobel, E. Helder, & E. Marr (Eds.), *The Routledge Handbook Of Adoption* (1st ed., pp. 407–416). Routledge. <https://doi.org/10.4324/9780429432040>
- Santos-Nunes, M., Narciso, I., Vieira-Santos, S., & Roberto, M. S. (2017). Parenting and emotional well-being of adoptive school-aged children: The mediating role of attachment. *Children and Youth Services Review*, 81, 390–399. <https://doi.org/10.1016/j.chilyouth.2017.08.026>
- Schoemaker, N. K., Wentholt, W. G. M., Goemans, A., Vermeer, H. J., Alink, L. R. A., & Alink, L. (2019). *A meta-analytic review of parenting interventions in foster care and adoption*. <https://doi.org/10.1017/S0954579419000798>
- Sharif Mohammadi, F., Chorami, M., Sharifi, T., & Ghazanfari, A. (2020). Comparing the Effects of Group Training of Mindful Parenting Skills and Psychological Capital on Stress and Psychological Flexibility in Mothers with Blind Girl Students. *International Journal of School Health*, 7(3), 31–38. <https://doi.org/10.30476/INTJSH.2020.86895.1091>

- Torbet, S., Proeve, M., & Roberts, R. M. (2019). Self-Compassion: a Protective Factor for Parents of Children with Autism Spectrum Disorder. *Mindfulness, 10*(12), 2492–2506. <https://doi.org/10.1007/s12671-019-01224-5>
- Tornello, S. L., Farr, R. H., & Patterson, C. J. (2011). Predictors of parenting stress among gay adoptive fathers in the United States. *Journal of Family Psychology, 25*(4), 591–600. <https://doi.org/10.1037/a0024480>
- Viana, A. G., & Welsh, J. A. (2010). Correlates and predictors of parenting stress among internationally adopting mothers: A longitudinal investigation. *International Journal of Behavioral Development, 34*(4), 363–373. <https://doi.org/10.1177/0165025409339403>
- Wheatley, M. K., & Wille, D. E. (2009). Changes in Parents' Stress as Their Children Become Adolescents: A Validation of the Stress Index for Parents of Adolescents. *Journal of Psychological Research, 14*, 121–128.
- Williams, K., Ciarrochi, J., & Heaven, P. (2012). Inflexible Parents, Inflexible Kids: A 6-Year Longitudinal Study of Parenting Style and the Development of Psychological Flexibility in Adolescents. *Journal of Youth and Adolescence, 41*, 1053–1066. <https://doi.org/10.1007/s10964-012-9744-0>