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# Parents' Storm and Stress Beliefs about Adolescence: Relations with Parental Overprotection and Parental Burnout

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RESEARCH

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## ABSTRACT

In society and its mass media, adolescence is typically portrayed as a disruptive and rebellious stage of life ("Storm and Stress"). Previous research suggests that the parental adherence to these negative Storm and Stress beliefs about adolescence are persistent and predict subsequent "Storm and Stress" behaviours among their adolescent children. However, the way these beliefs may impact parenting and the experience of being a parent remains unclear and understudied. This study examined associations between parents' Storm and Stress beliefs about adolescence and parental burnout as well as explored the potential mediating role of parental overprotection in this association. Using an Actor-Partner Interdependence Partial Mediation Model, we examined these associations in 146 mother-father dyads ( $N = 292$  parents) of adolescents. Results indicated that mothers and fathers who adhered more strongly to Storm and Stress beliefs about adolescence were more likely to exhibit higher levels of parental burnout. These associations were partially mediated by parental overprotection for both mothers and fathers. The strength of these pathways were found to be similar for both mothers and fathers and no partner effect was observed. These results suggest that countering negative beliefs about adolescence may be beneficial for the quality of parenting and the experience of being a parent.

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## KEYWORDS:

Adolescence; APIMeM;  
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## INTRODUCTION

The old saying “little children, little problems; big children, big problems” is very popular among parents. In western cultures, when it comes to the period of adolescence, parents often worry about this developmental transition as they anticipate it to be a difficult and challenging period (Buchanan et al., 1990). In a somewhat older nationwide study on parenting in the Netherlands, Rispen, Hermanns and Meeus (1996) documented for example that parents see adolescence as the hardest part of their parenting job and the most challenging period of child-rearing. These negative parental representations are often fuelled, from their inception, by society, in particular via mass media that tend to portray teenagers in an unbalanced negative way (Epstein, 2007; Förnas & Bolin, 1995; Wells, 2004). Empirical evidence supports these negative parental representations to some extent by showing that children may be an important source of stress and sorrow, in addition to being an important source of joy and gratification (Deater-Deckard, 2004; Hansen, 2012; Nelson, et al. 2014). Moreover, when children enter adolescence, parents tend to be confronted with new challenges (e.g., test of limits) and a wide array of new demands (e.g., needs for more independence and autonomy) that are likely to generate additional stress (Smetana, 2011; Smetana & Rote, 2019). When parents are in a state of intense exhaustion and lack the resources to deal with parenting stress, a risk of parental burnout even exists (Mikolajczak & Roskam, 2018; Mikolajczak, et al., 2019).

This combination of new challenges and negative general beliefs about adolescence may impact parenting (Buchanan & Holmbeck, 1998). In that respect, parents who hold more negative beliefs about adolescence may be excessively concerned about their children’s safety (e.g., that they would be under the influence of peers) and health (e.g., that they would engage in risky behaviours) and consequently may be overinvested, over-restrictive, and overprotective, which could negatively impact their own psychological adjustment. In the present study, we argue that parental burnout may be related to parents’ negative views of adolescence (‘Storm and Stress beliefs’) via parental overprotection. More specifically, we aim to test whether parental Storm and Stress beliefs are positively associated with parents’ tendency to engage in overprotective parenting during adolescence, which in turn is expected to relate to more parental burnout. Moreover, to date most studies on parents and parenting has mainly focused on mothers, and even when fathers were included, analyses most often overlook the interdependence and mutual influence between mothers and fathers (Ponnet, et al., 2013). However, family system theory and ecological approaches of parenting and development emphasize

the interconnection between family members (e.g., Cox & Paley, 2003; Bronfenbrenner, 1992), and an increasing number of studies provide evidence for such interdependence between parents and the possibility of carry-over effects between family members (e.g., Brenning, et al, 2017; Peterson et al., 2008). Therefore, we used an Actor Partner Interdependence Model (APIM; Kenny et al. 2006) to investigate the interindividual transmission of the effects of Storm and Stress beliefs on parental overprotection and the effects of parental overprotection on parental burnout from one parent to another. That is, we examined how each parent’s Storm and Stress beliefs cross over and relate to their partner’s parental overprotection and how parental overprotection from each partner may affect the other parent’s level of parental burnout.

## ADOLESCENT STORM AND STRESS

In the popular culture of contemporary western societies, adolescents are often portrayed as rebellious, lazy, reckless, moody, prone to risk behaviours, emotional, peer-oriented, and isolated from parents and adults. The mass media (Wells, 2004) have perpetuated and strengthened this cliché portrayal of adolescence through numerous movies (e.g., teen movie such as “*Ferries Bueler Day off*”, Hugues, 1986; “*Kids*”, Clark, 1995), television shows (e.g., “*Skins*”, Brittain & Elsley, 2007–2013), fictional literature (e.g., “*The Outsiders*”, Hinton, 1967) and even parenting books (e.g., “*Surviving your child’s adolescence*”, Pickhardt, 2013). Although images evoking rebellion and risk-taking behaviours are repeatedly associated with the adolescent period, another familiar and recurring feature of media representations of adolescence is youth vulnerability. Young people are indeed portrayed as potential victims (e.g., of addiction, sexting, cyberbullying, etc.) in an increasingly threatening world (Muncie, 2004), thereby suggesting that young people are in need of guidance but also of protection (Muncie, 2004).

Historically, the negative representation of adolescence appears to be longstanding. In his review article, Arnett (1999, p. 317) cites for example Socrates who characterizes youth as inclined to “contradict their parents” and “tyrannize their teachers”. Many authors, especially clinicians and therapists (e.g., Briggs, 2019; Van Heeswyk, 1997), commonly quote the old shepherd’s thoughts from Shakespeare’s *A Winter’s Tale* (1611/1996 – act 3, scene 3) depicting a stereotypical representation of adolescence, including disrespect for elders and authority, as well as crime and violence. In the 18th century, the Rousseau’s *Émile* (1762/2009) marked a turning point and had a great influence on the representations of adolescence,<sup>1</sup> crystallizing the idea that this developmental period was a turbulent time (Thiercé, 1999; Kett, 1977). In a compelling combination

of Rousseau's philosophy of human nature and Ernst Haeckel's recapitulationism (Green, 2015), Stanley G. Hall (1904), often considered as the father of adolescent psychology, coined the expression "Storm and Stress" (p. 534) (inspired from "Sturm und Drang" Romantic movement) to refer to the mood disruptions, risk behaviours and conflicts with parents associated with the teenage years. Since Stanley Hall (1904), writers and clinicians, especially in the psychoanalytical tradition, has been particularly influential in perpetuating the vision of adolescence as an abnormal period of developmental disturbance (e.g., Blos, 1962; Freud, 1937/1966).

However, since the 1960s and early 1970s, many findings failed to support these initial views of adolescence as a period where Storm and Stress are normative. On the contrary, large-scale studies with community samples indicated that for many youths, adolescence is rather a period of non-tumultuous and continued development, without major conflicts, generational crises, or normative mistrust and alienation (e.g., Douvan & Adelson, 1966; Hadiwijaya, et al., 2017; Offer & Offer, 1975). Today, scientific studies have clearly evidenced that most adolescents do not go through this so-called «normative turmoil» (Arnett, 1999), and consequently one should be careful not to make adolescence a universally tumultuous period, fundamentally different from other developmental periods (Barriaud & Lehalle, 2007).

Despite the clear rejection of storm and stress notions by research, powerful negative beliefs still pathologizes adolescence to some extent (Hollenstein & Loughheed, 2013; Petersen, 1988). More recently, the interpretations of results of developmental neuroscience on adolescent brain, especially in the popular press and parenting literature (e.g., Jensen, 2015; Kolbert, 2015), have continued to shape the public perception of adolescence as a period necessarily tumultuous (Sercombe, 2014) by representing the adolescent brain as immature, under construction, or making adolescents vulnerable to risk-taking. Thus, existing literature generally suggests that negative beliefs about adolescence are still widely shared in the population, including among parents (Buchanan, et al., 1990; Hines & Paulsen, 2006; Qu et al., 2020).

These negative general parental beliefs about adolescence have been repeatedly shown to impact how parents anticipate, perceive and react to the behavior of their adolescents (e.g., Buchanan, 2003; Buchanan & Hugues, 2009; Holmes et al., 2012; Jacobs, et al., 2005; Silva et al., 2021; Whiteman & Buchanan, 2002). For example, in a rare longitudinal study, negative parental beliefs have been found to predict worse parent-adolescent relationships and teenagers' behavior problems (Jacobs, et al., 2005). Parental beliefs about adolescence were even stronger predictors of the type of behaviors that parents expect from their own teenager than these adolescents' actual behaviors (Jacobs, et al.,

2005). However, to date, the way these negative beliefs may impact parental experience and stress remains unclear and understudied. Very recently, Silva and colleagues (2021) were the first to show that parents' stereotyped beliefs about adolescence (mostly mothers; 97% of the sample) were negatively related to parental well-being, through the lowered quality of parent-adolescent communication. Stereotyped representations of adolescents as needing guidance and protection also suggests that Storm and Stress beliefs could affect parents' psychological adjustment by leading them to be overly invested, restrictive, or protective of their youth during the developmental stage. Indeed, as adolescents face new developmental tasks and seek to become more independent in their lives, parents who are overly concerned may be at risk for becoming involved in their adolescents' lives in ways that can be characterized as parental overprotection (Grolnick, 2003).

## STORM AND STRESS AND PARENTAL OVERPROTECTION

Parental overprotection refers to parents' provision of protection that is excessive, considering the child's developmental level (Holmbeck et al., 2002; Thomasgard et al., 1995; for a review about the concept of parental overprotection, see Venard, et al., 2021). During adolescence, such developmentally inappropriate strategies (e.g., incessantly warning about anything that could happen, interfering in adolescents' friendships, or intruding in their privacy) can threaten the resolution of fundamental developmental tasks such as identity exploration and the development of independence (Brenning, et al., 2017; Segrin, et al., 2015). Recently, several studies consistently showed that parental overprotection is associated with numerous psychosocial difficulties in adolescence and young adulthood, including lower self-esteem and internalizing problems (e.g., Schiffrin et al., 2014, 2019; Van Petegem et al., 2020; Weitkamp & Seiffge-Krenke, 2019). Research not only documented the harmful psychosocial correlates of parental overprotection throughout development, but also yielded insights regarding its determining factors (Segrin, et al. 2013). For example, some research suggested that overprotection may be driven by parental anxiety and that children's shyness and anxiety also tend to elicit more parental overprotection (Coplan, et al, 2009; Nelson, 2010; Segrin, et al. 2013). Despite its contribution to understanding the potential determinants of parental overprotection, this research generally limited its scope to the role of parent- and/or child-related psychological factors. Thus, the role of macro socio-cultural factors, such as negative beliefs about adolescence, in explaining parental overprotection remains poorly documented.

Several authors have suggested that stereotyped portrayals of adolescence have important implications

for how teenagers are treated by parents and teachers (Hines & Paulsen, 2006; Holmbeck, 1996; Grolnick, et al., 1996). While no prior study has specifically examined associations between parental overprotection and parents' Storm and Stress beliefs about adolescence, there is evidence that parents who view teenagers in negative stereotypical terms report more controlling and less autonomy-supportive parenting behaviors (Grolnick, et al., 1996). Analogously, studies on socio-contextual antecedents of controlling parenting suggest that the more parents believe in the threatening nature of the social environment, the more likely they are to adopt controlling parenting practices (Gurland & Grolnick, 2005; Robichaud, et al., 2020). Additionally, in an era increasingly perceived as the age of insecurity characterized by "culture of fear" or "society of anxiety" (Furedi, 2006; Giddens, 1990; Zimmermann, et al., 2017), parents are pressured to master all aspects of childrearing and play an (over) active role in their children's development (Hays, 1996; Kehily, 2010). In such a context, parents' adherence to storm and stress portrayals of adolescence may fuel parental anxiety and contribute to parental overprotection (Bristow, 2014). There are thus reasons to believe that parental Storm and Stress beliefs may be associated with more overprotective parenting.

## PARENTAL OVERPROTECTION AND PARENTAL BURNOUT

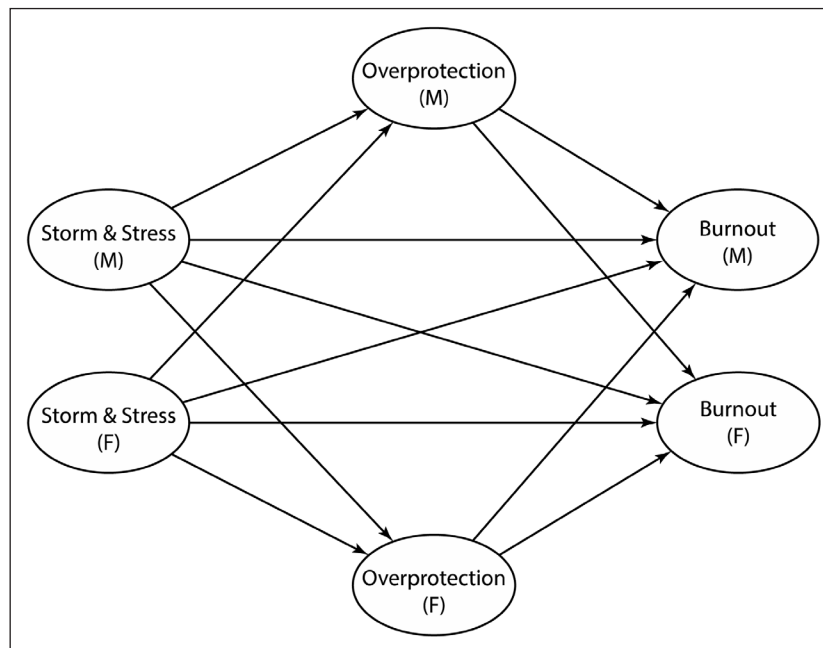
In addition to being linked to negative youth outcomes, parental overprotection is also expected to have important ramifications for parents, potentially setting them at risk for psychosocial difficulties and parental burn-out symptoms (Mikolajczak & Roskam, 2018). Indeed, sociocultural representations about how parents "ought to" raise their youth and protect them from the risks and dangers that characterize the adolescent years, can put immense pressure on them to invest in their children's future and safety, thereby fueling parental overprotection. However, this may also result in feelings of exhaustion and parental burnout for some parents, as such standards may be unattainable (Hubert & Aujoulat, 2018; Mikolajczak & Roskam, 2018; Mikolajczak, et al., 2019). Parental burnout refers to a specific stress-related syndrome resulting from the prolonged expositions to parental stressors which exceeds resources to cope (Hubert & Aujoulat, 2018; Mikolajczak and Roskam, 2018; Mikolajczak, et al., 2019). More specifically, parental burnout is characterized by an intense exhaustion related to the parental role, an emotional disconnection from one's children, and a perceived contrast between the previous and current parental self (Mikolajczak, et al., 2019; Roskam, et al, 2018). Burned-out parents feel tired in the morning and emotionally drained by the thought of facing another day with their child(ren). Parents with these symptoms become less and less involved in their relationships with their child(ren) and in the parental role

(i.e., they function on autopilot). As a result, they no longer feel as efficacious as a parent and lose the satisfaction and joy to be with their child(ren) (Mikolajczak, et al., 2018a; Mikolajczak, et al., 2020). By being specific to the parental role, parental burnout is distinct from job burnout and depressive symptomatology and has specific and important implications on child-rearing (i.e., risk of neglect or violence) (Mikolajczak, et al., 2020). Recently, Hubert and Aujoulat (2018) also suggested that parental burnout may be rooted in a tendency to over-invest the parental role, making parental overprotection a likely risk factor of parental burnout.

## THE CURRENT STUDY

Based on the existing literature, the current study expands on prior research examining the associations, on the one hand between parental beliefs about adolescence and their own tendency to engage in overprotection and experience parental burnout, and on the other hand between parental overprotection and parental burnout. Although existing research on these associations supports the idea that the way parents perceive adolescence may be related to parenting practices, and that overprotective parenting practices may be linked to parental burnout, it is unclear if and how parents' beliefs of adolescence are related to parental burnout. To address this gap, the aim of this study is to test a partial mediational model (see [Figure 1](#)), where parents' Storm and Stress beliefs about adolescence were hypothesized to be associated with parental overprotection and parental burnout, both directly and indirectly via parental overprotection. We will test this partial mediational model simultaneously for mothers and fathers using and Actor Partner Interdependence Model framework (APIM; Kenny et al. 2006) to account for the interdependence that exists between parents. The APIM framework allows to estimate the differential associations between each parent's own scores on the independent variable (i.e., Storm and Stress beliefs) on both their own scores (known as the *actor effect*) and their partner's scores (known as the *partner effect*) on the dependent variable (i.e., parental overprotection and burnout; Campbell & Stanton, 2015; McCabe, 2017). For example, APIM allow to evaluate whether one parent's (e.g., mothers) Storm and Stress beliefs about adolescence relate to the other parent's (e.g., fathers) overprotection, above and beyond the parent's own beliefs about adolescence.

This study is the first, to our knowledge, to use dyadic data to investigate how parents' Storm and Stress beliefs are associated with their partners' parental overprotection and burnout. It is important to consider these dynamics between partners, as past research has shown that the quality of the coparental relationship (i.e., the way parental figures relate to each other in their role



**Figure 1** Conceptual model: The actor-partner interdependence mediation model (APIMeM) conceptualizing parental overprotection as mediator between Storm and Stress beliefs and parental burnout.

Note: M = Mother, F = Father. For clarity reasons, the covariances between variables at the same level are not depicted.

as parents) is an important predictor of overprotective parenting (Van Petegem et al., 2021). Additionally, when we conceptualize the family as a system of mutual influences, parental beliefs and practices are constructed on the basis of experience obtained through interactions with other family members, suggesting that the characteristics (e.g., beliefs, behaviors) of one parent may influence the characteristics and outcomes of the other parent (McGillicuddy-De Lisi, 1980, 1982). While some studies have examined the degree of congruence between mothers' and fathers' beliefs about adolescence (e.g., Jacobs, et al., 2005) and parenting practices (e.g., Duchesne & Ratelle, 2010), only few have investigated partner effects suggesting the possibility that one parent's characteristics shape the other parent's characteristics (Pleck & Hofferth, 2008; Guay, et al., 2018). Based on these theoretical considerations and previous preliminary findings, it seems reasonable to expect reciprocal relations between mothers and fathers (i.e., partner effects) where one parent's Storm and Stress beliefs about adolescence is predictive of her or his partner's parental burnout, via an indirect effect through parental overprotection.

## METHOD

### PROCEDURE AND PARTICIPANTS

In accordance with School and Youth department of the canton de Vaud, our study was conducted from May to November 2019 in the French-speaking part of Switzerland among parents of adolescents from 8 public state schools in their last year of obligatory school (i.e., 9th grade, age 14/15). During a class period, research assistants explained the overall objective of the study to

students and gave each of them an envelope containing two informed consents, two questionnaires and two pre-paid envelopes. Adolescents were invited to deliver the questionnaires to their parents (or to the two persons they considered as most involved in their upbringing). The informed consent described the objectives of the study, the voluntary nature of participation and the anonymous treatment of the data. Parents were invited to complete the questionnaires independently, and to send the questionnaire back to the university within three weeks in separate envelopes. The questionnaires had a unique, randomly generated code, which allowed us to link the data of each parent to their adolescent. Upon reception of completed questionnaires, parents were mailed out 20 Swiss francs (equivalent to 20 US\$) gift certificates to local stores. The study was in compliance with the ethical standards of the Swiss Society of Psychology (SSP) and was approved by the Coordinating committee for educational research of the canton de Vaud.

In total, 467 parents participated in the study, of which 283 mothers (60.6%) and 184 fathers (39.4%), and with a mean age of 47.28 years ( $SD = 5.46$ ). For the present study, we used a subsample of 146 complete mother-father dyads ( $N = 292$  parents; 62.5% of the initial sample). The mean age for mothers and fathers was 45.80 years ( $SD = 4.51$ ) and 49.30 years ( $SD = 6.10$ ), respectively. The majority of parents were Swiss citizens (71.9% and 69.9% of the mothers and fathers respectively) or from neighbouring European Union countries (mainly Portugal, France or Italy). With regard to marital status, the great majority of parents reported being married or cohabitants (i.e., unmarried couples; 79.5%), whereas 20.5% reported being separated or



divorced. Concerning parents' economic status, the median gross household income ranged from CHF 103'000 to CHF 122'000 with 9% below CHF 49'000 and 9.7% over CHF 190'000, which is in line with the median gross household income of families with children in this area of Switzerland (StatVD, 2015). In this sample, 12.0% of the parents reported having one child, 55.8% two children, and 32.2% three children or more. Parents filled out questionnaires with respect to their adolescent in their last year of mandatory school ( $M_{age} = 14.72$ ,  $SD = 0.61$ ; 60.3% girls).

## MEASURES

Participants completed French versions of the questionnaires, which were either available or translated following the recommendations of the International Test Commission (Hambleton, 2001). Items were rated on a Likert-type scale, ranging from 1 (Not at all true) to 5 (Completely true).

### Storm and stress beliefs about adolescence

Parents' negative beliefs about the teen years as being a time of storm and stress were assessed using a measure adapted from the Storm and Stress Scale (SSS) developed initially by Holmbeck and Hill (1988). The measure consists of eight items (e.g., "Adolescents are rebellious", "Adolescents frequently fights with their parents") and the average of the eight items was used, with higher numbers indicating stronger negative beliefs about adolescence. In the original version, Cronbach alpha was 0.75 (Holmbeck & Hill, 1988). In this study, Cronbach's alphas were 0.82 and 0.80 for mothers and fathers, respectively.

### Overprotective parenting

Parental overprotection was assessed using the Multidimensional Overprotective Parenting Scale (MOPS; Kins & Soenens, 2013), which was adapted to a parent-report format (Van Petegem et al., 2020). In line with previous studies (e.g., Brenning et al., 2017), we assessed six components of overprotective parenting (premature problem solving, anxious rearing, privacy invasion, infantilization, emotional hyperactivation, and general overprotection). Each component is measured through five items, yielding a total of 30 items. A sample item reads "I try to solve all of the problems of my son/daughter without him/her having to do anything". Previous research on the original version revealed good convergent validity and reliability (Cronbach alpha was 0.91 on maternal and paternal overprotection) (Brenning, et al., 2017). In the present study, the scale had an excellent reliability as well ( $\alpha = .91$  for mothers and  $\alpha = .90$  for fathers).

### Parental burnout

Parental burnout was assessed using the Parental Burnout Assessment (PBA; Roskam et al., 2018). The scale

consists of 23 items divided in four subscales: Exhaustion in parental role (9 items; e.g., "I feel completely run down by my role as a parent") Contrast parental self (6 items; e.g., "I don't think I'm the good father/mother that I used to be to my child[ren]") Feelings of being fed up (5 items; e.g., "I can't stand my role as father/mother anymore") and Emotional distancing (3 items; e.g., "I am no longer able to show my child[ren] how much I love them"). A global score was obtained by summing all PBA items, with higher scores indicating greater parental burnout. The original version presented good validity with Cronbach's alpha ranging from 0.77 to 0.94 for the four dimensions (Roskam, et al., 2018). High internal consistency was observed in this study, with Cronbach's alphas of .96 for mothers and fathers.

## DATA ANALYSIS

All statistical analyses were performed in the R environment (R Development Core Team, 2020). Raw data were structured as dyadic data. In other words, the data were organized in a pairwise structure so that each line represented a dyad containing the mothers' and fathers' scores. First, we compared participants with and without complete data using Little's (1988) Missing Completely at Random test (MCAR) indicating that data were missing completely at random,  $\chi^2(10) = 8.77$ ,  $p = .55$ . Then, the preliminary analyses involved descriptive statistics ( $M$ ,  $SD$ ), correlations, and testing differences between mothers and fathers on the variables of interest. The latter was done through a Repeated Measures (RM) MANOVA, with parental gender as a within-subject independent variable, and Storm and Stress beliefs, overprotective parenting, and parental burnout as dependent variables.

To test our partial mediational model, we used the Actor-Partner Interdependence Mediation Model (APIMeM; Ledermann, et al., 2011; Kenny, et al., 2006) with structural equation modelling (SEM) using Full Information Maximum Likelihood estimation (FIML). We evaluated whether mothers' and fathers' Storm and Stress beliefs about adolescence were associated with their own and their partners' scores on overprotective parenting and parental burnout and whether in turn mothers' and fathers' self-reports of overprotective parenting were linked to their own and their partners' parental burnout symptoms. Actor effects thus represent the associations between each parent's own scores on the variables of interest (i.e., intrapersonal effects within one parent), whereas partner effects are the associations between mothers' and fathers' scores on the variables of interest (i.e., interpersonal effects between parents).

After conducting confirmatory factor analyses (CFAs) to check whether the study constructs were satisfactorily measured by the indicators, we created latent variables for both mothers and fathers separately, to account for measurement errors. Due to our sample size and number of parameters being estimated, we formed parcels of

indicators for each latent construct (i.e., Storm and Stress beliefs, overprotective parenting, and parental burnout) using a planned disaggregation strategy (Hall, et al., 1999; Little, et al., 2002). The use of parceling has been associated with numerous advantages, such as, among others, a greater reliability, an improved communality, a remedy of non-normal data and increased model fit (Meade & Kroustalis, 2005). From this measurement model, we performed several successive APIMeM structural equation models and evaluated their respective model fit indices (Peugh, et al., 2013). The following indices were used: the chi-square to *df* ratio ( $\chi^2/df$ ), the comparative fit index (CFI), the root mean square error of approximation (RMSEA) and its associated confidence interval, and the standardized root mean square residual (SRMR). Values are generally regarded as indicative of a good fit when  $\chi^2/df$  is lower than 3.0, CFI greater than 0.95, RMSEA is under 0.06 with lower RMSEA CI and upper RMSEA CI smaller than 0.05 and 0.10, respectively, and SRMR is under 0.08 (Hu & Bentler, 1999). As this study was part of a larger project about parental overprotection, an *a priori* power calculation was not conducted. For the broader project, we assumed that a sample size of 300 parents was sufficiently large for undertaking more complex statistical analyses (e.g., structural equation modelling; Garson, 2009).

## RESULTS

### PRELIMINARY ANALYSES

Means, standard deviations and correlations among the study variables are presented in [Table 1](#). First, Storm and Stress beliefs correlated positively and statistically significantly with parental overprotection and parental burnout both for mothers and fathers. Further, maternal and paternal overprotection correlated significantly positively with respectively maternal and paternal parental burnout. Next, we examined differences between mothers and fathers on the variables of interest. The RM MANOVA, which examined mean-level differences between mothers and fathers, yielded a significant multivariate effect,  $F(1,143) = 6.44$ ,  $p < .05$ . Subsequent univariate analyses indicated that mothers, compared to fathers, reported higher levels of

overprotective parenting ( $F(1,145) = 7.91$ ,  $p < .01$ ) and parental burnout ( $F(1,145) = 5.45$ ,  $p < .05$ ; see [Table 1](#) for descriptive statistics). The difference for Storm and Stress beliefs was not significant,  $F(1,145) = .54$ ,  $p = .46$ .

### PARTIAL MEDIATION MODEL

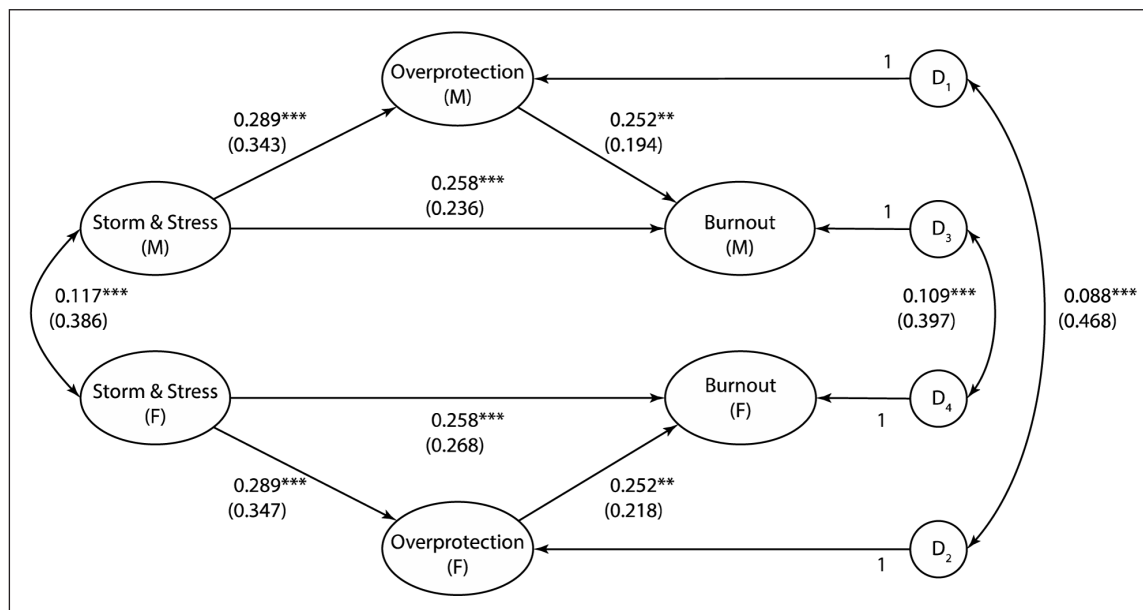
Prior to testing the Actor-Partner Interdependence Mediation Model (APIMeM), we verified the measurement model. We created two parcels for Storm and Stress beliefs and three parcels for parental overprotection and parental burnout. The measurement model yielded an excellent fit ( $\chi^2(89) = 139.15$ , CFI = .976, RMSEA = .062 [90% CI: .041–.081] and SRMR = .036), with factor loadings ranging from 0.45 to 0.64,  $p < .001$ . Next, we performed APIMeM analysis to test our partial mediational model. After estimation of the initial conceptual model (see [Figure 1](#)), we constrained the non-significant paths to zero, one by one, using higher  $p$  values of the variables as the criteria for removal. Moderation by gender was then tested by comparing models in which the corresponding paths were constrained to be the same versus freely estimated across fathers and mothers. At each step, we checked that we had not significantly reduced the model fit using the delta chi-square test. This process resulted in the final parsimonious APIMeM model (see [Figure 2](#)) in which all paths were constrained to be equal between mothers and fathers. This final model showed excellent fit to the observed data ( $\chi^2(100) = 149.27$ , CFI = .977, RMSEA = .058 [90% CI: .037–.077] and SRMR = .054) and did not differ significantly from the initial model ( $\Delta\chi^2(9) = 6.08$ ,  $p = .73$ ). As shown in [Figure 2](#), only actor effects were statistically significant. For both mothers and fathers, there was an actor effect from Storm and Stress beliefs about adolescence to parental overprotection, and in turn from parental overprotection to parental burnout, suggesting that Storm and Stress beliefs about adolescence could be related to parental burnout in part via parental overprotection (i.e., potential mediation). Also, as displayed in [Figure 2](#), significant medium direct actor effects emerged between mother's and fathers' Storm and Stress beliefs about adolescence and their respective parental burnout symptoms, suggesting that parental overprotection does not fully mediate these associations. For both mothers and fathers, more

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.
1. Storm and stress perception M	3.14	.60	–					
2. Storm and stress perception F	3.09	.58	.33**	–				
3. Overprotective parenting M	2.27	.53	.33**	.21*	–			
4. Overprotective parenting F	2.15	.48	.19*	.32**	.47**	–		
5. Parental burnout M	1.54	.60	.33**	.14	.28**	.01	–	
6. Parental burnout F	1.42	.51	.15	.31**	.16	.25**	.37**	–

**Table 1** Means, Standard Deviations, and Correlations among study variables.

Note: M = Mother, F = Father, \*  $p < .05$ , \*\*  $p < .01$ .





**Figure 2** Final APIMeM model with unstandardized parameters (and standardized parameters) depicting the associations between mothers' and fathers' Storm and Stress perception of adolescence and their Parental Burnout via Parental Overprotection (N = 146 dyads of parents).

Note: M = Mother, F = Father. To reduce complexity, nonsignificant paths are not displayed. Paths that were not significantly moderated by gender were constrained to be equal between mothers and fathers. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

beliefs about adolescence as a Storm and Stress period were associated with higher levels of their own parental burnout. These indirect actor effects, constrained to equality for both mothers and fathers, were statistically significant ( $B = .073$ ,  $\beta = .067$ ,  $p < .01$ ).

## DISCUSSION

In this study, we examined within a dyadic framework the links between Storm and Stress beliefs about adolescence and parental burnout, while also investigating the potential mediating role of parental overprotection. As such, this research represents the first effort to investigate how Storm and Stress beliefs of mothers and fathers are associated with their own overprotective parenting and parental burnout symptoms, as well as their partner's overprotection and burnout symptoms. Using an APIM framework, we tested the actor and partner direct effects of Storm and Stress beliefs on parental burnout, as well as their indirect effects via parental overprotection. Results provided evidence only for actor-oriented patterns with no evidence of gender differences. More specifically, we found evidence for direct actor effects of Storm and Stress beliefs about adolescence on parental burnout for both mothers and fathers, whereas no partner effects were found between Storm and Stress beliefs and parental burnout. In addition, there was evidence for indirect actor effects of Storm and Stress beliefs about adolescence on parental burnout through parental overprotection for both mothers and fathers. Again, no indirect partner effects were found.

These findings are consistent with a partial mediational model and the idea that adherence to Storm and Stress

beliefs about adolescence may lead parents to adopt overprotective practices, which in turn put them at risk of parental burnout (Bristow, 2014; Mikolajczak & Roskam, 2018). These results are, on the one hand, in line with previous findings indicating a link between parents' stereotyped representations of adolescence and parenting practices (Grolnick, et al., 1996; Hines & Paulsen, 2006) or the quality of parent-adolescent relationships (Holmes, et al., 2012; Jacobs, et al., 2005) and, on the other hand, with the hypothesis that parental burnout may originate in a tendency to overinvest in parenting and to be too committed as a parent (Hubert and Aujoulat, 2018). Yet, as the observed direct effects suggest, mothers and fathers who adhere more strongly to Storm and Stress beliefs about adolescence are also more likely to exhibit higher levels of parental burnout regardless of their tendency toward overprotection. Other mediators could thus be investigated to further our understanding of the linkage between Storm and Stress beliefs about adolescence and parental burnout. Potential mediators include for example the quality of parent-adolescent communication (Silva et al., 2021).

Finally, in the present study, contrary to our expectation, no partner effects were observed; that is, mothers' and fathers' Storm and Stress beliefs were unrelated to their partners' parental overprotection and burnout (no partner effect). These results suggest that for each parental figure, it is more their own Storm and Stress beliefs than their partner's beliefs about adolescence that are likely to impact their parental overprotection and burnout. This is somewhat in contradiction with a systemic and ecological conception of the family in which mutual influences between members play an essential role in determining how parental figures engage in parenting, influence one

another and are affected by their partners (McGillicuddy-De Lisi, 1980; Guay, et al., 2018). Yet, partner effects could still be present but these may be too inconsistent across families to yield interpretable main effects. For example, while some parents may react to their partners' Storm and Stress beliefs by also being more overprotective, others may tend to reduce overprotective behaviors, perhaps to compensate for their partners' overprotection. Future research should investigate the variability of partner effects as potential moderators could be at play.

Overall, the results of this study extend previous literature on negative and stereotyped beliefs about adolescence, viewed as a disruptive and rebellious period (Buchanan & Holmbeck, 1998). These beliefs, largely reinforced by society (e.g., via media depictions) have been shown to be widely shared, notably among parents, teachers, and youths themselves (Buchanan & Holmbeck, 1998; Hines & Paulson 2006; Qu et al., 2016), and to impact both youth and parent outcomes. Some authors have shown for example that the more parents and teenagers themselves perceive adolescence in a negative light, the more the latter are at risk for storm and stress as they traverse this developmental period (Buchanan & Hughes, 2009; Qu, et al., 2016). Very recently, Silva and colleagues (2021) have also shown that the less parents adhere to these Storm and Stress beliefs about adolescence, the better their well-being. To our knowledge, our study is the first to specifically examine the link between these Storm and Stress beliefs and parental burnout, and to evaluate a specific type of parenting (overprotection) as an explicative mechanism for this association.

Although family relationships are characterized by continuity from childhood to adolescence, parenting adolescents may be challenging as this developmental period is characterized by numerous and rapid transitions across multiple domains (e.g., friendships, sexuality, identity) that may lead to mild normative family conflicts usually over trivial matters of family life (e.g. leisure time, look and clothing, household chores, etc.; Smetana & Rote, 2019). While stressful for parents, these minor conflicts are suited to renegotiating parents' authority and adolescents' increasing needs for independence, and they are thought to realign the parent-adolescent relationships toward more reciprocity and egalitarianism (Branje, 2018). Additionally, parents live today in an era of "intensive parenting ideology" and "parental over-responsibility" that prescribes how individuals should behave as *good* parents (Hays, 1996; Kehily, 2010; Neyrand, 2014; Lee, et al., 2014). This critical change in the way we look at parenting and its associated increase in both parental pressure and parental engagement (Bornstein, 2002; Faircloth, 2014; Neyrand, 2014) have probably nurtured the phenomenon of parental burnout (Mikolajczak, et al., 2019). In such a pressuring context, parents' adherence to Storm and Stress beliefs about adolescence is an additional risk factor that may

fuel, as our results suggest, parental overprotection and parental burnout. In this regard, results of our study support calls by others (e.g., Qu, et al., 2020) to promote strategies countering such largely inaccurate stereotypical representations of adolescence, in particular among parents, teachers and children in early adolescence. Unfortunately, the academic literature has had very reduced impact so far in overturning the dominant discourse and representation of adolescence as a time of Storm and Stress. Thus, promising school-based counterstereotyping interventions such as those proposed and tested by Qu and colleagues (2020) could be adapted for parents, in addition to being more widely developed and evaluated among adolescents. Helping parents to adopt views of adolescence as a responsible and constructive flourishing time (Dahl, et al., 2018; Qu, et al., 2020; Steinberg, 2014; Zimmermann, et al., 2017) could protect them from the temptation of overprotecting their adolescents as well as from the stress associated with over-involvement.

Notwithstanding several strengths of this study (e.g., dyadic data) and its original contributions, there are several study limitations that could be addressed in future studies. First, data were cross-sectional and consequently we were only able to test within-time associations between variables. We assumed that Storm and Stress beliefs about adolescence influence parental overprotection, which in turn would elicit parental burnout symptoms, but we acknowledge that reciprocal causation or bidirectionality between Storm and Stress beliefs, parental overprotection, and parental burnout cannot be ruled out. However, on the basis of previous studies, it is particularly expected that parental beliefs influence parental practices and overprotection (Hines & Paulsen, 2006; Holmbeck, 1996; Grolnick, et al., 1996). Additionally, from a theoretical point of view, we expected that parental overprotection and overinvestment are particularly precursors to parental burnout (Hubert & Aujoulat, 2018), whereas parental burnout would subsequently yield an increase of neglectful (rather than overprotective) behaviors towards children (Mikolajczak, et al., 2020). Nevertheless, corroboration of our findings produced by longitudinal data is clearly needed and would lend credibility to the findings. Second, based on existing literature (Finn, 2001; Lebert-Charron, et al., 2018; Mikolajczak, et al., 2018b), other mediators, such as parental anxiety, should be considered in future studies as they may have significant mediating effects and further our knowledge of the links between Storm and Stress beliefs and parental burnout. Parental overprotection is also affected by child characteristics (Venard, et al., 2021) and it might be interesting for future research to conduct a more in-depth investigation of the influence of the adolescents' characteristics (e.g., gender, behaviour) using multiple-group SEM with a larger sample. Third, all variables were only measured through parents' self-reports, which may produce

stronger associations among the study's variables within one parent. Besides general concern about the sole reliance upon parents' self-reports, the risk of method bias is of particular importance in an APIM framework where the partner effect is based on measures that have less method variance in common than the measures on which the actor effect is based (Orth, 2013). As highlighted by Orth (2013), when using only self-reported measures, the partner effect may be underestimated; which may have occurred in the present study. Further research should integrate ratings of multiple informants (e.g., partner, adolescent) as a means of enhancing the validity of estimation of actor and partner effects. Fourth, the large majority of participating parents are from intact upper-middle class families. Thus, participating parents in our sample may not be representative of all families with adolescents (OFS, 2017). Finally, we did not take into account a number of factors influencing parental workload (e.g., number of children living in the household) that could have an impact, especially on parental burnout (Roskam, et al., 2021). Further research could include socio-demographic and contextual factors to investigate their potential impact on parental overprotection and burnout.

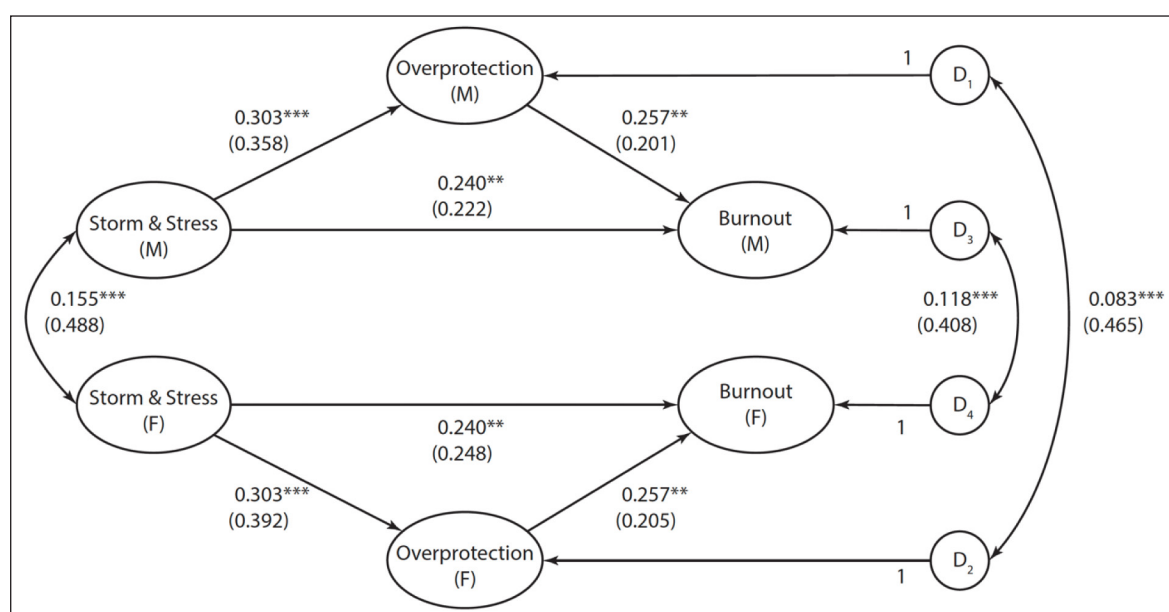
Despite these limitations, the present study offers important insights into the potential negative impact of parents' Storm and Stress beliefs about adolescence on their parenting and their experiences as parents. Unfortunately, today, adolescents still "carry a peculiar burden of representation" (Cohen and Ainley, 2000, p. 89) that can make the parental experience even more demanding and challenging than it already is. It is thus crucial to condemn discrimination against adolescents

and promote a more representative image of adolescence as a developmental period where adolescents become independent and develop a sense of responsibility (Epstein, 2007). Radically changing our representations of adolescence from a disruptive and rebellious period to a responsible one is in turn likely to contribute to reducing parental overprotection and fostering new generations of teenagers who are more creative, resilient, and adaptable to the many unpredictable and unavoidable changes and challenges that life offers.

## APPENDIX – SUPPLEMENTARY ANALYSES REGARDING MARITAL STATUS (MARRIED OR COHABITANT VS. DIVORCED OR SEPARATED PARENTS)

To test the moderating role of marital status, a multigroup APIM was estimated by assessing differences between married/cohabitant and divorced/separated dyads. Moderation was tested by examining the difference in chi-square values between constrained and unconstrained models. The constrained models showed good statistical fit (CFI = .959, RMSEA = .075 [90% CI: .054–.093] and SRMR = .079) and did not statistically significantly differ from the unconstrained model ( $\Delta\chi^2(18) = 24.95, p = .13$ ), suggesting that both groups (married or cohabitant vs. divorced or separated) can be described by the same models.

Additionally, the analyses performed on the restricted married/cohabitants sample gave similar results to



**Appendix Figure 1:** Final APIMeM model with unstandardized parameters (and standardized parameters) depicting the associations between mothers' and fathers' Storm and Stress perception of adolescence and their Parental Burnout via Parental Overprotection (N = 115 dyads of married/cohabitants parents).

Note: M = Mother, F = Father. To reduce complexity, nonsignificant paths are not displayed. Paths that were not significantly moderated by gender were constrained to be equal between mothers and fathers. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

those obtained on the full sample (see Appendix Figure 1 below).

## NOTE

- 1 Interestingly, Rousseau provided the parameters of male adolescence that has been generalized to adolescence.

## DATA ACCESSIBILITY STATEMENT

The raw data that supports the findings of this study are deposited in the SWISSUbase repository at <https://doi.org/10.48573/ca9r-g775>. However, data are under embargo until 31.12.2024 as it is part of an ongoing research project and are available from the corresponding author (GZ), upon reasonable request.

## TRANSPARENCY STATEMENT

We reported how we determined the sample size and the stopping criterion. We reported all experimental conditions and variables. We report all data exclusion criteria and whether these were determined before or during the data analysis. We report all outlier criteria and whether these were determined before or during data analysis.

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## COMPETING INTERESTS

The authors have no competing interests to declare.

## AUTHOR CONTRIBUTIONS

GZ participated in the conception and design of the study, analyzed and interpreted the data, and wrote the manuscript; JPA supervised and performed the statistical


analysis, and helped in the interpretation and writing the manuscript; GM & BM helped in the interpretation, and contributed to the writing of the manuscript; SVP conceived and designed the study, coordinated the project and helped in the writing of the manuscript. All authors have read, edited and approved the final manuscript.


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