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Maternal Emotion Socialization of Positive Emotions and Psychopathological Symptoms in
Adolescent Boys and Girls: The mediator role of Emotion Dysregulation

Dissertação de Mestrado em Psicologia Clínica e da Saúde

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Abstract

Research has shown that mothers seem to play a defining role in the socialization of negative and positive emotions of their teenage children, which impacts their psychological adjustment. However, the majority of the studies have focused on negative emotions, and the ones regarding positive emotions tend to focus in the association between maternal dampening of positive emotions with youth showing internalizing symptoms. Moreover, findings show that emotion dysregulation seems to mediate the association between maternal emotion socialization and youth outcomes, with distinct pathways for boys and girls. In the present study, we aim to deepen our understanding of the association between unsupportive maternal socialization strategies (i.e., punish, neglect and override) of overjoy and the externalizing and internalizing symptoms in adolescents as mediated by emotion dysregulation, for boys and girls. The study was conducted with 418 adolescents ($M_{age} = 14.75$; 57.7% girls), who have filled out questionnaires on maternal emotion socialization, difficulties in emotion regulation and psychological symptoms. Overall, results showed that, for boys, emotion dysregulation mediated the association between the perception of maternal disapproval (i.e., punish)/dismissive (i.e., override) regarding overjoy, but not maternal *neglect*, and externalizing and internalizing symptoms. Unexpectedly, for girls, emotion dysregulation didn't mediated the association between the perception of maternal responses to overjoy and psychological symptoms. Nevertheless, emotion dysregulation was positively associated with psychological symptoms. This study highlighting the negative impact of these parental practices on adolescents' psychological adjustment, for boys. Regarding girls, our results contradict previous findings, which indicates that further analyses on this topic are needed.

Keywords: maternal emotion socialization, positive emotions, emotion dysregulation, psychological symptoms, adolescence

Introduction

Adjustment and social competence are associated with how adolescents learn to adaptively express and manage emotions (Eisenberg, & Morris 2002; Silk, Steinberg, & Morris, 2003). A range of environmental factors is likely to influence emotional expression in youth, including the relationship with caretakers, teachers, peers and society. Still, parents are one of the most influential sources of emotion socialization (Brand, & Klimes-Dougan, 2010). Parental emotion socialization is a multifaceted process that involves parental reactions to their youth's expression of emotion, the way they discuss emotions with their children, and how parents coach emotion regulatory efforts (Eisenberg, Cumberland, & Spinrad, 1998). This process impacts the adolescent's social development and helps them to understand, express, and regulate emotions (Eisenberg et al., 1998). Moreover, parental emotion socialization practices are important not only to promote positive development and adjustment, but also to prevent adolescents' psychopathology (Katz et al., 2014). Nonetheless, relatively few studies on parental emotion socialization have been conducted with adolescent samples (Morris, Silk, Steinberg, Myers, & Robinson, 2007). These studies indicate that the coaching responses from the parents to adolescents' affect are associated with less internalizing symptomatology (Katz and Hunter, 2007) and, on the contrary, that punishing and neglectful responses from the parents are associated with increased emotional and behavioral problems in the offspring (Klimes-Dougan et al., 2007). These findings confirm that parents play a fundamental role on their teenage children emotional life.

These observations are consistent with Tomkins' theory of affect (Tomkins, 1962; 1963), since youths whose negative or positive emotions are rewarded and supported seem to display a healthier emotional development. Extending the work of Tomkins, Malatesta and Wilson (1988) and Malatesta-Magai (1991) proposed a model that delineates five strategies that parents often use to socialize their children's negative emotions (e.g., sadness, anger and

fear): *reward* (i.e., providing comfort, empathizing, and problem solving); *punish* (i.e., expressing disapproval for the emotion expressed by the adolescent or making fun of the adolescent); *neglect* (i.e., ignoring the adolescent's expression of emotion and unavailability when the adolescent expresses that emotion); *override* (i.e., having the objective of silencing/downplaying the expression of the emotion: dismissive or distracting behaviours); and *magnify* (i.e., expressing the same emotion expressed by the adolescents, with equal or stronger intensity). These strategies presumably facilitate or interfere with youth's ability to regulate their emotions (Malatesta-Magai, 1991). More precisely, this model suggests that, in the case of negative emotions, *reward* is generally a supportive strategy, and *punish*, *neglect*, *override*, and *magnify* are unsupportive parental socialization strategies regarding youth's ability to regulate negative emotions with detrimental consequences for their psychological adjustment and the onset of psychopathological symptoms (Malatesta-Magai, 1991; Kehoe, Havighurst, & Harley, 2014; Klimes-Dougan et al., 2007; O'Neal & Magai, 2005). Previous studies contradicted these findings regarding *override* and *magnify*, as they seem not to be always associated with negative outcomes (Klimes-Dougan, Brand, & Garside, 2001; Silk et al., 2011; Klimes-Dougan et al., 2014). These unsupportive strategies may teach adolescents that their parent disapprove the expression of negative emotions, without actually teaching them how to cope with their negative emotions (Brand, & Klimes-Dougan, 2010). In contrast, supportive strategies help to teach the adolescent that there are ways to deal with negative emotions and that they are a part of everyday life (Zeman, Cassano, & Adrian, 2013).

It's also important to note that most research on parental socialization of emotions and its outcomes in terms of youth's adjustment has been conducted on negative emotions. However, there is growing evidence that supportive parental responses to youth's positive emotions are also associated with their psychosocial adjustment. Previous research suggests that positive emotions are associated with several beneficial outcomes, namely, increased

cognitive flexibility, motivation, social connectedness, health, resilience, emotion regulation, coping with grief, and reward-seeking behaviour in adolescence (Fredrickson, 2013; Gruber, Devlin, & Moskowitz, 2014). Moreover, parental support of adolescents' positive emotions has been linked to higher levels of independence and more adaptive emotion regulation behaviours (Ladouceur, Reid, & Jacques, 2002; Yap, Allen, & Ladouceur 2008).

Regarding positive emotions, *reward* is also considered a supportive parental emotion socialization strategy, while *punish* and *neglect* are considered unsupportive strategies (Martins, Ferreira-Santos, & Meira, 2018). *Magnify* is considered a supportive strategy in this case because when parents share positive emotional expression with their children, they intensify the expression of that emotion (Clark & Monin, 2014). Therefore, when parents *reward* and *magnify* positive emotions, it is possible that they are helping their youth to increase their positive emotional experience, since sharing positive emotions with others increases and prolongs that experience (Gentzler, Morey, Palmer, & Yi, 2013; Langston, 1994). Moreover, parental explanations and debate about positive emotions with youths about why it is appropriate or not to express positive emotions could be considered a helpful socialization practice. However, prior studies also showed that parents' explanation about the appropriateness of positive emotions can be an invalidating response because it down-regulates their positive emotions (Yap et al. 2008). Also, in contrast to *reward* and *magnify*, *override* of positive emotions should be considered an unsupportive strategy since these parental reactions tend to decrease adolescents' positive emotions (Yi, Gentzler, Ramsey, & Root, 2016; Martins et al., 2018). Some studies on unsupported parenting strategies regarding positive emotions in children suggest that less acceptance of toddlers' positive emotional expressions may contribute to increase emotion dysregulation and psychopathological symptoms (Yi et al., 2016). In adolescence, parents who *punish* their children or show discomfort (e.g. *override*) associated with the expression of positive emotions, may increase the expression of negative

emotions (Ladouceur et al., 2002). Similarly, adolescents with more depression symptoms are often associated with parents who invalidate their positive emotion expressions (Katz et al., 2014; Yap et al., 2008).

As we are seeing, parental socialization of positive emotions has, in some circumstances, also been linked to emotion dysregulation and negative outcomes (Gentzler et al., 2013). However, research on the parental socialization of positive emotions is scarce, especially compared to the number of studies focused on the socialization of negative emotions (e.g., Bai, Repetti, & Sperling, 2016; Gentzler, Ramsey, & Black, 2015; Gentzler et al., 2013, Katz et al., 2014; Yap et al., 2008; Moran, Root, Vizu, Wilson, & Gentzler, 2019). Emotion regulation is the ability to influence which emotions we have, when we have them, and how we modify the experience and expression of these emotions to meet situational demands. On the contrary, emotion dysregulation can be defined as the absence of supportive strategies to modulate emotional responses in ways that promote progress towards goals, or the failure to use such strategies (Gross, 1998). Moreover, research suggests that parental reactions to adolescent's emotions are important to promote emotion regulation skills, which in turn are essential to adolescents' mental health and academic success (Wang, Liang, Zhou, & Zou, 2019), to promote adolescent's social and emotional well-being (Breux, McQuade, Harvey, & Zakarian, 2018), and to prevent the emergence of psychopathological symptoms and overall psychological dysfunction (Katz et al., 2014).

Higher levels of emotion dysregulation have been found to be associated with less support of adolescent's emotions from parents (Yi et al., 2016). Specifically, supportive strategies display empathy and provide comfort while facilitating the understanding and expression of emotions (Klimes-Dougan et al., 2007). These strategies tend to be associated with more adaptive youths' outcomes, including better suited emotion regulation strategies (Hooper, Wu, Ku, Gerhardt, & Feng, 2018). Adaptive emotion regulation is also associated

with greater social competence and lower externalizing and internalizing symptoms (Zeman, Cassano, Perry-Parrish, & Stegall, 2006). In contrast, unsupportive strategies to emotions in adolescence tend to decrease their expression and increase emotion dysregulation (Klimes-Dougan et al., 2007). Overall, parents who tend to adopt an unsupportive emotion socialization style tend to have children that express emotions in a more dysregulated manner, resulting in a higher likelihood for externalizing and internalizing disorders, as well as poorer social competence (Sanders, Zeman, Poon, & Miller, 2015).

Several studies have showed that mothers and fathers differ on the way in which they talk about and react to their children's emotion expression, and according to the gender of the youth (e.g., Garside & Klimes-Dougan, 2002; Eisenberg et al., 1998). Mothers seem to be more involved in socializing their children's emotions than fathers (e.g., Garside & Klimes-Dougan, 2002), and fathers are often more punitive in response to their children's displays of emotions than mothers (Klimes-Dougan et al., 2007). Garside and Klimes-Dougan (2002), also concluded that mothers' social interactions are distinct for girls and boys, such that they tend to respond more contingently to their son's emotional expressions than to their daughters. Also, mothers have been found to talk more frequently about emotions and to use more emotive words with their daughters than with their sons. Silva, Freire and Faria (2018), for example, found a significant association between parents' and adolescents' use of emotions regulation strategies, specifically within mother-adolescent dyads, which in turn varied as a function of the quality of their relationship. These findings suggest that mothers have a more significant role in their adolescents' emotion regulation in this developmental period.

In their study, Van Lissa, Keizer, Van Lier and Meeus (2018) focused on the role of mother and fathers in emotion regulation development from mid to late adolescence. Their results confirmed that support plays a more prominent role in mother-daughter than in mother-son relationships. Regarding fathers, adolescents perceive that they normally use more

behavioural control to conform to social or family norms, provided through rule setting. Also, when emotion regulation increases, adolescents feel like they are supported more and controlled less. In contrast, adolescents with emotion regulation difficulties feel their mothers reduce support and fathers increase behavioural control. Finally, adolescents' relationships with mothers tend to be closer, whereas fathers were viewed as authority figures (Klimes-Dougan et al., 2007). These findings suggest that support is a more salient socialization mechanism for mothers, while control is for fathers (Van Lissa et al., 2018).

This acknowledgement that mothers and fathers have a distinct impact in the ability of adolescents to regulate emotions has also implications to their psychological adjustment, namely, to the emergence of psychopathological symptoms (Brand, & Klimes-Dougan, 2010). Regarding parental socialization of positive emotions, Katz et al. (2014) compared mothers' and fathers' emotion socialization of positive emotions (i.e., happiness) in a sample that included both depressed and healthy adolescents. They found that parents of depressed adolescents are generally less supportive of their children's positive emotion than parents of non-depressed adolescents. Both mothers and fathers were more likely to *neglect* or *punish* their children's positive emotions than parents of healthy youth. Also, depressed adolescents reported that both mothers and fathers reacted with *override* to their positive emotions, and both depressed adolescents and their mothers reported that fathers were more likely to *punish* youth positive emotions than fathers of healthy youth.

In Yap et al. (2008) study, the relations among maternal socialization of positive emotions, adolescent emotion regulation, and adolescent depressive symptoms were examined. Some gender differences emerged, specifically, in the associations between maternal positive emotions socialization and adolescent emotion regulating and depressive symptoms. Maternal validation of positive emotions was associated with better emotion regulation, in boys but not in girls. Overall, it seems that the risk for depression is higher in girls due to maternal

invalidation of their positive emotions. These findings also suggest that maternal validation may serve as a protective factor for adolescent boys. Consistent with these findings, Katz et al. (2014) and Yi et al. (2016) also found evidence that adolescents whose mother responds to positive emotions in an unsupportive manner, displayed more internalizing behaviours (Katz et al., 2014). Yi et al. (2016) also found that maternal *override* responses to children's positive emotions were associated with more externalizing behaviours.

Overall, studies suggest that mothers and fathers play unique roles in the ability to regulate emotions and its association to psychopathological symptoms in adolescents. These findings also suggest that mothers differ considerably from fathers in emotion socialization strategies used with their children and, in general, parents tend to discuss emotions with their daughters more than with their sons (Gentzler, Kerns, & Keener, 2010). Nevertheless, fathers seem to be less involved in the emotional lives of their children than mothers (Klimes-Dougan et al., 2007).

As we mentioned above, *reward* and *magnify* of positive emotion are considered supportive parental socialization strategies because they are associated with more positive outcomes and less negative outcomes in adolescence (Martins et al., 2018). On the other hand, *punish*, *neglect*, and *override* of positive emotions are considered unsupportive strategies, since they are more linked to youth's psychopathological symptoms. Unsupportive strategies are those that attenuate positive emotions and, therefore, interfere with one's ability to reap benefits from the resulting emotions. Gentzler and colleagues (2013) examined how maximizing (e.g., sharing, marking, or celebrating the event, or reflecting on the event and positive emotions) and minimizing (e.g., downplaying the event's significance and its likelihood to recur) responses to positive events were associated with sustained positive feelings about the events and adjustment in young adolescents. The results showed that minimizing responses seem to be related to higher levels of externalizing and internalizing symptoms in adolescents (Gentzler

et al., 2013). Maternal dismissive responses, which include maternal reprimanding (e.g., punish) and discomfort (e.g., override), to their children's positive emotions were found to be related to more externalizing and internalizing symptoms, and down-regulate youth's positive emotions (Yi et al., 2016; Yap et al., 2008). Katz et al. (2014) also showed that parents dampening responses, including minimizing and discouraging of adolescent's happiness, directing the adolescent to engage in different behaviours, and punishing, may be linked to the adolescents' decreased excitement about positive experiences. Additionally, such parental responses can increase depressive symptoms, since they may also leave the adolescent feeling alone and misunderstood (Katz et al., 2014). Hence, adolescents with externalizing or internalizing symptoms have been found to have more difficulties in emotion regulation related to positive emotions. These findings suggest that the association between maternal socialization and adolescent symptomatology seems to be mediated by adolescent's emotion dysregulation (e.g., Yap et al., 2008; Moran et al., 2019). Nevertheless, more studies on the role of maternal socialization practices of positive emotion are needed to understand their association to emotion dysregulation and psychological adjustment.

Parental emotion socialization strategies have been shown to have a specific impact on emotional well-being in childhood, from preschool (e.g., Hooper et al., 2018) to middle childhood (e.g., Silk et al., 2011), with unsupportive contingencies being associated with emotional problems and supportive contingencies being associated with better emotional outcomes. Nevertheless, there are still few studies on parental emotion socialization strategies with adolescent samples (e.g., Briscoe, Stack, Dickson & Serbin, 2019; Zeman et al., 2013), specifically regarding emotion socialization of positive emotions (e.g., Katz, 2014; Nyquist, 2019; Raval, Luebbe, & Sathiyaseelan, 2019; Raval, Li, Deo, & Hu, 2018) and its link to emotion dysregulation and psychopathological symptoms. This is important because adolescence is a critical period in emotional development, as adolescents' relationships become

more complex and authority figures hold them to higher standards (Brand & Klimes-Dougan 2010). At the same time, the demands for adherence to cultural norms and standards also increases in this developmental stage (Brand et al., 2010). Parents expect more emotionally competent behaviours as their child's age increases, and therefore their expectations (O'Neal & Magai, 2005) and emotion socialization practices change accordingly. For example, they may tend to be less supportive or more punitive with older than younger children (Klimes-Dougan et al., 2007). Also, O'Neal and Magai (2005) reported that unsupportive contingencies were associated with higher levels of externalizing and internalizing symptoms in adolescence.

Researchers have also found that developmental pathways associated with emotion socialization, emotion dysregulation, and psychopathological symptoms vary by gender in adolescence (e.g., Bai & Repetti, 2018; Klimes-Dougan et. al 2007; Cassano & Zeman, 2010; Garside and Klimes-Dougan, 2002; Yap et al., 2008). First, adolescent girls typically report greater emotion regulation difficulties than boys (Silk et al., 2003). Second, parents raise boys and girls differently (Yap et al., 2008), showing greater control over girls than boys. Third, boys and girls might be differently affected by parenting practices (Klimes-Dougan et al., 2007). So, parents might encourage boys and girls to express their emotions in a way consistent with preconceived social roles, and to suppress inconsistent emotions (e.g., Yap et al., 2008). For girls, "tender emotions" (e.g., empathy, guilt) and positive affect would be important because they sustain the patterns of nurturance, affiliation, and responsibility for others, required for optimal caregiving and other interpersonal relationships. For boys, anger and other externalizing emotions help to support activities associated with autonomy, authority, dominance, and combat (Zahn-Waxler, 2010). Boys and girls are influenced according to these social roles, which may lead them to different ways of expressing and experience their emotions (Klimes- Dougan et al., 2007). For example, observational studies on emotional expression typically indicate that girls and women express negative emotions (e.g., sadness,

fear) as well as positive emotion (e.g., happiness, empathy) more often than boys and men. Nezlek and Kuppens (2008) also found that suppressing positive emotions was more strongly associated with decreases in adjustment and self-esteem and increases in negative emotions for women compared to men. In this respect, previous research has consistently found that women express positive emotion more than men, perhaps because of gender stereotypes and social roles. When women do not suit to these stereotypes or roles, this has more negative consequences for their adjustment than it does for men (Nezlek & Kuppens, 2008). Moreover, some evidence points to possible gender differences in the association between emotion regulation and psychological adjustment. Individual differences in constructs related to emotion regulation, such as distress tolerance or rumination, were found to be linked to internalizing problems among girls but not boys. Also, teachers and clinicians often rate boys as having more externalizing problems than girls (Bai & Repetti, 2018).

In summary, these findings suggest that the influence of the child's gender is important to understand the process of parental emotion socialization, and that different parental emotion socialization strategies are used with youths not only depending on their gender but also on the type of emotion that is being expressed (O'Neal & Magai, 2005). Research has also shown that studies regarding maternal socialization of positive emotions in adolescence are still reduced (Katz et al., 2014). Likewise, the association between parental socialization of positive emotion, emotion dysregulation and internalizing symptoms (more precisely in depressive symptoms) has been established by several studies, but regarding externalizing symptoms studies are still scarce and inconclusive. Moreover, several studies have also found evidence for gender differences regarding the association between emotion regulation and psychological adjustment in adolescence (e.g., Bai & Repetti, 2018).

In this context, the present study intends to deepen our understanding of the association between maternal socialization of positive emotions, emotion regulation, and psychological

adjustment in adolescence. Specifically, our objectives are; to verify if emotion dysregulation mediates the relation between unsupportive (i.e., punish, neglect and override) maternal emotion socialization strategies of overjoy and adolescents' outcomes in terms of externalizing and internalizing psychopathological symptoms; and if there are distinct pathways for boys and girls. Given these specific objectives, and considering the findings from previous studies, we hypothesized that emotion dysregulation mediates the association between maternal *punish* and *override* and externalizing and internalizing symptoms, and the association between maternal *neglect* of overjoy and internalizing symptoms, for boys (Yi et al., 2016; Katz et al., 2014; Gentzler et al., 2013; Yap et al., 2008). For girls, we hypothesized that emotion dysregulation mediates the association between maternal *punish*, *neglect* and *override* of overjoy and internalizing symptoms (Raval et al., 2019; Yi et al., 2016; Katz et al., 2014; Yap et al., 2008).

Method

Participants

Participants in the current study were 418 Portuguese adolescents (57.7% girls and 42.3% boys), aging from 13 to 19 years old ($M = 14.75$; $SD = 1.31$). The adolescents were recruited in six high schools located at four northern Portuguese cities, after obtaining the permission from the *Direção-Geral da Educação*, the managing body of the Portuguese Education System. Participation in the study demanded parents' signature of an informed consent. Adolescents signalized with cognitive impairment, by the form teachers and the school services, were excluded from the study as this would impair them to fill-out the questionnaires independently.

The final sample included adolescents that were attending the seventh ($N = 10$; 2.4%), eighth ($N = 229$; 54.8%), ninth ($N = 86$; 20.6%), tenth ($N = 30$; 7.2%), eleventh ($N = 46$; 11%), and twelfth ($N = 17$; 4.1%) grades. Their mothers had university level of education ($N = 39$;

9.3%), 12 years of education (N = 75; 17.9%), 6 to 9 years (N = 203; 48.6%) 4 years (N = 95; 22.7%), 4 years incomplete (N = 3; 0.7%) and no schooling (N = 3; 0.7%).

Procedures

The study was first presented to the adolescents by a research assistant with the help of the form teacher. Overall, three research assistants, master's degree students in Clinical and Health Psychology, participated in data collection procedures. The questionnaires were administered by the research assistants, in a classroom, ensuring data's anonymity. The instructions given to the adolescents included the: (1) presentation of the study's goals (i.e., to assess several variables related to adolescent's overall functioning); (2) presentation of the questionnaire protocol; and (3) request to complete all the items of each questionnaire. After these instructions, the assistant researcher distributed the questionnaires (without reading them out loud) to the participants, who filled them out autonomously.

Instruments

Sociodemographic questionnaire. In the present study we used a sociodemographic questionnaire to gather information about the adolescents and their mothers and fathers, more specifically, about the adolescents' ages, gender, years of education and household; and parents' professional situation (unemployed or employee), years of education and profession. For this study were only used the adolescents' ages, gender, years of education and the mothers' years of education.

Maternal emotion socialization. In the present study we used the Portuguese version (Martins et al., 2018) of the Emotion Socialization Scale (ESS; Magai, C.: Emotions as a child. Unpublished manuscript.) youth self-report, in questionnaire format. The ESS assesses five

maternal socializations strategies: *reward* (comfort, empathizing and problem solving); *magnify* (expressing the same emotion expressed by the adolescents, with equal or stronger intensity); *punish* (expressing disapproval for the emotion expressed or making fun of the adolescent); *neglect* (ignoring the expression of emotion and unavailability when the adolescent expresses that emotion); and *override* (silencing/ downplaying the expression of the emotion: dismissive or distracting behaviours). Since we used the Portuguese version of the scales, each maternal socialization strategy was assessed within one of four emotions, three negative –sadness, anger, fear–, but also and one positive–overjoy (Martins et al., 2018). Adolescents rated how much their mother was likely to respond/react to each emotion by using a variety of socializing behaviours/strategy (60 items, 15 items per emotion, 3 items per emotion socialization strategy) on a 5-points Likert scale (1= never, 3= sometimes, 5= very often). To score this instrument, we calculated the mean of the items included in each emotion socialization strategy according to the Portuguese factorial structure (Martins et al., 2018). However, for this study we only use the results of unsupportive strategies (punish, neglect and override) of positive emotion (overjoy). For the positive emotion of overjoy the item structure was as follows: *punish* of overjoy (items 2, 5, 9), $\alpha_{\text{girls}} = .80$, $\alpha_{\text{boys}} = .78$; *neglect* of overjoy (reverse items 1, 12), $\alpha_{\text{girls}} = .50$, $\alpha_{\text{boys}} = .55$; *override* of overjoy (items 7, 11), $\alpha_{\text{girls}} = .70$, $\alpha_{\text{boys}} = .70$. The internal consistency of most emotion socialization strategies using Cronbach's alpha reached acceptable to good levels except for the *neglect* scales for overjoy.

Emotion dysregulation. In the present study, the Portuguese version (Coutinho, Ribeiro, Ferreirinha & Dias, 2010) of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) was used. This questionnaire assesses the following 6 adolescents' difficulties in the process of emotion regulation: (1) access to emotion regulation strategies; (2) non-acceptance of emotion responses; (3) lack of emotion consciousness; (4) impulse control difficulties; (5) difficulties in acting in accordance with the goals; (6) lack of emotion clarity.

A higher score in the DERS indicated greater difficulties in emotion regulation (i.e., greater emotion dysregulation). The DERS questionnaire contains 36 items, to which participants are asked to indicate how often the items apply to themselves, on a 5-points Likert scale, where 1 is almost never (0–10%), 2 is sometimes (11–35%), 3 is about half the time (36–65%), 4 is most of the time (66–90%), and 5 is almost always (91–100%). The internal consistency of the emotion regulation using Cronbach's alpha reached good levels, $\alpha_{\text{girls}} = .91$ and $\alpha_{\text{boys}} = .90$.

Internalizing and externalizing symptoms. In the present study were used the Portuguese version (Achenbach, Rescorla, Dias, Ramalho, Lima, Machado & Gonçalves, 2014) of the Youth Self- Report (YSR; Achenbach & Rescorla, 2001) . The YSR were administered to the participants to assess the internalizing behavior and externalizing behavior. This self-assessment questionnaire has 112 items with structured questions relating to problems and three open questions that allow us to know the perception of the participant on their behaviours, problems and skills. The participants should score the items on a scale of three points: 0 if the statement isn't true, 1 if the statement is somehow or sometimes true and 2 if the statement is true or often true. For the purpose of this study we used the YSR second order scales externalization and internalization. The externalization scale integrates the two syndromes scales: delinquent behavior and aggressive behavior. The internalization scale integrates three first order syndromes scales: anxiety/depression, isolation/depression and somatic complaints. The internal consistency of the externalization using Cronbach's alpha also reached good levels, $\alpha_{\text{girls}} = .87$ and $\alpha_{\text{boys}} = .89$. The internal consistency of the internalization using Cronbach's alpha reached good levels, $\alpha_{\text{girls}} = .86$ and $\alpha_{\text{boys}} = .91$.

Analytic Plan

The IBM SPSS Statistics 25 software (2017, IBM Statistics, New York, USA) was used for data analysis. Firstly, we present the descriptive statistics for the study variables followed

by correlations among sociodemographic variables (adolescents' age, adolescents' years of education and mothers' years of education) and emotions socializations strategies, emotion dysregulation, externalization and internalization; and the correlations between main variables (emotions socializations strategies, emotion dysregulation, externalization, internalization), separately by gender. For this purpose, Pearson correlation coefficient was used for all variables, including the sociodemographic variable "adolescents' age"; Spearman correlation coefficients were used to the other sociodemographic variables. Independent *t*-tests were used to evaluate gender differences.

In the present study, we aimed to explore the association between unsupportive maternal emotion socialization strategies and psychological symptoms, in adolescents, as mediated by emotion dysregulation. The mediation procedures were performed by using the SPSS PROCESS v3.1 (Hayes, 2018). Based on the theoretical considerations, we examined whether emotion dysregulation mediated the relationship between *punish*, *neglect* and *override* of overjoy, and externalization and internalization symptoms. Also, were created distinct pathways for boys and girls to verify the existence of gender differences. Therefore, twelve separate models were used to predict boys' externalization, girls' externalization, boys' internalization and girls' internalization symptoms (see Figures 1 to 12).

Results

Descriptives and Correlations

Descriptive statistics are listed in Table 1 for maternal emotions socializations strategies, emotion dysregulation, internalization, externalization and sociodemographic variables. Independent samples *t*-tests, see Table 1, was used to determine the mean difference in the maternal emotions socializations strategies, emotion dysregulation, externalization and internalization, between boys and girls. There is enough evidence that boys report more

maternal *punish* of overjoy, $t(416) = 4.25, p < .001$ and more maternal *neglect* of overjoy, $t(416) = 3.80, p < .001$, than girls. No gender differences emerged for maternal *override* of overjoy, $t(416) = 1.42, p = .16$. There is enough evidence that girls report more emotion dysregulation, $t(416) = -3.07, p < .01$ and more internalization, $t(416) = -3.83, p < .001$, than boys. No gender differences emerged for externalization, $t(416) = .82, p = .41$.

Table 1Descriptive Statistic for sociodemographic variables emotions socializations strategies, emotion dysregulation, externalization, internalization ($N = 418$)

	Boys		Girls		Total		Independent <i>t</i> -teste (<i>t</i> , <i>p</i> , <i>ES</i> , <i>CI</i>)
	<i>M</i> (<i>SD</i>)	Min - Max	<i>M</i> (<i>SD</i>)	Min - Max	<i>M</i> (<i>SD</i>)	Min - Max	
Sociodemographic variables							
Adolescents' age	14.85 (1,29)	13-18	14.67 (1,34)	13-19	14.75 (1,31)	13-19	
Adolescents' years of education	2.80 (1.20)	1-6	2.83 (1.24)	1-6	2.82 (1,22)	1-6	
Mothers' years of education	4.21 (1.08)	1-8	7.08 (.98)	1-8	4.14 (1.02)	1-8	
Emotions socialization strategies							
Punish Overjoy	1.91 (1.03)	1-5	1.52 (.87)	1-5	1.69 (.96)	1-5	$t = 4.25, p < .001, .20, CI [.21, .59]$
Neglect Overjoy	2.71 (.75)	1-4.33	2.42 (.80)	1-5	2.54 (.79)	1-5	$t = 3.80, p < .001, .20, CI [.14, .44]$
Override Overjoy	2.32 (.96)	1-5	2.19 (.89)	1-5	2.25 (.92)	1-5	$t = 1.42, p = .16, .07, CI [-.05, .31]$
Emotion dysregulation	82.66 (19.94)	48.00- 148.00	89.10 (22.12)	42.00- 167.00	86.37 (21.44)	42.00- 167.00	$t = -3.07, p < .01, .15, CI [-10.51, -2.38]$
Externalization	12.46 (9.05)	.00-43.00	11.76 (8.22)	.00-55.00	12.06 (8.58)	.00-55.00	$t = .82, p = .41, .04, CI [-1.00, 2.39]$
Internalization	12.62 (9.72)	.00-45.00	16.15 (8.99)	.00-53.00	14.65 (9.46)	.00-53.00	$t = -3.83, p < .001, .19, CI [-5.36, -1.69]$

Nota. Adolescents' years of education, 1 = 7^o grade, 6 = 12^o grade; Mothers' years of education, 1 = no schooling, 8 = PhD

ES = effect size for independent *t*-test; CI = 95% confidence interval for independent *t*-test

Table 2 presents the correlations among sociodemographic variables and emotions socializations strategies, emotion dysregulation, externalization and internalization. Regarding correlations between sociodemographic variables we found that adolescents' age was correlated with adolescents' years of education, for both boys and girls. In contrast, adolescents' age wasn't correlated with mothers' years of education. Adolescents' years of education was correlated with mothers' years of education, for both boys and girls. Regarding correlations between adolescents' age and emotion socialization strategies we found that adolescents' age was correlated with maternal *neglect* of boys overjoy. No association was found between adolescents' age and maternal *punish* and *override* of boys overjoy, and maternal variables of girls overjoy. Regarding correlations between adolescents' years of education and emotion socialization strategies we found adolescents' years of education was negatively correlated with maternal *punish* of boys overjoy. Adolescents' years of education was negatively correlated with maternal *override* of girls overjoy. No association was found between adolescents' years of education and maternal *neglect* and *override* of boys overjoy and maternal *punish* and *neglect* of girls overjoy. Regarding correlations between mothers' years of education and emotion socialization strategies we found no association between these variables. No association was found between sociodemographic variables, emotion dysregulation, externalization and internalization. Except for adolescents' years of education that was negatively correlated with girls' externalization.

Table 2

Correlations between sociodemographic variables and emotions socializations strategies, emotion dysregulation, externalization, internalization ($N = 418$)

	Adolescents' age		Adolescents' years of education ^a		Mothers' years of education ^a	
	Boys	Girls	Boys	Girls	Boys	Girls
Sociodemographic variables						
Adolescents' age	1	1				
Adolescents' years of education ^a	.55**	.65**	1	1		
Mothers' years of education ^a	-.01	.20	.26**	.25**	1	1
Emotions Socialization Strategies						
Punish Overjoy	-.03	.01	-.16*	-.11	-.07	-.09
Neglect Overjoy	.15*	-.07	.03	-.04	-.06	-.05
Override Overjoy	-.06	-.11	-.15	-.16*	-.09	-.08
Emotion dysregulation	-.90	-.12	-.13	-.10	-.06	-.04
Externalization	.14	.11	.11	-.13*	.05	.09
Internalization	.04	.04	-.01	.06	.00	.04

Nota. ^aAll correlations are Pearson Correlations with exception of years of education with Spearman correlation

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

Correlations between the main variables (emotions socializations strategies, emotion dysregulation, internalization, externalization) are listed in Table 3. Maternal *punish* of boys overjoy was correlated with maternal *override* of boys overjoy, emotion dysregulation, externalization and internalization. No association was found between maternal *neglect* of boys overjoy and the remaining variable. Maternal *override* of boys overjoy was correlated with emotion dysregulation. No association was found between maternal *override* of boys overjoy and the remaining variable. Maternal *punish* of girls overjoy was correlated with maternal *neglect* of girls overjoy and maternal *override* of girls overjoy. No association was found between maternal *punish* of girls overjoy and the remaining variable. Maternal *neglect* of girls overjoy was correlated with emotion dysregulation. No association was found between maternal *neglect* and the remaining variable. No association was found between maternal *override* of girls overjoy and the remaining variable. We found correlations between emotion dysregulation and externalization, and between emotion dysregulation and internalization, for both boys and girls.

Table 3Correlations between emotions socializations strategies, emotion dysregulation, externalization and internalization ($N = 418$)

	Boys						Girls					
	1	2	3	4	5	6	1	2	3	4	5	6
Emotions Socialization Strategies												
1. Punish Overjoy	1						1					
2. Neglect Overjoy	.09	1					.23**	1				
3. Override Overjoy	.75**	-.11	1				.66**	.00	1			
4. Emotion Dysregulation	.34**	.05	.30**	1			.02	.08	.07	1		
5. Externalization	.22**	.08	.13	.29**	1		.06	.20**	.10	.40**	1	
6. Internalization	.18*	.12	.11	.44**	.77**	1	-.02	.07	-.03	.57**	.63**	1

Nota. All correlations are Pearson Correlations

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

Mediation

Mediation models were examined to determine whether emotion dysregulation mediated the relation between unsupportive maternal emotion socialization strategies (punish, neglect and override) of overjoy and adolescents' psychological symptoms (externalization and internalization). Distinct pathways for boys and girls were created to analyse possible gender differences. Therefore, twelve separate mediations models were used to predict boys' externalization and internalization, and girls' externalization and internalization.

Boys' Externalization. As shown in Figure 1, there was a significant indirect effect of maternal *punish* of overjoy on externalizing symptoms through emotion dysregulation, $b = .71$, 95% BCa CI [.21, 1.31] (Effect size, $b = .08$, 95% BCa CI [.02, .15]). In contradiction, there wasn't a significant indirect effect of maternal *neglect* of overjoy on externalizing symptoms through emotion dysregulation, $b = .18$, 95% BCa CI [-.38, .71] (Effect size, $b = .01$, 95% BCa CI [-.03, .06]) (see Figure 2). As shown in Figure 3, there was a significant indirect effect of maternal *override* of overjoy on externalizing symptoms through emotion dysregulation, $b = .77$, 95% BCa CI [.26, 1.43] (Effect size, $b = .08$, 95% BCa CI [.03, .15]).

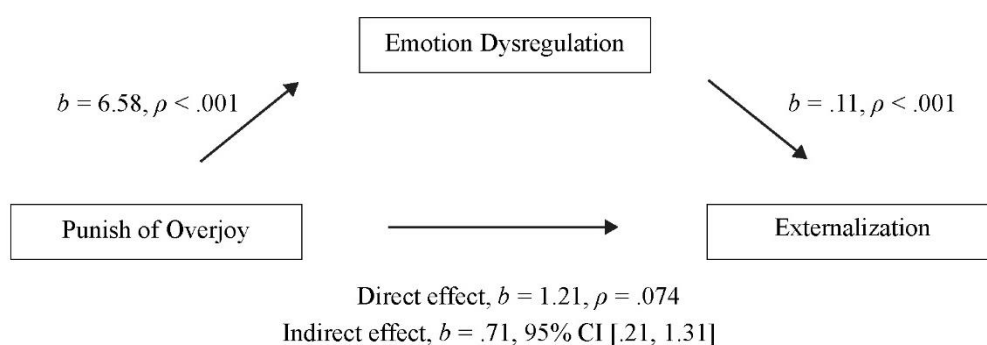


Figure 1. Mediation model for associations between maternal punish of overjoy and externalizing symptoms as mediated by emotion dysregulation, for boys.

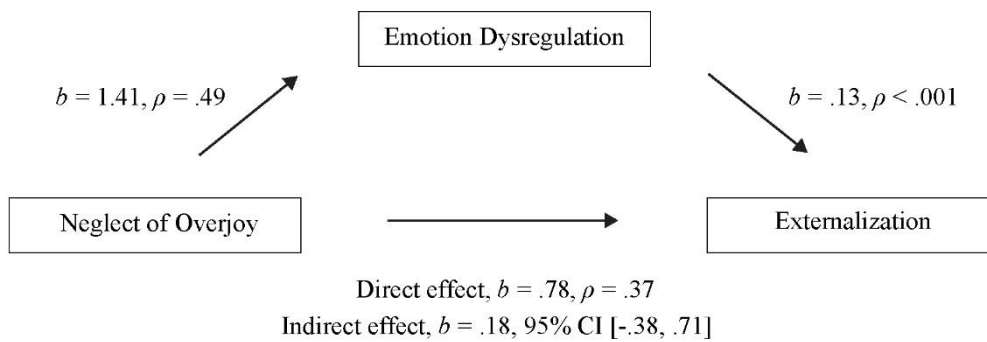


Figure 2. Mediation model for associations between maternal neglect of overjoy and externalizing symptoms as mediated by emotion dysregulation, for boys.

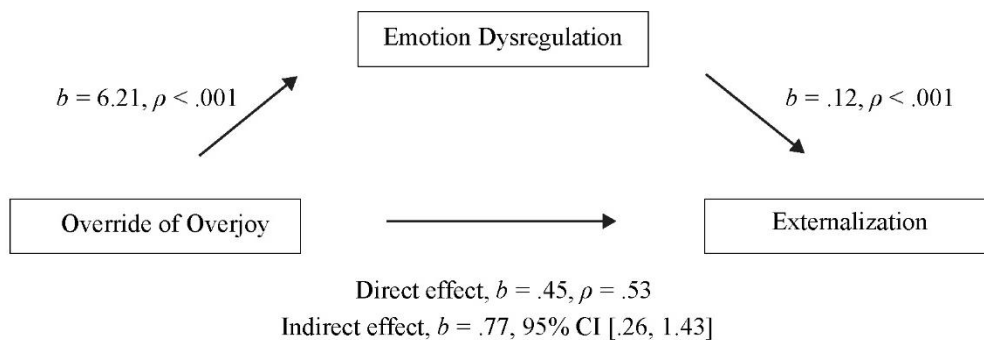


Figure 3. Mediation model for associations between maternal override of overjoy and externalizing symptoms as mediated by emotion dysregulation, for boys.

Girls' Externalization. As shown in Figure 4, there wasn't a significant indirect effect of maternal *punish* of overjoy on externalizing symptoms through emotion dysregulation, $b = .07, 95\% \text{ BCa CI } [-.36, .48]$ (Effect size, $b = .01, 95\% \text{ BCa CI } [-.04, .05]$). The same mechanism also stands for the indirect effect of maternal *neglect* of overjoy on externalizing symptoms through emotion dysregulation, $b = .31, 95\% \text{ BCa CI } [-.15, .83]$ (Effect size, $b = .03, 95\% \text{ BCa CI } [-.02, .08]$) (see Figure 5). Also, there wasn't a significant indirect effect of maternal *override* of overjoy on externalizing symptoms through emotion dysregulation, $b = .25, 95\% \text{ BCa CI } [-.17, .73]$ (Effect size, $b = .03, 95\% \text{ BCa CI } [-.02, .08]$) (see Figure 6).

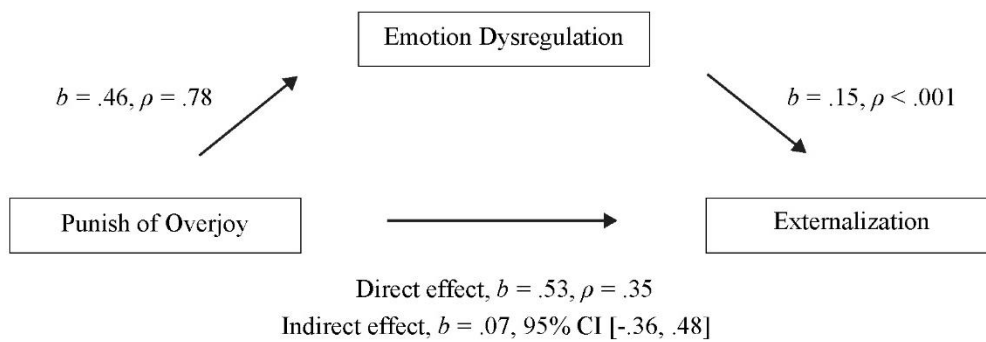


Figure 4. Mediation model for associations between maternal punish of overjoy and externalizing symptoms as mediated by emotion dysregulation, for girls.

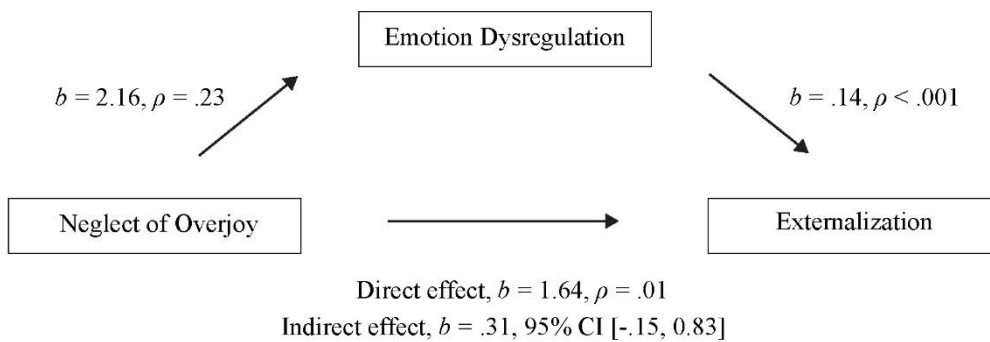


Figure 5. Mediation model for associations between maternal neglect of overjoy and externalizing symptoms as mediated by emotion dysregulation, for girls.

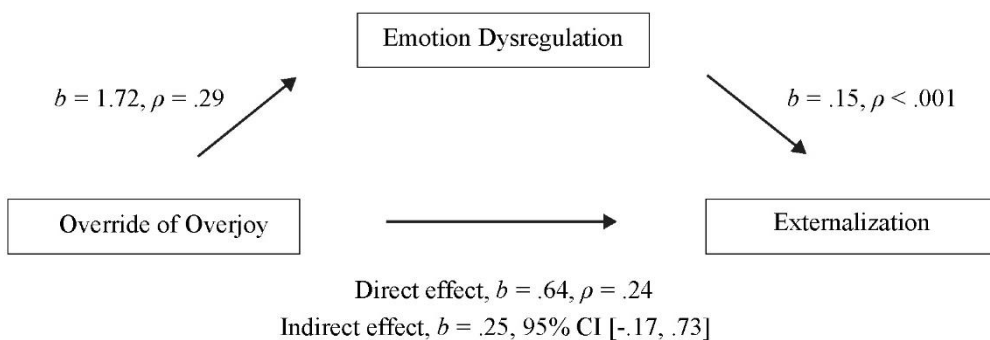


Figure 6. Mediation model for associations between maternal override of overjoy and externalizing symptoms as mediated by emotion dysregulation, for girls.

Boys' Internalization. As shown in Figure 7, there was a significant indirect effect of maternal *punish* of overjoy on internalizing symptoms through emotion dysregulation, $b = .71$, 95% BCa CI [.21, 1.31] (Effect size, $b = .15$, 95% BCa CI [.07, .23]). In contradiction, there wasn't a significant indirect effect of maternal *neglect* of overjoy on internalizing symptoms through emotion dysregulation, $b = .30$, 95% BCa CI [-.62, 1.18] (Effect size $b = .02$, 95% BCa CI [-.05, .05]) (see Figure 8). As shown in Figure 9, there was a significant indirect effect of maternal *override* of overjoy on internalizing symptoms through emotion dysregulation, $b = .77$, 95% BCa CI [.026, 1.43] (Effect size, $b = .13$, 95% BCa CI [.06, .22]).

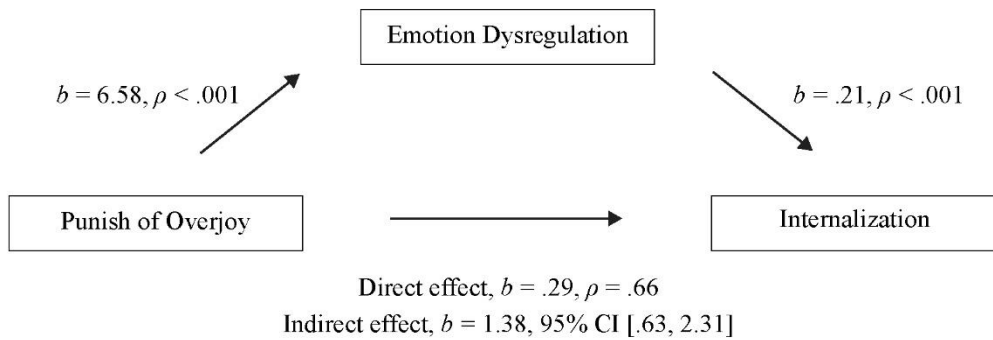


Figure 7. Mediation model for associations between maternal punish of overjoy and internalizing symptoms as mediated by emotion dysregulation, for boys.

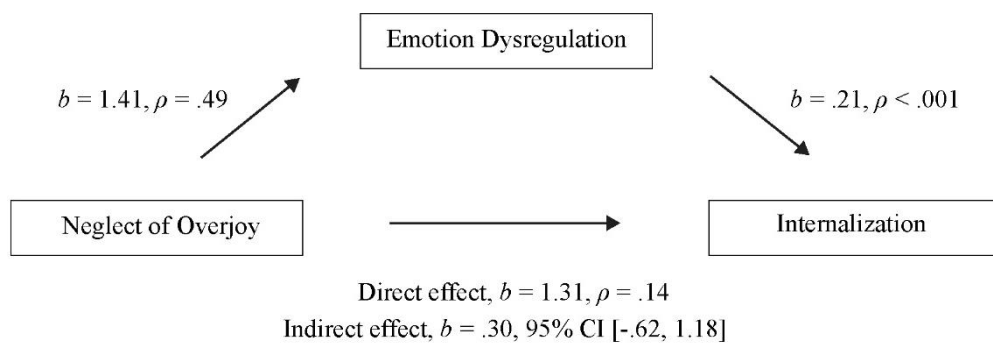


Figure 8. Mediation model for associations between maternal neglect of overjoy and internalizing symptoms as mediated by emotion dysregulation, for boys.

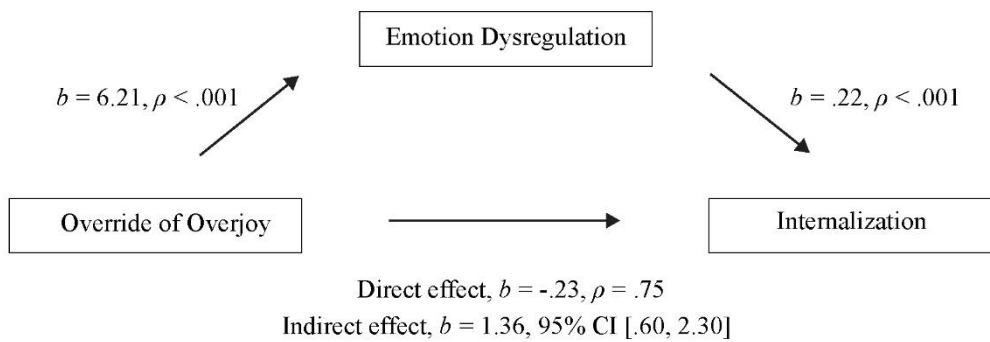


Figure 9. Mediation model for associations between maternal override of overjoy and internalizing symptoms as mediated by emotion dysregulation, for boys.

Girls' Internalization. As shown in Figure 10, there wasn't a significant indirect effect of maternal *punish* of overjoy on internalizing symptoms through emotion dysregulation, $b = .11, 95\% \text{ BCa CI } [-.57, .71]$ (Effect size, $b = .01, 95\% \text{ BCa CI } [-.05, .07]$). The same mechanism also stands for the indirect effect of maternal *neglect* of overjoy on internalizing symptoms through emotion dysregulation, $b = .50, 95\% \text{ BCa CI } [-.21, 1.32]$ (Effect size, $b = .04, 95\% \text{ BCa CI } [-.02, .11]$) (see Figure 11). Also, there wasn't a significant indirect effect of maternal *override* of overjoy on internalizing symptoms through emotion dysregulation, $b = .40, 95\% \text{ BCa CI } [-.31, 1.09]$ (Effect size, $b = .04, 95\% \text{ BCa CI } [-.03, .11]$) (see Figure 12).

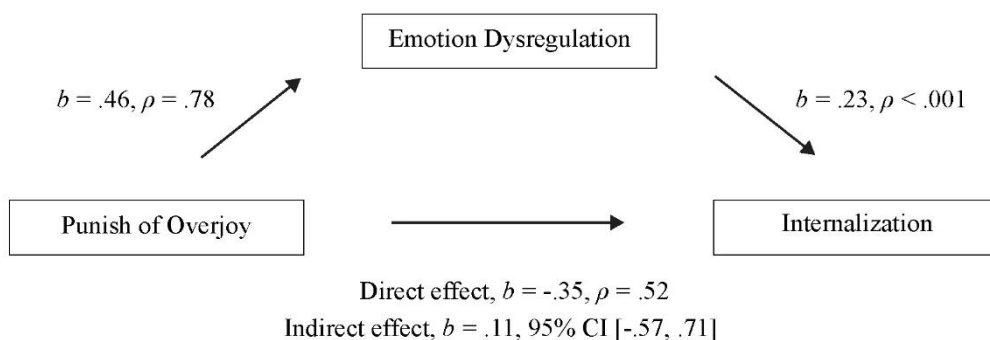


Figure 10. Mediation model for associations between maternal punish of overjoy and internalizing symptoms as mediated by emotion dysregulation, for girls.

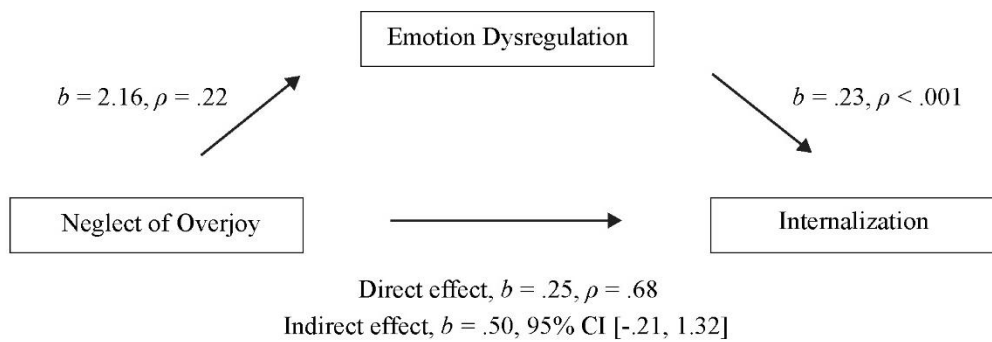


Figure 11. Mediation model for associations between maternal neglect of overjoy and internalizing symptoms as mediated by emotion dysregulation, for girls.

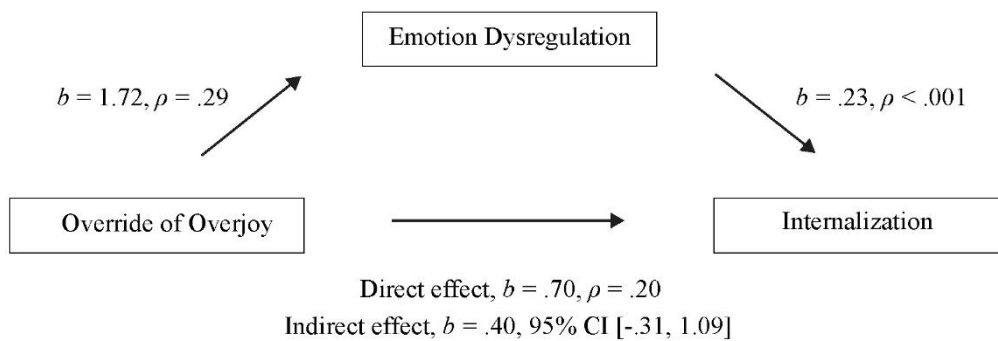


Figure 12. Mediation model for associations between maternal override of overjoy and internalizing symptoms as mediated by emotion dysregulation, for girls.

Discussion

The overall objective of this study was to deepen our understanding of the association between maternal socialization of positive emotions, emotion regulation, and psychological adjustment in adolescence. Our findings provide some evidence that emotion dysregulation mediates the association between unsupportive (i.e., punish, neglect, and override) maternal emotion socialization strategies of overjoy and adolescents' outcomes in terms of externalizing and internalizing psychopathological symptoms, which is partially consistent with previous

research with adolescents (Moran et al., 2019; Yi et al., 2016; Katz et al. 2013; Yap et al. 2008), and with our initial hypotheses.

More specifically, our results show evidence of gender differences, but not exactly the ones predicted by previous research. For boys, we found that emotion dysregulation mediates the association between *punish* and *override* and externalizing symptoms, as predicted and it is consistent with previous findings from, for example, Yi et al. (2016) and Gentzler et al. (2013). It is possible that mothers that express disapproval for the adolescent expression of positive emotion (i.e., *punish*) or try to distract the adolescent from that positive emotion (i.e., *override*) may lead the adolescent to experience fewer positive emotion and/or less intense or durable, and may also increase emotion dysregulation and youth externalizing symptoms. Boys might be encouraged to express some of their emotions in a way consistent with preconceived social roles (e.g., expressing emotions help to support activities associated with autonomy, authority, dominance, and combat) and to suppress other emotions (e.g., Yap et al., 2008). These may in turn teach the adolescents to dampen their own positive experiences, which has been linked to behavioural problems (Gentzler et al., 2013). These findings allow us to go further on the current understanding of the factors related to externalizing symptoms in youth, specifically that there is an association between these factors, for boys.

Also, we found that emotion dysregulation does not mediate the association between maternal *neglect* of overjoy and externalizing symptoms, for boys. However, difficulties in emotion regulation were positively associated with externalizing. A possible explanation is the low internal consistency in *neglect* of overjoy. This may relate to the different items to *neglect* of overjoy in questionnaire. Item 14 describes parental negative behaviour (“...did not pay attention to my overjoy”) while the other two items are positive reactions (“... took time to focus on me”). Future work using this instrument could benefit from rewriting this item, for a possible better understanding about the mediation with this strategy.

Regarding girls, emotion dysregulation does not mediate the association between maternal *punish*, *neglect*, and *override* of overjoy and externalizing symptoms. However, difficulties in emotion regulation were positively associated with externalizing symptoms. Several studies have shown that maternal *punish*, *neglect*, and *override* of overjoy are linked to externalizing symptoms and that emotion dysregulation mediate this association (Yi et al., 2016 and Gentzler et al., 2013). Nevertheless, this association with externalizing symptoms was never studied with different pathways for boys and girls. Despite the non-significant association, we already expected that girls would be less associated with externalizing symptoms, since mothers have been found to talk more frequently about emotions and to use more emotive words with their daughters (Garside, & Klimes-Dougan, 2002); and previous research found that girls express more positive emotion than boys (Nezlek, & Kuppens, 2008). By doing so, girls may decrease emotion dysregulations and externalizing symptoms. This also may have happened because of the perceptions that adolescents, in this study, have about the strategies that their mothers use (e.g., due to culture, values). In the case of Portuguese parents, our results may be related to the importance of collectivist values (Prioste, Narciso, Gonçalves, & Pereira, 2015). Parenting in collective cultures (Rudy, Grusec, & Wolfe, 1999) aim to teach youth to learn how to inhibit the expression of their wishes and needs, to self-restraint, and privilege the attendance of others' needs (e.g., Latin-American and Asian countries). Consequently, parents' higher control and imposition of self-restraint, which included in rejection and overprotection dimensions, might be interpreted positively by Portuguese adolescents because they may not associate it with negative parental intentions or lack of emotional support. Since studies regarding this subject with Portuguese samples are scarce, our explanations remain hypothetical. Nonetheless, our results advance the current understanding of factors related to externalizing in girls, namely, for girls there seems to be a lower association between these factors, but further research on this topic is needed.

Regarding boys internalizing symptoms, our results show that emotion dysregulation mediates the association between *punish* and *override* and internalizing symptoms, as predicted, and consistent with previous findings from, for example, Yi et al. (2016), Katz et al. (2014) and Yap et al. (2008). Indeed, it is possible that mothers that use these strategies may lead adolescents to think they might have something about which to worry rather than something about which to be happy. Also, parents of depressed youth tend to interfere with positive events by telling their children they should be engaging in behaviours other than the ones generating the positive emotion (Katz et al., 2014), and by doing so, boys may increase the suppression of positive emotions. It seems that Portuguese boys appeal more to emotional suppression (Vaz, Martins, Costa Martins, 2008), which is considered a maladaptive strategy and is associated with more negative outcomes (Srivastava, Tamir, McGonigal, John, & Gross, 2009). This may decrease adolescents excitement about positive experiences and increase emotion dysregulation and youth internalizing symptoms.

On the other hand, our results do not support the hypotheses for that emotion dysregulation mediates the association between maternal *neglect* of overjoy and internalizing symptoms, for boys. Nevertheless, difficulties in emotion regulation were positively associated with internalizing. This finding is not consistent with previous research. For example, in Katz et al. (2014) study, mothers of depressed youths were more likely to ignore (neglect) their children's positive emotions. From the parent's perspective, unsupportive responses may be an attempt to be protective to adolescents from being unrealistically optimistic, inadequately cautious, or neglectful of responsibilities, any of which a parent could envision having negative consequences. Nonetheless, such strategies may have the opposite effect on the adolescent who is excited about a positive experience. Such responses may also leave the adolescent feeling alone and misunderstood, which in turn can increase depressive symptoms (Katz et al., 2014). Moreover, as we mention above, a possible explanation for the non-significant association is

the low internal consistency find in the questionnaire about the variable *neglect* of overjoy. Future work using this strategy may provide a better understanding about this mediation.

Unexpectedly, for girls, we found no evidence that emotion dysregulation mediates the association between *punish*, *neglect*, and *override*, and internalizing symptoms. However, difficulties in emotion regulation were positively associated with internalizing symptoms. This result does not support our hypothesis and is not consistent with previous research with adolescents (Raval et al., 2019; Katz et al., 2014; Yap et al., 2008; Yi et al., 2016). In Raval et al. (2019) study, for example, unsupportive strategies and regulation are related to girls' depression. Parents who minimize, punish, or interfere with girls' positive emotions likely reduce the duration of this emotions for the girls, and by doing so, they may communicate that experience positive emotions is not desirable. Also, girls with difficulties in regulation positive emotions may have higher likelihood of depressive symptoms. This may have happened because mothers encourage their youths to express their emotions in a way consistent with preconceived social roles (e.g., Yap et al., 2008). For girls, positive affect would be important because they sustain the patterns of nurturance, affiliation, and responsibility for others, required for optimal caregiving and other interpersonal relationships. Indeed, it is possible that because girls express more their positive emotions, this may have a positive impact by decreasing emotion dysregulation and internalizing symptoms. Also, as mentioned above, this non-significant associations may be better understood if we consider cultural factors. Hence, mother's unsupportive strategies may be interpreted positively by girls because they may not associate it with negative maternal intentions or lack of emotional support. This perception may decrease emotion dysregulation and internalizing symptoms.

Lastly, with our result we can analyse some gender differences. The difference between boys and girls mediation models appears to be in the association between maternal response to overjoy and emotions dysregulation, that in the girls case are non-significant. This non-

significant associations with unsupportive strategies may be due to the fact that mothers have different preconceived social roles for boys and girls regarding the socialization of positive emotions, as mentioned above. Also, with the result from the *t-test*, it seems that boys report more maternal *punish* and *neglect* of overjoy than girls, which consistent with previous research (Garside & Klimes-Dougan, 2002). In contrast, girls report more emotion dysregulation and internalizing symptoms than boys, which is consistent with previous research with adolescents (Bai, & Repetti, 2018; Van Lissa et al., 2018). Unexpectedly, no gender differences emerged for externalization, which is not consistent with previous research (Bai, & Repetti, 2018). However, further research on this topic is needed.

A few limitations of this study should be noted. For example, we did not control for the impact of clinically significant symptoms (e.g., depressive symptoms) in this sample. It is possible that a prevalent percentage of clinically significant symptoms in the sample may distort the way these adolescents interpret their behaviours and their parent's behaviours and, consequently, our results. In future studies, researchers should consider establishing clinical symptoms as exclusion criterion for participants' selection or to include it as a research variable. Also, like this study, most research on emotion socialization focuses on one parent (usually mothers), however the role of fathers contribute in unique ways to the expression of positive emotions in adolescents, to emotion regulation, and to psychological adjustment (Van Lissa et al., 2018; Bai et al., 2015; Katz, et al., 2014). Therefore, the role of fathers in parental socialization demands further analyses. Furthermore, future research should also continue to examine parental socialization of positive emotions and youth adjustment, to increase the understanding about this topic.

In conclusion, this study provided evidence that difficulties in emotion regulation mediates the association between maternal responses and youths' negative outcomes. Also, the present work provided a better understanding of maternal socialization of positive emotions

(overjoy), with evidence of gender differences. For boys, we found that emotion dysregulation mediates the association between *punish* and *override* and externalizing and internalizing symptoms. For girls, emotion dysregulation did not mediate the association between maternal *punish*, *neglect*, and *override* of overjoy and externalizing and internalizing symptoms. Moreover, our findings show that gender differences may be, amongst other factors (e.g., culture), an important resource of influence, namely, in maternal responses to adolescent positive emotions, promoting different outcomes in terms of their future ability to regulate these emotions and overall psychological adjustment. Our findings also confirm that parental reactions to youth positive emotions have an important role as predictors of emotion regulation and psychological adjustment, adding to recent studies emphasizing the importance of positive emotion for adaptive and maladaptive development. The relevance of this study is also enhanced as it was conducted with adolescents and based on their perception. Although adolescents turn to peers for support, they seem to value parents joining them in sharing positive emotional moments and to dislike parental reactions that reject those emotional experiences. Our results advanced the understanding of maternal socialization of positive emotions during the developmental in adolescence, especially important to inform future universal and preventive interventions geared toward helping youth manage their positive emotions.

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