

UNIVERSIDADE DE LISBOA  
FACULDADE DE PSICOLOGIA



**MATERNAL EMOTION REGULATION, REACTIONS TO  
CHILDRENS' NEGATIVE EMOTIONS AND YOUTH'S  
ADJUSTMENT**

**Ana Isabel Bettencourt Pinto Nobre de Oliveira**

**MESTRADO INTEGRADO EM PSICOLOGIA**

**(Secção de Psicologia Clínica e da Saúde / Núcleo de Psicologia da Saúde e da  
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**Dissertação orientada pela Professora Doutora Ana Isabel Pereira**

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# **MATERNAL EMOTION REGULATION, REACTIONS TO CHILDRENS' NEGATIVE EMOTIONS AND YOUTH'S ADJUSTMENT**

## **ABSTRACT**

Parents that are able to adequately self-regulate emotions will be more capacitated to help their children regulate their emotions. These processes influence the socialization of child's emotions and have an undeniable influence on the child's emotional and social development. Parental emotion regulation also involves the ability to tolerate the child's negative emotions. When parents are unable to tolerate and be exposed to emotionally charged situations, they might try and change their form and frequency to avoid or reduce exposure. Parental Experiential Avoidance (parental EA) represents this inability.

The purpose of this study was to study the relationships between maternal emotion regulation, maternal reactions to child's negative emotions, and child's adjustment. Additionally, we intended to analyze gender and age group differences in regard to Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions.

The sample was composed by 247 portuguese mothers that filled out on-line two scales to evaluate their emotion regulation (EREP) and reactions to child's emotions (CCNES) and a questionnaire pertaining to their child's (3 to 15 years old) adjustment (SDQ).

Results, overall, supported the hypothesis. Maternal negative reactions/negative emotion regulation was positively statistically significant correlated to child's adjustment problems; and the maternal constructive reactions/positive emotion regulation was positively statistically significant correlated to child's positive adjustment. Negative and positive maternal emotion regulation dimensions were positively statistically significant correlated to, respectively, negative and constructive maternal reactions to child's negative emotions. The results also showed significant differences between girls and boys regarding Emotion-Focused Reactions, wherein mothers used it more on girls than on boys. Mothers used less Distress Reactions with pre-school children but more Emotion-Focused Reactions compared with elementary school children, pre-adolescents and

adolescents. Mother's used Minimization Reactions significantly less with pre-school children in comparison with other age groups. For Emotional Inaction, mothers presented significantly higher levels for adolescents than for pre-school children.

**Keywords:** maternal emotional regulation, maternal reactions, child's positive adjustment, child's adjustment problems, experiential avoidance

# **REGULAÇÃO EMOCIONAL MATERNAL, REAÇÕES ÀS EMOÇÕES NEGATIVAS DA CRIANÇA E AJUSTAMENTO DA JUVENTUDE**

## **RESUMO**

A autorregulação parental integra processos cognitivos, comportamentais e afetivos diferentes que, em conjunto, proporcionam aos pais a capacidade de planejar e antecipar, de regular emoções, de cooperar com outros, de avaliar resultados e remodelar ações. Mais concretamente, a capacidade de regulação emocional dos pais é muito importante para gerir as situações quotidianas de interação com os filhos, mas também para ajudar as crianças a regular as suas próprias emoções. Um pai que é capaz de se autorregular será capaz de adequadamente pôr em prática capacidades que se traduzam na resolução de problemas, estabelecimento de objetivos, implementação de mudanças comportamentais e agir, com o objetivo final de proporcionar um desenvolvimento positivo para os filhos.

A operacionalização adotada pelo presente estudo da regulação emocional parental inclui não só a capacidade dos pais regularem e expressarem as próprias emoções adequadamente, mas também a capacidade dos pais de serem atentos, reconhecerem e compreenderem as emoções da criança; e de aceitarem e tolerarem as emoções negativas reconhecendo o papel das emoções positivas e negativas na vida da criança e na parentalidade. Esta última dimensão é particularmente relevante, tendo em conta que capacidade de tolerar emoções é importante para uma adequada regulação emocional parental como o revelam os estudos mais recentes sobre o Evitamento Experiencial parental (EE parental).

As reações parentais à emocionalidade negativa das crianças são uma componente importante do processo de socialização das emoções da criança, que dependem da capacidade dos pais se regularem emocionalmente. Os resultados de estudos anteriores revelam que o ajustamento da criança é influenciado pelas reações parentais às suas emoções que podem ser tanto apoiantes como não-apoiantes, e que ditam o clima emocional familiar, causando impacto na forma como a criança encara a experiência emocional. De forma geral, as diversas reações parentais às emoções dos filhos podem em diferentes graus desenvolver uma sensação de segurança emocional, sentimentos positivos face às

relações sociais e uma regulação emocional adequada que se traduzem num ajustamento positivo geral.

O presente estudo teve como objetivo geral a compreensão da relação entre regulação emocional maternal, reações maternas às emoções negativas da criança, e o ajustamento da criança. Os objetivos mais específicos foram: 1) explorar a relação entre a regulação emocional maternal e as reações maternas às emoções negativas da criança, 2) analisar a relação entre estas duas dimensões parentais e o ajustamento da criança, 3) e analisar as diferenças entre géneros e grupos etários relativamente às dimensões parentais.

A amostra de estudo foi constituída por 247 mães portuguesas (idades entre 22 e 58) que preencheram on-line duas escalas relativas às suas reações à emocionalidade negativa das suas crianças (Reações Parentais às Emoções Negativas dos Filhos - CCNES) e à sua regulação emocional (Escala de Regulação Emocional Parental - EREP), e um questionário relativo à adaptação das suas crianças (Questionário de Capacidades e Dificuldades - SDQ). As crianças deste estudo tinham idades entre os 3 e 15 anos. Os dados deste estudo foram recolhidos no contexto de um projeto de investigação mais alargado “Projeto-P” desenvolvido por Barros, Pereira e Marques (2016) Apesar do estudo mais alargado prever a participação de pais e de mães, o estudo foi realizado apenas com mães, uma vez que os pais tiveram uma baixa adesão (n=25).

Os resultados do estudo apoiaram, maioritariamente, as hipóteses formuladas. As correlações positivas entre as escalas que refletem dificuldades na regulação emocional da mãe (EREP) e as reações negativas das mães às emoções da criança (CCNES) apoiam a ideia de que uma regulação parental positiva é importante para que os pais possam reagir de forma mais construtiva às emoções das crianças. Em relação às associações entre as duas dimensões parentais e o ajustamento das crianças, reações negativas da mãe às emoções negativas das crianças e regulação emocional negativa da mãe revelaram uma correlação positiva e estatisticamente significativa com os indicadores de problemas de ajustamento da criança e uma correlação negativa com os indicadores de ajustamento positivo da criança. Estes resultados, embora correlacionais corroboram a ideia geral de que a

regulação emocional dos pais e as reações parentais às emoções dos filhos têm um impacto no desenvolvimento emocional e social da criança. Em relação às diferenças de sexo da criança, apenas se encontrou uma diferença estatisticamente significativa entre mães de crianças do sexo feminino e mães do sexo masculino para as Reações Focadas nas Emoções, corroborando uma ideia de que, o sexo da criança instiga formas diferentes de socialização das emoções dos pais.

Quanto às diferenças entre grupos etários, as mães utilizaram menos Reações de Perturbação Emocional (*Distress*) com crianças em idade pré-escolar (3-5 anos) do que com crianças de idade escolar (6-9 anos) e pré-adolescentes (10-13 anos), e utilizaram mais Reações Focadas nas Emoções com crianças em idade pré-escolar (3-5 anos) do que com pré-adolescentes (10-13 anos) e adolescentes (14-15 anos). Adicionalmente, as mães utilizaram mais Reações de Minimização à medida que a idade da criança avançava, sendo que usaram significativamente menos com crianças em idade pré-escolar (3-5 anos) em comparação com os outros três grupos etários. Finalmente, para Inação Emocional, as mães apresentaram significativamente valores mais elevados para adolescentes (14-15 anos) do que para crianças em idade pré-escolar (3-5 anos).

No geral, os pais de crianças mais velhas apresentam menos Reações Focadas nas Emoções e mais Reações de Minimização por comparação aos pais de crianças mais novas, sendo isto consistente com a ideia que as capacidades das crianças de se autorregular emocionalmente melhoram ao longo do tempo fazendo com que os pais não tenham de intervir tanto. As diferenças para Inação Emocional mostraram-se consistentes com a ideia de que, em idades mais precoces (3-5 anos), os pais sabem reagir e intervir nas reações emocionais dos seus filhos. Esta capacidade varia ao longo do tempo sendo que na adolescência pode diminuir graças a questões de conflito muito comuns nesta fase que facilitam reações parentais inadequadas às situações de emocionalidade negativa dos adolescentes.

As limitações do estudo são identificadas e exploradas, e são apresentadas orientações para estudos futuros.



**Palavras-chave:** regulação emocional maternal, reações maternas, ajustamento positivo da criança, problemas de ajustamento da criança, evitamento experiencial

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## I. INTRODUCTION

As parents interact with their child, a series of processes take place to ensure that certain goals are achieved (e.g. to educate, to pass on ideas, to alert). These processes are cognitive processes (e.g. parental ideas or values), affective processes (e.g. emotions) and educational processes (e.g. parental behaviors) that are intrinsically and reciprocally connected, serving as a basis for parenting to take place. Emotions make up for big part of parenting as it's a time defined by the experience of a whole array of emotions, both by the parent and the child, with a fluctuating frequency and intensity.

Amongst many others, one's ability to self-regulate emotions predicts one's adjustment in various ways and areas. Context specific, an adequate parental regulation of emotions, elicited directly by or in response to the child, predicts the achievement of certain parental emotion-related goals. This parental ability also includes the regulation of the child's emotions, also predicting his/her adjustment in various ways and areas. The child's adjustment is a vital aspect to understand the direct and indirect overall influences of parent's emotion on their children, by providing predictive evidence of the relationship between parents' emotions and children's outcomes.

In this study we decided to focus on affective processes, more specifically, on parental (maternal) emotion regulation. Parental emotion regulation is one of the dimensions that are part of the parental socialization of child's emotions.

The literature review is divided in four sections. First, the affective processes are presented and explained, along with educational and cognitive processes, giving way to the clarification of the role of emotions in the parenting context. Second, parental self-regulation, emotion regulation and parental EA processes are explained so their underlying ideas and influences on parents and parenting can be understood. Thirdly, the importance of parents' reactions to the child's emotions is described followed by, fourthly, a review of the empirical studies that focused on relationships between parental reactions, emotion regulation and on the child's adjustment.

After we present our study goals that are based on the revised literature, we present our hypothesis. We then detail the procedure we followed and used to collect and analyze the data, describe and discuss our results, and their implications based on revised theory.

### **Parenting: behavioral, cognitive and affective processes**

Parenthood can be defined as time in the life of an adult where he/she has to care for a child of their own, achieving biological and social demands in the process. It can be defined as well, as a collection of parental-guided actions that are done in the presence of the child to promote their development in a holistic way, using either family or community resources (Cruz, 2005). As the nuclear family is the first context with which the child has direct physical and psychological contact, the parents' roles are to make sure that: the child's fundamental necessities are met; the child is in an organized and predictable setting; the child has help understanding the reality outside the family; the child's affective, trust and safety needs are met; and, the child has opportunities to engage with the world (Cruz, 2005).

Evidently, there is an influence of parenting on the child's outcomes. It's agreed that parents follow a certain parenting style that has its own goals. Most descriptive studies related to parental educational patterns have assessed parenting behaviors through different dimensions (e.g. control, warmth, acceptance, rejection) that are translated into behaviors or actions with different goals. The consistency of these behaviors would then make it possible to study parent's individual characteristics along certain variables that make up for different parenting dimensions (e.g. hostility/coldness, acceptance/rejection, responsiveness and sensitivity, parental control, the use of reinforcements or punishments), used them in various studies (Cruz, 2005), and label the observed parenting pattern. This can be done via direct observation, interviews, questionnaires and parental self-reports. Highlighting the famous results from Baumrind's (1967) first study, three child functioning patterns resulting from three distinctive parenting styles that varied along four parenting dimensions (i.e.: parental control in the sense of guidance towards certain goals, inhibition of dependent, aggressive and childish behaviors and internalization of parental standards; intellectual, emotional and social

demands of parents, clearness in communication to obtain compliance and solicit child's opinions and feelings; and, parental nurturance that refers to parental acts and attitudes that express affect towards the child in various ways and areas) were observed. Authoritative parents presented high but balanced levels of control, communication, demands and nurturance, i.e., they communicated clearly, they were more consistent and loving in taking care of their child, allowing them to make their own decisions however, taking a stance when needed. Authoritarian parents presented high levels of control but lower levels for communication, and nurturance, i.e., in comparison to the first one, they exercised more control, were less nurturing, involved and offered little affection and were less likely to utilize adequate communication and to encourage expression. Permissive parents presented high levels of nurturance but lower levels for control, communication and demands and they were overall less involved with their child.

What remains as a main practical concern is that, although different parental typologies influence children's outcomes (as we can read in the first results of Baumrind's, 1967, pertaining to the children's functioning pattern according to their parents' style), the processes behind these relationships are not specified, and so there is a need to specify the dimensions and strategies behind them. Parents' educational behaviors are mostly the focus of research regarding parenting and its association with child's outcomes, leaving cognitive and affective processes relatively unexplored. Educational, cognitive and affective parental processes are all intrinsically connected and cannot be considered independent from each other (Cruz, 2005).

What makes up for parental cognitive processes are their values, attitudes, expectancies, attributions, evolutive calendars, inferences, goals, perceptions, knowledge and preferences that help organize everyday life and allow them to efficiently get through it without unnecessary burdens and information overload (Cruz, 2005). The establishment of the major ideas underlying parental goals has resulted in many theoretical conceptualizations, however, it's agreed upon that the child's positive physical, behavioral, cognitive, moral, emotional, social and educational development is the overall goal that parents strive for through their parenting.

These parental ideas are based on personal experience and rooted on sociocultural demands, but can also be affected by the child's individual and personal characteristics (e.g. gender and age expectancies, temperament); the parents' characteristics (intellectual level, personality, age, gender and spousal relationship); family structure (e.g. more than one child; order of birth); culture and economical class. The notion that these individual ideas are stable through time depends: on whether they are constructed based on the parent's experience and direct observation; the change associated with the child's development; on whether or not they are prone to trial and error; and whether they are product of cultural heritage where these ideas are taken as general practices and are confirmed on a daily basis.

Studies regarding the influences of parental cognitions focus more on the child's intellectual and educational domains, where ideas foster different parental attitudes, practices and expectancies towards the child's academic setting, than on the child's development domains (Cruz, 2005). However, the parental ideas that are used towards the child's academic setting, also mediate the parent's perception of both the child's behavior and their own in an automatic and unconscious way, much like stable cognitive structures (Goodnow, 1985). These parental ideas can influence: what parents expect of their child (knowledge of child development), the way they view their child (the child's competence), and their actions (encourage, intervene or withdraw) in social matters. They can also be predictors of the child's social skills in the long-term (Benasich & Brooks-Gunn, 1996; Cruz, 2005).

Parents usually can articulate and explain their choices of parental actions, albeit sometimes these actions are an automated response free of conscious appraisal. Through the analysis of parental cognitions, we can improve our understanding of the way parents act, feel and respond towards their child, and the way they relate to the social context they are in (Goodnow, 1985).

The affective processes are present in every interaction, especially in the parent-child dyad and especially in the negative or positively emotionally charged family situations. A positive parental affect reflects a positive family climate and predicts a healthy child development, while a hostile

parental affect and climates don't (Cruz, 2005). As stated by Darling and Steinberg (1993), parenting styles set the emotional and attitudinal climate, and are viewed as the context in which concrete parenting practices and behaviors occur. This would mean that the same parental practices (e.g. physical punishment) would be influenced by and interpreted in different ways consistent with the family environment (e.g. positive). Parental educational styles are molar constructs that can't go without including affective processes for they are intrinsically intertwined with parental cognitions and behaviors that mediate parenting as well (Cruz, 2005). So understanding the role of affective processes in parenting is important.

The concept of affect is the reflection of parents' ideas and behaviors on their feelings towards their child (Cruz, 2005). These positive or negative reactions to the child's behavior depend on the adequateness of said behavior imposed by social standards and personal experience. The notion that parental ideas precede parental emotions is compared to its opposite where emotions precede ideas (Cruz, 2005). When we assume that affective processes are primary to cognitions we are implying that the individuals' humor (in this case, the parent's) is a basic structure on which reality can be perceived. A dominant emotional state (e.g. anger or, in an extreme case, depression) can interfere with other cognitive processes setting a specific way of working in comparison to other emotional states (e.g. happiness or anxiety). This would support a mediational model of affect wherein affective processes will be as adequate as the underlying mood state allows them to.

#### *Dix's parenting model: the role of emotions*

Dix (1991) proposed a three-component model of parenting wherein he integrates parental emotions, cognitions and behaviors but places emotion as the main factor for parental competency. Emotions are adaptive, regulate human behavior, identify events of significance and mobilize adaptive responses to them. The model also assumes the empathic nature of affective processes for the main parental goals are always minding the child's development and well-being. For that to occur, parental emotions must be organized to promote and facilitate parenting and benefit the child. In terms of emotional activation, "parents' emotions are activated when outcomes occur that are relevant

to significant concerns they have in an interaction” (Dix, 1991, p.6). I.e., emotion activation needs to be prominent to induce child-centered goal-oriented behaviors.

The model considers three processes: processes of activation, processes of engagement and processes of regulation. Briefly explained, *processes of activation* dictate when, which and how strongly the emotion will occur. “Parents' emotions depend on the concerns they are trying to promote, their appraisals of whether and why those concerns are being promoted or frustrated, and their appraisals of the options and resources available to ensure that their concerns are promoted” (Dix, 1991, p.5). Cognition determines emotions because some events require an appraisal of their benefit (i.e. elicits positive emotions) or harm (i.e. elicits negative emotions) according to the goals, obstacles, resources and support that are perceived by the parents. *Processes of engagement* occur after the emotion is activated, and are oriented towards the environment in an adaptive way. The individual is then prepared to assess the event (cognitive), to seek reasons to achieve outcomes (motivational), to communicate others their current state (behavioral), and prepare any response that might be needed. This engagement depends on how strongly and which emotion is elicited. In the parental context, this activation is important otherwise there is no parental involvement. However, if there is negative activation, the engagement processes will be hindered for the intense negative emotions can interfere during the cognitive appraisal, hinder emotional regulation and induce motives to reduce negative emotion which may not be compatible with the needs and goals of the child. *Processes of regulation* help to understand and control the expression of emotions because it is possible to rationalize why they happen, how others react to it and what can be done to inhibit or express what is undesirable or desirable.

### **Self- regulation, emotion regulation and experiential avoidance in the parenting context**

#### *Parental Self-Regulation*

Parental self-regulation is important for a successful adaptation to the world of parenting, because it influences the parents' ability to decide how to raise their child, their ability to recognize the need to change their behavior in accordance with the child's needs, and their ability to increase the



flexibility of their behavioral repertoire according to theirs or societies' demands (Baumeister & Vohs, 2007; Sanders & Mazzuchelli, 2013). This is a process alongside parental adaptation. To achieve parental adaptation, parents have to know how to interpret their child's behavior adequately while still facing challenges from their adult life, especially at times where there are extra demands from the child or the familial context (Barros, Goes and Pereira, 2015; Sanders & Mazzuchelli, 2013). The capacity to self-regulate in itself depends on factors that either boost (e.g. positive life aspects such as job, income, good health and relationships) or hinder (e.g. social problems, psychopathology) the regulation process.

Self-regulation involves “modulation of thought, affect, behavior or attention, via deliberate or automated use of specific mechanisms and supportive metaskills” (Karoly, 1993, p. 25). This means that an interaction of cognitive, behavioral and affective processes are involved in the ability to plan and anticipate, to regulate emotions, to cooperate with others, to evaluate results and remodel actions. Self-regulation is important in the parental context for it requires goal organization and planning, problem-solving and monitoring (Barros, Goes e Pereira, 2015).

Parents with a strong self-regulatory capacity will be effectively able to: parent with minimal support; know how to use their problems-solving skills, set goals, reflect and evaluate, select and implement change strategies with and for their children; believe in their abilities to influence their and their child's behavior and take action; and believe in their abilities to implement behavioral change strategies with a positive outcome (Sanders & Mazzuchelli, 2013). On the other hand, parents with deficits in their self-regulation: are incapable of using their self-management skills; have difficulty setting goals for them and their children, and find it hard to reflect on and evaluate their interactions with them; have a low sense of efficacy, and don't believe they can implement strategies with a good outcome; attribute their child's problems to uncontrollable and external factors and so don't take action; and have a tendency to look for other's help because of their low self-sufficiency (Sanders & Mazzuchelli, 2013).

### *Parental emotion regulation*

Emotion regulation is composed of a variety of processes that influence which emotions the individual has, when he has them and how he experiences and expresses those emotions (Gross, 1998).

Parents might experience an array of intense emotions elicited by their child's problems, and when attempting to achieve their goals. In these situations, a self-regulated parent should be able to accept his/her emotions, i.e., be able to use regulation strategies to either express them adequately, or ignore or down-regulate them if necessary (Sanders & Mazzucchelli, 2013; Barros, Goes and Pereira, 2015), beyond helping regulate their child's emotions as well. Processes of emotion-regulation are sub-process of self-regulation because, when an individual engages in self-regulation due to the emotionally arousing situation, the regulation of emotions is necessary beyond and concomitant to the change of behavior.

This process of emotion regulation can be either automatic or conscious, and their effect can be seen in more than one point during the whole emotion generation process. Gross's (1998) process model of emotion regulation outlines the whole process in five categories that are specific to each of the process's phases: situation selection, situation modification, attention deployment, cognitive change (antecedent –focused strategies), and response modulation (response –focused strategies).

As explained in Gross (1998) and minding the parent context as an example: *Situation selection* refers to choosing to approach or avoid people, places and objects, so as to regulate emotions that the person knows that can and will be elicited by those situations. The individuals base their decision on the short-term benefits/costs and the long-term benefits/costs of the approach/avoidance. *Situation modification* refers to active efforts from the person to directly modify the situation and alter its emotional impact. Changing the situation is either a direct result of the emotion regulation process (i.e. direct management of such situation), or an indirect result of emotional expression (e.g. someone else changes the subject to avoid the other person feeling sad). *Attentional deployment* is a regulatory process in which strategies are used to shift the attentional focus, such as: *distraction* (i.e. shifting

attention from the emotion evoking stimulus, changing internal focus from vague to concrete goals, thought inhibition, memory and thought invocation inconsistent with the undesirable emotional state), *rumination* (i.e. attention directed to either positive or negative feelings and their consequences) and *concentration* (i.e. similar to an “internal” situation selection based on approach). *Cognitive change* is used to modify the cognitive steps that are followed so one can evaluate one’s ability to cope with the situation. It includes strategies such as denial, isolation, intellectualization, over positivity, social comparison (e.g. with someone less fortunate), cognitive reframing (e.g. experiencing failure and reframing it as success or dismissing it, regarding another goal), reappraisal (cognitively transforming the situation in order to alter its emotional impact). *Response modulation* occurs later in the emotion generative process after response tendencies have been initiated, and it’s an attempt to regulate the physiological, behavioral and experiential aspects of emotion. Medication, exercise, biofeedback (knowing how the body is reacting), relaxation, sexual intercourse, physical aggression, food, alcohol, cigarettes, illicit drugs are commonly used to modify the overall emotion experience.

Emotion regulation processes can be seen as a way to make things better or worse, however the outcome depends on whether or not its regulation is appropriate or adequate in its context of use, e.g. distracting to avoid feeling pain while at the dentist, or distracting to avoid feeling sad when someone close dies (Gross & Thompson, 2007). In the second example, the person’s goals are achieved but it might be maladaptive not going through the experience of grief process. In other words: “it is not the emotional response per se that is adaptive or maladaptive but the response in its immediate context” (Gross & Thompson, 2007, p. 15).

Individual differences in the capacity of regulating emotions are something to consider across the diverse contexts an individual can encounter (Gross & Thompson, 2007). This means that, when an individual uses the aforementioned strategies in a way that does not permit a wise emotion regulation or a controlled but healthy expression, we might be looking at a maladaptive emotion regulation that could then result in long term damages to the self from its constant practice (e.g. it may contribute to the development of a mental disorder), and long term damage to others.

The goals of emotion regulation can be context and emotion dependent, and vary along the life span, like when the individual becomes a parent (Gross, 1998). These emotion regulation strategies in the parenting context can have an influence on the development of the child's own self (and emotional)-regulation. This can happen through the child's observation and modeling of the parents' strategies to regulate their own emotions, but also through the effects of the emotional climate in the family where the interactions take place (Morris, Silk, Steinberg, Myers and Robinson, 2007).

Through observation, the child learns from the parents which emotions are accepted and expected and how they should manage them (Morris et al., 2007). Therefore, children are less likely to learn adaptive and adequate ways to regulate their emotion through modeling if parents are inadequate in their self-regulation. For example, certain emotional disorders (e.g. anxiety, depression) reshape the emotion regulation process and, therefore, the overall experience related to both positive and negative emotions. These regulation deficits are a primary concern during treatment, for they are factors in the maintenance of emotional disorders (Carl, Soskin, Kerns and Barlow, 2013). In cases like these, clinical maladaptive emotional regulation is taking place. However maladaptive emotional regulation doesn't necessarily have to occur in the presence of a mental disorder and can happen in an apparent "healthy" individual.

The family's emotional climate (Morris et al., 2007), influenced by different factors (including emotional predictability and stability, quality of the relationships in parent-child dyads and marital relationship, and the amount of positive and negative emotions displayed), impacts the comfort and security the child feels with the emotion experience. The family's positive stance and reaction to the emotion experience is related e.g., to a better understanding of emotions and a better competence of the child at regulating them. On the other hand, if the family reacts negatively, punitively or dismissingly towards the child's emotion experience (especially the negative ones), the child e.g., will learn to avoid and not embrace, express and understand negative emotions. Additionally, it is important to consider that the child's emotional regulation and the familial influences have a bidirectional relationship.

### *Parental Experiential Avoidance*

The adequacy of emotion regulation strategies depends mostly on their context, their goal, and their frequency of use (Gross & Thompson, 2007). Flexibility in the use of different strategies is what also constitutes as adequate emotional regulation.

*Experiential avoidance* (EA) (Hayes & Gifford, 1997) refers to an inability or unwillingness to being exposed to aversive or anxious situations, because of the incapacity to tolerate the negative emotional experience and internal distress that comes with those situations. Therefore, the individual acts in order to change the form or frequency of these experiences and situations, even when these actions can cause them behavioral harm. This is a pervasive and maladaptive emotion regulation because this avoidant coping will have a negative outcome (Hayes & Gifford, 1997). Avoidant strategies (behavioral or cognitive) might be used to regulate emotion relatively benignly depending on the context (e.g. distracting oneself when bored in a conversation, not going to a party when feeling anxious) especially when its consequences dispend little energy for its short time use, or when controlling negative emotions is done to improve one's life in a meaningful way and according with one's goals (Kashdan, Barrios, Forsyth and Steger, 2005).

However, when applied constantly, rigidly and inflexibly, EA will actually end up as self-amplifying behavioral cycle (Hayes and Gifford, 1997; Kashdan et al. 2005). Psychological, social and even physical effects of EA become more evident as more and more resources are needed to avoid emotional experiences. Also, private experiences become ever increasingly linked to pathological avoidance and not with information about the context that elicited those experiences (Hayes & Gifford, 1997). This in turn, reduces the access to information needed to make an adequate behavioral decision.

Kashdan's et al. (2005) study suggests that individuals who chronically avoid emotions and suppress them experience less hedonic functioning in their lives because of their failure in accepting the undesirable nature of inner experiences, their unwillingness to be in contact with those experiences, and because of their constant effort to alter the frequency or the factors that elicited those

inner experiences. According to Wolgast, Lundh and Viborg (2013), EA is not a strategy of emotional regulation but rather an emotion regulatory function of several strategies. This means that, even if the several emotion regulation strategies (detailed before) have distinct features, they all have the same ultimate goal: to avoid or reduce the expression of (negative) emotions. Escaping from stressful and aversive situations and related emotions; inhibiting the emotional experience; and increasing the sense of external control over the events, constitute processes of EA (Kashdan et al. 2005).

Woodruff-Borden, Morrow, Bourland, and Cambron, (2002) noticed how anxious parents chose to withdraw and disengage from tasks with their children because they felt the need to allocate their resources in managing their own anxiety, not leaving much left to assist with the child's emotions. This was the golden rule until the child expressed negative affect for having been left in a potentially anxious situation, at which point the parent would exert overcontrolling behaviors. This pattern of behavior would suggest that: initially, the parent would become uncomfortable with the child's expression of negative affect and would not be able to tolerate the related emotions, so he/she would withdraw; after the child clearly expressed negative affect, the parent would then exert control to diminish the negative affect. In other words, the parent, choosing to avoid lingering and experience the situation, would end up not teaching the child adaptive resources in managing their distress or the situation, and the child was left alone to manage its own distress. Here, the use of situation selection (i.e. choosing to not "be" in the situation) and situation modification (i.e. exerting control over the child) can be observed, but both regulated by EA (i.e. goal is to avoid or reduce the expression of negative emotions).

Another study done with parents of children with and without anxiety disorders is that of Suveg, Sood, Hudson and Kendall (2008), where they studied emotion socialization practices through behavioral observation. Parents were invited to openly discuss with their child for five minutes about the last time their child (8 to 13 years old) felt anxious, angry and happy. They hypothesized that, comparatively to parents of non-anxious youth, parents of anxious youth would overall be more avoidant in a sense that they: would use a fewer number of words while discussing; would discourage the discussion of emotions by their children; would engage in less explanatory discussion of

emotions; and would exhibit more negative affect and less positive affect. Results showed that parents of children with an anxiety disorder would overall engage in less explanatory discussion of emotions (i.e., time spent discussing the causes and consequences of emotions), were more likely to discourage emotion discussion (angry scenarios) and showed less positive affect (i.e. more negative affect) when interacting with their sons specifically. This last finding is one that relates to the different expectancies of emotion functioning for each gender.

Discussion of emotion is part of the parental emotion-related socialization behaviors, and these are linked to the child's outcomes in what concerns emotion regulation and understanding (Eisenberg, Cumberland and Spinrad, 1998). Parents' unwillingness to express openly or discuss about emotions does not pave the way for the child to learn adaptive ways to regulate and express emotions but instead, because of the reliance on less adaptive strategies, prolong the child's anxiety or make them more prone to develop anxiety (Suveg et al., 2008).

### **Parent's reactions to child's emotions**

Apart from the self-regulating emotion process (to be able to successfully adapt to the world of parenting), there is the need to react adequately to the child's experience of both positive and negative emotions. This is part of the parents' *socialization of child's emotions*, which has an overall effect on children's understanding, experience and expression of emotion.

As part of everyday life, children express a wide range of facial, behavioral and verbal emotions, and the parent's reaction to those emotions, especially negative ones, pose as great opportunities for emotion socialization to take place (Eisenberg et al., 1998). The way parents react to negative emotions can either help and comfort the child during that experience, or be perceived as unsupportive. Socialization of emotions influences the development of both emotional and social competence in the short and long term.

Emotional and social competence both relate to and influence one another and reflect "understanding of one's own and other's emotions, the tendency to display emotion in a situationally and culturally appropriate manner, and the ability to inhibit or modulate experienced and expressed

emotion and emotionally derived behavior as needed to achieve goals in a socially acceptable manner” (Eisenberg et al., 1998, p. 242). This means that the benefits of socialization depend on the context and culture in which they occur, because different parental socialization behaviors have different underlying beliefs and goals and promote emotional and social competence differently (Eisenberg et al., 1998).

*Parental reactions* to child’s emotions are one of the parental emotion-related socialization behaviors, alongside discussion of emotions and emotional expressiveness, which are influenced by child, parental, cultural and context characteristics as well as other familial factors (Shaffer, Suveg, Thomassin and Bradbury, 2012). Overall, these behaviors (positive or negative reactions) in context affect the child’s level of arousal and have positive or negative emotion related outcomes (that are also mediated by the child’s arousal)<sup>1</sup>: experience of emotion; spontaneous expression of emotion; regulation of emotion and emotion-related behaviors; acquisition of regulation capacities; understanding of relevant emotions and regulatory processes; affective attitude towards emotions and expression of emotions; quality of the child’s relationships with the socializing agent (e.g. parent) at that moment and in the long term; and schemas about the self, relationships and the social world.

It’s assumed that the child’s social competence (e.g. expressed behavior due to emotional arousal) is affected by these various emotion related outcomes of parental emotion-related socialization behaviors, and reciprocally influences future interactions (Eisenberg et al., 1998).

### **Parent’s emotion regulation and child’s adaptation**

As Dix’s (1991) model proposes earlier, emotion is the main factor in parental competency, and some studies (detailed in Bariola, Gullone and Hughes, 2011) have observed and concluded that parents’ emotional expression moderated the child’s regulation and expression, in a way that parents that excessively<sup>2</sup> expressed negative emotions had children with poorer emotion regulation skills.

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<sup>1</sup>As detailed in Figure 1, page 243, Eisenberg et al., 1998

<sup>2</sup>E.g.: a moderate degree of negative expression within the family may pose as an optimal environment for children to learn effective coping and regulatory skills (Halberstadt et al, 1995 In Bariola et al., 2011)



However, very few studies have examined the relationship between parental emotional regulation and child emotion regulation (Bariola et al., 2011).

In a broad perspective, when parents fail to regulate their emotions elicited by their child's negative emotions, it can have both short and long term consequences for the child's adjustment. Children who are supported by their parents throughout their emotional experience (especially with negative emotions) have a better sense of emotional security and positive feelings towards social relationships followed by an adequate and constructive regulation of their emotions and behavior. Contrary to unsupportive parental reactions to negative emotions (e.g. anxiety, fear and sadness) that in turn reduce that sense of emotional security, and hinder an adequate emotion regulation in emotionally charged situations (Eisenberg, Fabes, and Murphy, 1996).

So, in general, unsupportive parental reactions to children's emotions - punitive reactions (to reduce the parents exposure or need to deal with the child's emotions), minimizing reactions (minimizes or devalue the seriousness of the situation) and distress reactions (when the child exhibits negative affect) - have a positive association with low levels of social and emotional competence and its outcomes might vary according to some of the child's characteristics (i.e., gender, age, temperament, individual differences). And understandably, supportive parental reactions - expressive encouragement (of emotions), emotion-focused reactions (comforting behaviors) and problem-focused reactions (teaching instrumental ways to deal with emotions) - help the child develop abilities to deal with theirs and other's emotions and behaviors constructively and adequately, by providing help and information on how to do so during present negative emotion-provoking situations (Eisenberg et al., 1998; Jones, Eisenberg, Fabes and MacKinnon, 2002; Shaffer et al., 2012).

Worthy of mentioning is that associations between supportive parental reactions and children's experience and expression of emotion have been proven to be inconsistent, but its reasons not studied. On the other hand, associations between supportive parental reactions and children's competence are more consistent (Jones et al., 2002). Encouragement of expression of emotions and comforting behaviors (i.e. emotion-focused reactions) are associated with a positive socioemotional development,

however, it depends on the frequency of use of encouragement, at what developmental level it's done, and whether the expression of the emotion is socially acceptable or not (e.g. anger, aggression). It has been found that high levels of these strategies can be associated with the child's lack of opportunities to develop efficient ways to cope with negative emotions, and promote social and emotional competence (Eisenberg et al., 1996; Jones et al., 2002).

A study by Eisenberg, Fabes, and Murphy (1996) examined the relationship between parental emotional-related reactions to children's social competence and prosocial behaviors. The study's sample was composed by children of third to sixth grades (approximately 9 to 15 years old) and their parents. As hypothesized, they found that mothers' problem-focused reactions were associated with the child's positive adjustment (reported by the mothers, teachers, and the child themselves) with correlations being stronger for girls (a different finding from the later Jones et al., 2002 study), and that maternal minimizing reactions were linked to lower levels of child social competence and avoidant coping. It was also found that moderate levels of reported maternal expressive encouragement were associated with the observed quality of comforting behaviors in girls<sup>3</sup>, whereas reported supportive and problem-focused maternal reactions were associated with the quality of comforting behaviors in boys. The findings in this study, albeit correlational, support the premise that mothers play a role in developing children's social and emotional development by helping them emotionally self-regulate and cope with stressors. An interesting finding was that fathers were found to use fewer problem-focused reactions with daughters that were perceived as socially competent meaning that, fathers would probably use more problem-focused reaction if their daughters had more social difficulties<sup>4</sup>.

Another study, by Jones et al. (2002), assessed the relationship between parent reported parental practices and children's observed and teacher reported expression of social and emotional competence in elementary school. The specific goal was to examine the relationship between parents'

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<sup>3</sup> In this study, comforting behaviors were the observed behaviors that the child directed to a crying infant through a hand-held nursery monitor

<sup>4</sup> Although, findings were weak and indicated relatively little relationship between paternal reactions to children's negative emotion and children's social functioning

reactions to child's negative emotions and child's social and emotional competence in school (first to fourth graders, ages 6 to 10 years old), along with examining the moderating role of children's dispositional emotionality in this relationship (i.e. proneness to frequent or intense negative emotions). They focused on two unsupportive parental reactions (parenting punitive reactions and minimizing of children's negative emotion) and three supportive reactions (parents' emotion-focused [comforting] reactions, problem-focused [problem-solving] reactions, and encouragement of the child's expression of emotion) to children's negative emotions.

The results showed that, when children were easily reactive to emotional stimuli (especially negative stimuli), high and average levels of supportive parental strategies, such as comforting behaviors (i.e. emotion-focused reactions), would not be efficient as children are expected to learn to cope and manage stress and negative emotions by themselves, and won't be able to do so if parents do it "for them". Additionally, and as expected, negative parental reactions (punitive/minimization-reactions) were associated with a low socioemotional competence. Another interesting finding in this study is that supportive parental reactions (problem-focused reactions) were positively associated with boys' socioemotional competence but negatively with girls. The authors posed that this result could be due to a "child-instigated pattern of causality", wherein only girls with a low social and emotional competence would benefit from learning problem solving skills and so, instigate problem-focused reactions from their parents.

This latter result, along with the interesting result in the Eisenberg et al. (1996) study, furthers the notion that the gender of the child is presumed to have some influence over the type of reactions they elicit from parents and, therefore, what coping strategies they teach them. This is also mostly grounded on social expectancies of emotional expression that parents and society have for both genders (Chaplin & Aldao, 2012).

In a meta-analytic review done by Chaplin & Aldao (2012), results showed differences in regard to gender, which varied in magnitude when accounting for contextual differences such as age, interpersonal context (i.e. child's emotion expression according to with whom the child is) and task

type (in which the child is observed). Girls showed more positive emotions than boys in middle childhood and adolescence, and more internalizing emotions (e.g. sadness and anxiety). Boys showed more externalizing (e.g. anger) emotions than girls at toddler/preschool age and middle childhood and fewer externalizing emotions than girls in adolescence. These gender-related behaviors could be one the reasons parents teach their children different coping strategies, aside from themselves having different parental socialization behaviors for each gender.

A well, the child's cognitive level, along with their age, influences parental beliefs and practices across time as parents engage with the child differently according to their maturational level, their needs and abilities, and according to what the parents consider an adequate expression or not at a certain age (Stettler & Katz, 2014). This makes the child's age a likely contributor to the development of their own adjustment (Jones et al., 2002).

In the Eisenberg, Fabes, Shepard, Guthrie, Murphy and Reiser (1999) longitudinal study with children with ages 6 to 12 years old and their parents, the hypothesis was that self-reported parental reactions to children's negative emotions would decrease with age until middle childhood and then increase as children moved through early-adolescence. This would be consistent with the notion that, parental negative reactions (i.e. unsupportive reactions- Distress, Punitive and Minimization Reaction) would become less frequent as the child matures and becomes more regulated throughout middle childhood, and there is "no need" for such reactions. However, parental negative reactions would then increase as a response due to the high expectations regarding the self-regulation abilities of the pre-adolescent. Results partially supported the hypothesis regarding the quadratic effect (i.e. decrease then increase) of parental unsupportive reactions along with the child's age. Minimization and punitive reactions revealed a decrease as the child grew older into early-adolescence (6 to 12), although punitive reactions increased from young age to school age (4 to 8 years old). Parental distress reactions showed an increased with age.

Important to highlight from the study by Stettler & Katz (2014) study, and being that we also focus on these constructs, is that parental awareness, acceptance and coaching were viewed as part of

the parents' meta-emotion philosophy. Parental awareness refers to degree to which parents notice and distinguish the emotion from others, and describe and display insight into the child's experience of the emotion (i.e. knowing the cause of the emotion, answering questions about the child's experience). Parental acceptance of child's emotions reflects parents' encouragement of emotions, the degree to which parents empathize with their child's emotion, and do not punish or distract their child when they express a negative emotion (similar to Encouragement Reactions in our study). Coaching of child's emotion relates to parents' ability to discuss feelings with their children, the degree to which parents are involved directly or indirectly in the child's experience, know how to deal with the emotion, teach the child strategies for self-soothing, and are available to discuss emotions (similar to Problem-Focused Reactions).

Stettler & Katz (2014) study showed that parents' coaching of children's negative emotions<sup>5</sup> increased from 5 to 11 years, and this would be consistent with the notion that parents' ameliorate their ability to engage in more complex conversations and problem-solving due to their children's ever increasing cognitive abilities. Parents' awareness and acceptance of children's negative emotions decreased between 5 and 9 years but increased overall between 5 and 11 years. This last pattern would be compatible with the idea that children tend to show fewer emotions to their parents as they grow older, but then in adolescence go through a period where it's generally accepted that emotions are running high and are easily expressed.

To greatly summarize, children will learn regulation strategies with and from their parents. If the parents have a deficient emotion regulation themselves, it affects parenting behaviors such as socialization of emotions that have a massive influence on the child and their ability to regulate emotions, and this can contribute to poor developmental outcomes in the long-term.

## **II. STUDY'S OBJECTIVES AND HYPOTHESIS**

In the present study parental emotion regulation is operationalized through a measure that includes four different dimensions: Awareness of child's emotion (parents' acknowledgment of the

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<sup>5</sup> Sadness, anger, and fear

child's emotion that consists in the parents' capacity to be attentive, recognizing and understanding of the child's emotions; similar to Stettler & Katz's, 2014 study); Acceptance of child's emotions (the parents' capacity to accept, tolerate the child's negative emotions and overall reflects the parents ability to recognize the role of positive and negative emotions in the child's life, and their inevitable emotional influence on parenthood); Avoidance of child's emotions (negative attitudes/beliefs concerning the child's negative emotions and or avoidance the child's negative emotions); and Emotional Inaction (degree of parents' difficulty to engage in goal-directed behavior when experiencing both their own and their child's negative emotions, includes child-parent emotional contamination and lack of self-efficacy in highly emotional loaded situations).

This definition of emotion regulation, considers theory and evidence about experiential avoidance in the emotion regulations process, for parental unacceptance of the adaptability and role of the child's negative emotions reflects parents' inability and unwillingness to be exposed to negative emotions or situations that elicit negative emotions.

In this study we operationalize parental coping or parental reactions the same way as described and conceptualized by Eisenberg, et al., (1996) and Eisenberg et al., (1998). Child's adjustment is operationalized through measures of prosocial behaviors (positive adjustment viewed e.g. as helping, caring for others, and being sensitive to others' problems) and of internalization and externalization problems (adjustment problems viewed e.g. as being very easily sad/angry lots of times, difficulty in obeying).

Due to the scarcity of research that analyzes the relationship between parental emotion regulation and children's adaptation or social and emotional competence (Eisenberg, et al., 1996; Jones et al., 2002), it is important to dwell further on this matter. Another reason is that, because of inconsistent findings regarding parental reactions to children's negative emotion in what relates to supportive reactions (Jones et al. 2002), it's important to try to understand if this is a global and replicable result, or depends on methodological aspects of the study.

The fact of using psychopathological dimensions to measure children's adjustment problems is innovative as most studies operationalize children's adjustment mainly with direct measures of positive social and emotional competence (with exception from e.g. Eisenberg et al., 1999).

The following study goals were formulated to reflect these theoretical and practical needs.

- Analyze the relationship between Mothers' Emotion Regulation and Child's adjustment
- Analyze the relationship between Mothers' Coping with Children's Negative Emotions and Child's Adjustment
- Analyze the relationship between Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions

Other goals to further understand these correlations are to:

- Analyze gender differences in regard to the Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions
- Analyze age group differences in regard to the Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions

Grounding on the revised literature and empirical evidence, the following hypotheses for each study goal are formulated:

- H1. Mothers' positive emotion regulation dimensions (Awareness and Acceptance of child's emotions) will be positively related to children's positive adjustment (Prosocial behavior) while mothers' negative emotion regulation (Emotional Inaction and Avoidance of child's emotions) will be positively related to children's adjustment problems (Internalization and Externalization behaviors).
- H2. Mothers' constructive coping with children's negative emotions (Encouragement of Expression, Problem and Emotion- Focused Reactions) will be positively related to children's positive adjustment (Prosocial behavior), whereas mothers' negative coping with children's

negative emotions (Minimization, Punitive and Distress reactions) will be positively related to children's adjustment problems (Internalization and Externalization behaviors).

- H3. Mothers' positive coping with children's negative emotions (Encouragement of Expression, Problem and Emotion- Focused Reactions) will be positively related to mothers' positive dimensions of emotion regulation (Awareness and Acceptance of child's emotions). Mothers' negative coping with children's negative emotions (Minimization, Punitive and Distress reactions) will be positively related to mothers' negative dimensions of emotion regulation (Emotional Inaction and Avoidance of child's emotions).
- H4. In respect to the child's gender (basing on results from Eisenberg et al., 1996), certain parental reaction are more common for girls than boys. For example, mothers' Expressive Encouragement and Emotion-Focused Reactions might be more used on girls; while Punitive and Minimization Reactions would be more used on boys.
- H5. Regarding child's age, parental negative reactions (i.e. Distress, Punitive and Minimizations Reactions) to child's negative emotions will tend to decrease until middle childhood and then increase with child's age (same as hypothesized in Eisenberg et al, 1999). Parental awareness of children's negative emotions will increase with age according to results from Stettler and Katz(2014).

### **III. METHOD**

#### *Participants*

The sample was composed by 274 participants who were the mothers of 144 boys and 130 girls. The children and adolescents had a mean age of 8.67 with a range of 3 to 15 years old. About 70% of the children in the study were the first child, and more than half had at least one sibling.

Mothers' age range was of 22 to 58 years old with a mean age of 39.46. 78% of mothers were married or living with the father and around 15% were separated or divorced. Mothers were more or less equally distributed amongst the three different socio-economic levels. Most of the mothers' lived in the areas of Lisbon, Porto and Oeiras (11, 8%, 8, 5% and 8, 1% of the entire sample respectively),



and the remaining 71, 6% were distributed among 51 portuguese areas, and one outside Portugal. About 77% of mothers' had a higher education (i.e. at least a bachelor degree).

### *Measures*

*Parental Emotion Regulation Scale* (PERS, in Portuguese: Escala de Regulação Emocional Parental- EREP, Barros e Pereira, 2015) is a 35 item scale wherein 32 items assess the parent's emotion regulation while facing situations that occur in the parenting context and that are related to the child's negative emotions. The parent is asked to consider the actual state and to rate the frequency of the situation detailed in each item on a 5 point Likert scale (0- Never or almost never, 1- Rarely, 2- Sometimes, 3- A lot of times, 4- Everytime or almost everytime). It's composed by four scales: Emotional Inaction (6 items, e.g.: *I can get angry with my child just because I'm irritated or upset about other things in my life*), Awareness of child's emotions (5 items, e.g.: *When my child is upset, I thrive to understand what he/she is feeling*), Avoidance of child's emotions (5 items, e.g.: *I have to avoid my child from feeling anxious at all costs*) and Acceptance of child's emotions (5 items, e.g.: *Although I don't like seeing my child upset [sad, angry, or nervous], I'm capable of tolerating it because I know it's part of growing up*). Internal consistencies for this scale with this population sample were adequate (.73, .80, .74, and .63 respectively for each scale).

*Coping with Children's Negative Emotions Scale* (CCNES; Fabes, Eisenberg & Bernzweig, 1990; Portuguese shortened version by Alves e Cruz, 2011) is a questionnaire that assesses parental reactions to children's display of negative emotions. Using twelve hypothetical situations where the child might express negative emotions, it's evaluated the parent's perceptions of their own reactions when facing child's negative emotions. Each situation has six possible answers that pertain to each subdimension, and parents are asked to assess on a scale from 0 (Not likely) to 7 (Highly likely).

Parents' reactions are organized in two scales with 3 subscales each: Problem-Centered Reactions (helping the child to deal with the emotions by focusing on the situation that elicited them, 12 items, e.g.: *If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would help my child think about ways that he/she can still be with friends*); Emotion-

Centered Reactions (helping the child find strategies to efficiently deal with what they are feeling, 12 items, e.g.: *If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would soothe my child and do something fun with him/her to make him/her feel better about missing the party*); Encouragement Reactions (encouragement behaviors towards the child's expression of negative emotions, 12 items, e.g.: *If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would encourage my child to express his/her feelings of anger and frustration*) are part of the Constructive Parental Reactions Scale. The present sample showed reasonable internal consistencies with Cronbach's alfa's of .77, .82, and .86 for each subscale respectively. Minimization Reactions (devaluation of the emotional reaction or the problem that elicited the reaction with the goal of restricting emotional expression, 12 items, e.g.: *If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would tell my child not to make a big deal out of missing the party*); Punitive Reactions (verbal and physical punishment of the child, with the intent of reprehension, for the expression of negative emotions, 12 items, e.g.: *If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would send my child to his/her room to cool off*); and Distress Reactions (discomfort and distraught of the parents in view of the child's expression of negative emotion, 12 items, e.g.: *If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would get angry at my child*) are part of the Negative Parental Reaction Scale. The present sample showed reasonable internal consistencies with Cronbach's alfa's of .80, .77, and .78 for each subscale respectively.

*Strengths and Difficulties Questionnaire* (SDQ, Goodman, 1997; Portuguese version by Fleitlich, Loureiro, Fonseca e Gaspar, 2005) is a brief behavioral questionnaire with 25 items that assesses the child or adolescent's psychological adjustment. It's administered to parents of children with ages between 4 and 16 years old. The parent is asked to rate to which degree each item corresponds to the child or adolescent's behavior in the last 6 months in a 3 point scale (0- Not true, 1- A little true, 2-Very true). Additionally, there is a supplemental Impact Assessment where it is asked if the parent considers the child or adolescent to have an emotional or behavioral difficulty. If

answered affirmatively, it is further asked about the chronicity, suffering, daily difficulty and feelings of overload on others that the problem imposes (on a scale of 0-not at all to 2-very, very much).

The questionnaire is composed by five scales with 5 items each: Emotional Symptoms Scale (5 items, e.g.: *He/she has a lot of worries, seems always worried*); Behavioral Problems Scale (5 items, e.g.: *Grows angry very quickly and throws a lot of tantrums*); Hyperactivity Scale (5 items, e.g.: *Doesn't stay still. He/she is always moving his/her legs and/or hands*); Peer Relationship Problem Scale (5 items, e.g.: *He/she isolates him/herself, likes to play alone*); and Social Competence Scale (5 items, e.g.: *He/she is sensible to other's feelings*). The questionnaire in the present sample revealed moderate Cronbach's alfa's of .55, .57, .78, .59, .67 respectively. The Emotional Symptoms Scale and Social Competence Scale make up for the Internalization scale (Cronbach's alfa of .69), and the Behavioral Problems Scale and Peer Relationship Problem Scale make up for the Externalization Scale (Cronbach's alfa of .78).

The present sample was taken from the data collected the Barros's, Pereira and Marques (2016) "Projeto-P" project. This project's ultimate goal was to understand parental behaviors, thoughts and feelings towards their children's behaviors. The specific goal was to understand the way parents self-regulated their behaviors and emotions elicited by their children. The study was divulged by social media, schools, and parents' school associations. Parents were provided with a link to the site where the questionnaires would be available. When accessed, in the first page, there was an explanation of the study and what was asked of them, followed by a question about whether or not they would participate. Only one parent or guardian was asked to fill the questionnaires out about themselves and about only one of their children (or their only one). Data collection was done from March to June of 2016.

For the present study, only the participants that filled in all items and answered all questions from the three questionnaires detailed above (SDQ, CCNES and PERS) were selected. Fathers were excluded from the study due to the small number of questionnaires filled out by them (n=25).

## IV. RESULTS

Detailed bellow, are the statistical analysis done to meet each study goal.

Goals	Analysis
<b>1- Analyze the relationship between Mothers' Emotion Regulation and Child's adjustment (Table 1)</b>	<i>r</i> Spearman correlations (non-parametric)
<b>2- Analyze the relationship between Mothers' Coping with Children's Negative Emotions and Child's Adjustment (Table 2)</b>	<i>r</i> Spearman correlations (non-parametric)
<b>3- Analyze the relationship between Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions (Table 3)</b>	<i>r</i> Spearman correlations (non-parametric)
<b>4- Analyze gender differences in regard to the Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions (Table 4)</b>	Mann-Whitney independent samples test (non-parametric)
<b>5- Analyze age group differences in regard to the Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions (Table 5)</b>	Mann-Whitney and Kruskal-Wallis independent sample test (non-parametric)

1- Analysis of the relationship between mothers' emotion regulation and child's adjustment

In Table 1 we can observe that there is an overall positive and statistically significant correlation of low magnitude between the child's adjustment problems (Internalization and Externalization SDQ scales) and the mothers' negative dimensions of emotional regulation (Emotional Inaction and Avoidance of child's emotions EREP scales). There is also a positive and statistically significant correlation (but with a weak magnitude as well) between the child's positive adjustment (Prosocial Behaviors SDQ scale) and the mothers' "positive dimensions" of emotion regulation (Awareness of child's emotions EREP scale).

An additional observation is in regard to the intra correlations of maternal emotion regulation scales (EREP). Negative emotion regulation scales (Emotional Inaction and Avoidance of child's emotions EREP scales) have a positive and statistically significant correlation of a weak magnitude between them, and the same goes for the positive emotion regulation scales (Awareness and Acceptance of child's emotions). In between positive and negative emotion regulation scales, the correlations are negative and statistically significant (of weak magnitude).

**Table 1. Relationship between mothers' emotion regulation (EREP) and child's adjustment (SDQ) (n=256-274)**

	<b>Awareness of child's emotions</b>	<b>Acceptance of child's emotions</b>	<b>Emotional Inaction</b>	<b>Avoidance of child's emotions</b>
<b>Prosocial Behaviors</b>	,18**	-,02	-,14*	,09
<b>Internalization</b>	-,13*	-,13*	,17**	,20**
<b>Externalization</b>	-,21**	-,11	,30**	,24**
<b>Awareness of child's emotions</b>	-	,23**	-,27**	,05
<b>Emotional Inaction</b>	-,27**	-,20**	-	,24**
<b>Avoidance of child's emotions</b>	-	-,25**	-	-

\*\* <0.01 level; \* < 0.05 level

2- Analysis of the relationship between mothers' coping and children's negative emotions and child's adjustment

In table 2 we can observe that, overall, mothers' negative coping with children's negative emotions (Distress Reactions and Punitive Reactions CCNES subscales) have a positive and statistically significant correlation of weak magnitude, with the child's adjustment problems (Internalization and Externalization SDQ scales). A positive correlation is observed between mothers' constructive coping with children's negative emotions scales (Expressive Encouragement, Emotion and Problem-Focused Reactions CCNES subscales) and the child's positive adjustment (Prosocial

Behavior SDQ scale). Minimization Reaction has a positive and statistically significant correlation of weak magnitude with Internalization.

Regarding intra-scales correlations, both negative coping with children's negative emotions scale (Distress Reactions, Punitive Reactions and Minimization Reactions CCNES subscales) and the constructive coping with children's negative emotions scale (Expressive Encouragement, Emotion and Problem-Focused Reactions CCNES subscales) has correlations that were overall positive and statistically significant with a magnitude ranging from moderated to strong ( $.30 < |r| < .50$  and  $|r| > .50$ ). The results also show that, between the constructive and negative coping scales, correlations are overall negative but not all are statistically significant. Although, there is a positive correlation between the Emotion-Focused Reactions subscale (CCNES) and Minimization Reactions subscale (CCNES).

**Table 2. Relationship between mother's coping with children's negative emotions (CCNES) and child's adjustment (SDQ) (n=267-274)**

	<b>Expressive Encourage ment</b>	<b>Emotion- Focused Reactions</b>	<b>Problem- Focused Reactions</b>	<b>Distress Reactions</b>	<b>Punitive Reactions</b>	<b>Minimization Reactions</b>
<b>Prosocial Behaviors</b>	,26**	,23**	,21**	-,14*	-,20**	-,10
<b>Internalization</b>	-,15*	-,07	-,16**	,15*	,12*	,10
<b>Externalization</b>	-,16*	-,12*	-,15*	,30**	,31**	,21**
<b>Expressive Encouragement</b>	-	,39**	,51**	-,18**	-,13*	-,12
<b>Emotion-Focused Reactions</b>	-	-	,66**	-,04	-,08	,08
<b>Problem-Focused Reactions</b>	-	-	-	-,112	-,15*	-,01
<b>Distress Reactions</b>	-	-	-	-	,74**	,57**
<b>Punitive Reactions</b>	-	-	-	-	-	,66**

\*\* <0.01 level; \* < 0.05 level

3- Analysis of the relationship between Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions

Overall, results show that correlations between mothers' emotion regulation (EREP) and mothers' coping with children's negative emotions (CCNES) are statistically significant with a magnitude ranging from weak ( $|r| < .30$ ) to moderate ( $.30 < |r| < .50$ ). Results show a positive and statistically significant correlation between mothers' negative dimensions of emotional regulation scales (Inaction and Avoidance of child's emotions EREP scales) and mothers' negative coping with children's negative emotions scales (Distress Reactions, Punitive Reactions and Minimization Reactions CCNES subscales). The same positive correlations were observed for their positive counterparts (i.e. mothers' positive dimensions of emotion regulation and mothers' constructive coping with children's negative emotions).

When crossing the positive and negative parenting dimensions (i.e. positive emotion regulation scales of EREP with the negative coping subscales of CCNES, and negative emotion regulation scales of EREP with the constructive coping subscales of CCNES), overall correlations reveal to be negative and statistically significant with magnitude ranging from weak ( $|r| < .30$ ) to moderate ( $.30 < |r| < .50$ ). Avoidance of child's emotions (EREP) and Emotion-Focused Reactions (CCNES) have a positive and statistically significant correlation of weak magnitude.

**Table 3. Relationship between Mothers' Emotion Regulation (EREP) and Mothers' Coping with Children's Negative Emotions (CCNES) (n=257-274)**

	Awareness of child's emotions	Acceptance of child's emotions	Emotional Inaction	Avoidance of child's emotions
Awareness of child's emotions	-	,23**	-,27**	,05
Acceptance of child's emotions	-	-	-,20**	-,25**
Emotional Inaction	-	-	-	,29**
Expressive Encouragement	,36**	,17**	-,12	-,08

<b>Emotion-Focused Reactions</b>	,36**	,10	-,14*	,21**
<b>Problem-Focused Reactions</b>	,44**	,26**	-,16*	,04
<b>Distress Reactions</b>	-,18**	-,18**	,42**	,24**
<b>Punitive Reactions</b>	-,24**	-,16**	,37**	,20**
<b>Minimization Reactions</b>	-,18**	-,20**	,30**	,24**

\*\* <0.01 level; \* < 0.05 level

#### 4- Analysis of child's gender differences in regard to the Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions

As observed in Table 4, results show only one statistically significant difference between genders. Mother's Emotion-Focused Reactions (constructive coping subscales of CCNES) is more statistically different in the female group than in the male group. ( $U = 10.694, p = .004$ ). Use of other maternal coping and emotional regulation was equal for both genders.

**Table 4. Child's gender differences in mother's emotion regulation and coping with children's negative emotions: Mean rank, test statistic, and significance level**

	Gender		U	Z	P
	Male	Female			
	Mean Rank	Mean Rank			
CCNES subscales					
<b>Distress Reactions</b>	138,00	129,46	8.307,00	-,902	,367
<b>Punitive Reactions</b>	140,74	126,34	7.918,00	-1,521	,128
<b>Expressive Encouragement</b>	131,65	136,66	9.208,00	,529	,597
<b>Emotion-Focused Reactions</b>	121,19	148,55	10.694,00	2,891	<b>,004*</b>
<b>Problem-Focused Reactions</b>	131,81	136,48	9.185,00	,494	,622
<b>Minimization Reactions</b>	163,34	152,86	11.587,00	-1,017	,309
EREP scales					
<b>Emotional Inaction</b>	137,32	132,40	8.687,00	-,520	,603
<b>Awareness of child's emotions</b>	130,5	139,71	9.602,50	,942	,346
<b>Avoidance of child's emotions</b>	128,50	137,96	9.382,50	1,007	,314
<b>Acceptance of child's emotions</b>	126,51	135,96	9.109,50	1,014	,310



\*  $p < 0.05$

#### 5- Analyze age group differences in regard to the Mothers' Emotion Regulation and Mothers' Coping with Children's Negative Emotions

In Table 5 we can observe significant differences between groups relatively to four dimensions: Distress Reactions, Emotion-Focused Reactions, Minimization Reactions (CCNES subscales) and Emotional Inaction (EREP scale). For each dimension, the significant differences between groups are as follows:

- For Mother's Distress Reactions, there are statistically significant differences between groups 1 (3-5 years old) and 2 (6-9 years old), and between groups 1 (3-5 years old) and 3 (10-13 years old). Mother's Distress Reactions for group decrease linearly with child's age (6-9, 10-13, 14-15 years old), but overall has a quadratic effect as Distress Reactions increases from ages 3-5 to 6-9 years old.
- For Mother's Emotion-Focused Reactions, there are statistically significant differences between groups 1 (3-5 years old) and 3 (10-13 years old), and between groups 1 (3-5 years old) and 4 (14-15 years old). Mother's Emotion-Focused Reactions decrease linearly with child's age.
- For Mother's Minimization Reactions, there are statistically significant differences between groups 1 (3-5 years old) and 2 (6-9 years old), groups 1 (3-5 years old) and 3 (10-13 years old), and between groups 1 (3-5 years old) and 4 (14-15 years old). Mother's Minimization Reactions increase linearly with child' age.
- For Mother's Emotional Inaction there are statistically significant differences between groups 1 (3-5 years old) and 4 (14-15 years old). Mother's Emotional Inaction overall increases significantly between the ages of 3-5 and 14-15, with a small decrease from 6-9 to 10-13.

**Table 5. Child's age differences in mother's emotion regulation and coping with children's negative emotions (Mann-Whitney and Kruskal-Wallis): Mean rank, test statistic, and significance level**

	Age group				Kruskal-Wallis		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 3</u>	<u>Group 4</u>	$\chi^2$	f	p
	<u>(3-5 y.o.)</u>	<u>(6-9 y.o.)</u>	<u>(10-13 y.o.)</u>	<u>(14-15 y.o.)</u>			
CCNES	<u>Mean Rank</u>						
<b>Distress Reactions</b>	105,96b	146,43a	140,97a	136,72ab	11,574		<b>,009*</b>
<b>Punitive Reactions</b>	117,21	146,91	134,52	128,04	5,922		,115
<b>Expressive Encouragement</b>	141,28	126,98	137,25	133,15	1,497		,683
<b>Emotion-Focused Reactions</b>	155,73a	136,79ab	123,18b	108,23b	10,370		<b>,016*</b>
<b>Problem-Focused Reactions</b>	144,06	132,25	132,90	122,35	1,928		,588
<b>Minimization Reactions</b>	105,91b	140,42a	143,98a	147,32a	11,378		<b>,010*</b>
EREP	<b>3-5 y.o.</b>	<b>6-9 y.o.</b>	<b>10-13 y.o.</b>	<b>14-15 y.o.</b>	$\chi^2$	f	p
<b>Emotional Inaction</b>	113,65b	138,94ab	136,69ab	159,60a	8,847		<b>,031*</b>
<b>Awareness of child's emotions</b>	147,94	135,12	132,90	115,88	4,081		,253
<b>Avoidance of child's emotions</b>	132,88	139,90	130,64	118,53	2,028		,567
<b>Acceptance of child's emotions</b>	140,98	129,66	128,88	120,49	1,858		,602

\*  $p < 0.05$

**Note:** Age groups with different letters (a, b) differ significantly from each other. Age groups with the same letter do not differ significantly from each other.

## V. DISCUSSION

The general purpose of this study was to study the relationship between maternal emotion regulation, maternal reactions to child's negative emotions, and child's adjustment. The child's adjustment was measured through prosocial behaviors and internalizing and externalizing behaviors.

Although parental emotion regulation has been garnishing some attention over the last decades, studies are scarce. Also, the few studies that examined the relationship between parental emotion regulation and children's adjustment measured the child's adjustment using only measures of positive social and emotional competence, not considering psychopathological dimensions to measure the

child's adjustment. The inconsistency of some results pertaining to the relationship between supportive parental reactions and children's competence also deserved some attention.

Results overall supported the first hypothesis. Mothers' negative emotion regulation (Emotional Inaction and Avoidance of child's emotions) was positive and statistically significant related to children's adjustment problems (Internalization and Externalization behaviors), and mothers' positive emotion regulation dimension (Awareness of child's emotions) was positive and statistically significant related to children's positive adjustment (prosocial behavior). Awareness and Acceptance of child's emotions pertain to the parent being able to talk about and understand emotions with the child, as well as accepting that the child experiencing both negative and positive emotions and it's both part of growing up and part of parenthood to deal with it (EREP, Pereira e Barros, 2015). As established before in the literature revision, parental ideas can basically influence how parents view parenthood, and these ideas can be predictors of the child's skills in the long-term (Benasich & Brooks-Gunn, 1996; Cruz, 2005). Emotional development is intrinsically connected to social development, and supportive parents help the child develop a healthy sense of emotional security, positive feelings towards social relationships, an adequate and constructive emotional and behavioral self-regulation, and an understanding of theirs' and others' emotions (Eisenberg et al., 1996; Eisenberg et al., 1998). It is only understandable that, with supportive parents, the child is positively adjusted and develops social skills that include ability to relate and be sensitive to others, to help and care for them (SDQ, Fleitlich et al., 2005).

On the other hand, parents who do not accept the adaptability and role of child's emotions and act unsupportively (i.e. act angry towards child's negative emotions, avoid discussion of emotions) towards their child's emotions, do not help them develop a healthy sense of emotional security. This then translates into emotion regulation problems (e.g. difficulties in expressing emotions adequately, behavioral problems like disobeying, tantrums, lying) that can potentially evolve to internalizing or externalizing clinical disorders "that operate in a maladaptive manner and direct emotion toward inappropriate goals (...) and that reflect the dysregulation of affective-cognitive structures and processes" (Cicchetti, Ackerman, Izard, 1995, p. 7).

Results also supported the second hypothesis in almost its entirety. Mothers' constructive coping with children's negative emotions (Encouragement of Expression, Problem and Emotion-Focused Reactions) was positive and statistically significant related to children's positive adjustment (Prosocial behavior); whereas mothers' negative coping with children's negative emotions (Distress and Punitive reactions) were positive and statistically significant related to children's adjustment problems (Internalization and Externalization behaviors). Minimization Reactions had a positive and statistically significant correlation only with Internalization. Following the same pattern of explanation for the first hypothesis, these were consistent with the results of the Eisenberg et al., (1996) and the Jones et al. (2002) studies. This means that, overall, positive parental coping (a.k.a. supportive parental reactions) was associated with the child's positive adjustment while negative parental coping (a.k.a. unsupportive parental reactions) was associated with the equivalent of our measures that relate to child adjustment problems (i.e. Internalization and Externalization).

Results overall supported the third hypothesis. Mothers' positive coping with children's negative emotions (Encouragement of Expression, Problem and Emotion-Focused Reactions) was positive and statistically significant related to mothers' positive dimensions of emotion regulation (Awareness and Acceptance of child's emotions). Mothers' negative coping with children's negative emotions (Minimization, Punitive and Distress reactions) was positive and statistically significant related to mothers' negative dimensions of emotion regulation (Emotional Inaction and Avoidance of child's emotions). The crossing between positive and negative parenting dimensions (i.e. positive emotion regulation scales of EREP with the negative coping subscales of CCNES, and negative emotion regulation scales of EREP with the constructive coping subscales of CCNES) revealed negative and statistically significant relation. An exception was between Avoidance of child's emotions (EREP) and Emotion-Focused Reactions (CCNES) that was positive and statistically significant.

The overall statistically significant and positive correlations in between the negative dimensions and the positive dimensions of each scale only further support the construct validity of the constructs that compose them. On one hand, Encouragement of Expression, Problem and Emotion-

Focused Reactions (CCNES) and Awareness and Acceptance of child's emotions (EREP), focus on parental behaviors that, overall, reflect acceptance of the role of emotions, the will to discuss emotions, encouragement of its adequate expression, the resources allocated to regulate and understand them. On the other hand, Minimization, Punitive and Distress reactions (CCNES) and Emotional Inaction and Avoidance of child's emotions (EREP) focus on parental behaviors that, overall, reflect unacceptance of their role, minimization of their importance and existence, avoidance of their expression and discussion, behaviors that punish or try to control the expression of emotions, and inadequate reactions to them.

Turning to the positive and statistically significant correlations between the negative dimensions of EREP and the negative (and one constructive) coping reactions of the CCNES, it is important to highlight the correlations between the scales and subscales that reflect EA (Emotional Inaction, Avoidance of child's emotions- EREP) and its meaning.

Emotional Inaction (degree of parents' difficulty to engage in goal-directed behavior when experiencing both their and their child's negative emotions) had a positive and statistically significant correlation with mothers' negative coping subscales: Distress Reactions, Punitive Reactions and Minimization Reactions. Specifically, these subscales reflect: devaluation of the seriousness or importance of the child's negative emotions (Minimization Reactions); punishment to reduce parental exposure or need to deal with the child's negative emotions (Punitive Reactions); and inadequate parental emotion expression when actually dealing with the child's negative emotions (Distress Reactions). These CCNES subscales and EREP scale, in some way, all express parental EA behavior for they have the goal of avoiding and reducing emotion exposure and expression, and all reflect the parents' inability or unwillingness to be exposed to aversive situations due to an underlying inability to tolerate the negative emotional experience and internal distress that comes with those situations (Hayes & Gifford, 1997; Olgas et al., 2013).

Avoidance of child's emotions (negative attitudes/beliefs concerning the child's negative emotions and or avoidance the child's negative emotions) also had a positive and statistically

significant correlation with the same mothers' negative coping subscales, but additionally, had a positive and statistically significant correlation with one mothers' constructive coping subscale- Emotion-Focused reactions. This reflects the parents' active change of attentional focus to avoid the child's prolonged exposure to the emotion-provoking situation. As we discussed before, the individual (i.e. the parent) uses emotion regulating strategies in order to change the form or frequency of these experiences and situations, even when these actions can cause them and others (i.e. the child) harm in the long term. Considering Gross's (1998) process model of emotion regulation, we can see that any emotion regulation strategy is regulated by or "molded" to fit parental EA's goals. Thus, this is what we observe in the positive correlation between Avoidance of child's emotions and Emotion-Focused reactions: the goal is to do anything to avoid or reduce the expression of (negative) emotions, be it for the parent's or the child's sake.

All these scales<sup>6</sup>, as we observed in previous correlations, were positively related to child's adjustment problems and negatively related to child's positive adjustment, and this may be explained by a possible cause-effect relationship between the parental EA and child's adjustment as reflected by an of inadequate emotion regulation or actual emotional dysregulation (Woodruff-Borden et al., 2002; Kashan et al., 2005). Since the child's emotion regulation is part of the parental behaviors that make up socialization of emotions, the influence of parental EA on these behaviors and others (i.e. discussion and expression of emotions) is more than expected. So we conclude that a positive parental emotion regulation helps the parent use constructive reactions towards their child's negative emotions, and contribute to a positive child adjustment.

Regarding child's gender, results supported partially the fourth hypothesis. As hypothesized (basing on results from Eisenberg et al., 1996), significant differences between groups were expected specifically that mothers' Expressive Encouragement and Emotion-Focused Reactions would be more used on girls; while Punitive and Minimization Reactions would be more used on boys. However, what was found was that, in this sample, mothers used both negative and other constructive reactions

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<sup>6</sup> Except Emotion-Focused Reactions, as the positive correlation was alone with Avoidance of child's emotions that reflected parental EA.

equally for both genders, revealing no statistical differences. The only statistically significant difference between the female and male group was for Mother's Emotion-Focused Reactions. This is consistent with the general notion that girls express emotions more frequently and openly (Chaplin & Aldan, 2012), and probably posing as "easy" targets for constructive coping such as Emotion-Focused Reactions (comforting reactions) from their mothers.

In regard to the differences in child's age group, results did not support most of the hypothesis that parental negative reactions (i.e. Distress, Punitive and Minimizations Reactions) to child's negative emotions would decrease until middle school and increase again child's age (Eisenberg et al, 1999), and therefore parental constructive reactions (i.e. Expressive Encouragement Reactions, Emotion and Problem-Focused Reactions) would increase and decrease by the same time.

Results showed significant differences between groups relatively to four dimensions: Distress Reactions, Emotion-Focused Reactions, Minimization Reactions (CCNES subscales) and Emotional Inaction (EREP scale).

Results indicated thus that, comparatively to any other age groups, mothers used less Distress Reactions with pre-school children (3-5 years old) than with elementary school children (6-9 years old) and pre-adolescents (10-13 years old), and more Emotion-Focused Reactions with pre-school children (3-5 years old) than with pre-adolescents (10-13 years old) and adolescents (14-15 years old). Mother's used Minimization Reactions increasingly with age being that they used significantly less with pre-school children (3-5 years old) in comparison with the other three age groups. Lastly, for Emotional Inaction, mothers presented significantly higher levels for adolescents (14-15 years old) than for pre-school children (3-5 years old).

Other coping reactions and emotional regulations were used equally across age groups. Overall, Distress and Minimization Reactions increased with child's age through adolescence, while Emotion-Focused Reactions decreased. Emotional Inaction increased until mid-elementary school, somewhat dropped in middle school, and increased in high school.

The explanation we can find for the linear decrease in Emotion-Focused Reactions is, as literature suggests, as children grow older they become increasingly more capable at regulating their emotions on their own by finding their own comforting and distraction behaviors. This independence reflects their growing cognitive maturity that changes their needs and abilities, and that both influence their self-regulation and parents emotion-related behaviors towards them (Settler and Katz, 2014). The linear increase (contrary to Eisenberg et al., 1999) in Minimization Reactions (i.e. devaluation of child's emotions) can be explained by the same previous fact that children are increasingly expected to be able to regulate and deal with their emotion by themselves, and this is intrinsically tied to parental and social expectancies about which emotions are adequate to be expressed according to the child's age (Eisenberg). This means that, the more the child moves into adolescence, the more parents' "don't take those [emotions] seriously" being consistent with a general notion that adolescents are easily emotionally activated. This is done, albeit parental minimizing behaviors being linked to child's lower levels of competence (e.g. Jones et al., 2002) and hence being an unsupportive parental reaction.

Maternal Distress Reactions decrease was somewhat consistent with Eisenberg's et al., (1999) hypothesis in what regards the quadratic effect. What is interesting is the unexpected significant difference and increase between the ages 3-5 years old and 6-9 years old, which poses the question: what happens at these ages that make mothers experience distress when their child expresses negative affect?

Maternal Emotional Inaction is significantly higher for mothers of adolescents comparing with pre-school mothers, and this seems inconsistent with the general finding in Settler and Katz's (2014) study where parental coaching, awareness and acceptance of child's emotions increased with child's age. One possible explanation is that parents don't know how to act other than in a distressful way reflecting their inability to regulate their child's more complex emotions for lack of regulation of their own. The significant maternal use of Emotional Inaction at adolescent age is consistent with the general idea that parental reactions, as parents view situations in a different way, become more



negative as a response to increases in conflictual exchanges with adolescents that can either stem from different opinions and views, or from a need to assert autonomy (Steinberg, 2001).

There are several limitations to the study that are important to highlight. These limitations are mostly methodological rather than theory-based limitations, as we operationalized each construct adequately for the purpose of the study. Firstly, the well-known fact of this being a cross sectional study, means that it's not possible to precise cause-effect relationships between variables (e.g. problems in mother's emotion regulation contributes to child's adjustment problems in the long-term). Second, the low level of fathers' adherence in filling in the self-reports and child reports, pose as a gap of information regarding paternal coping reactions and emotion regulation, differences for child's gender, as well as information regarding the expected different paternal view of the same child's adjustment. Thirdly, the lack of a child/adolescent self-report also leaves a gap of information regarding a different perspective of both their own adjustment and parents' coping reactions and emotion regulation. The exclusive use of self-reports prove to be easily contaminated by variables such as social desirability and distortions. And fourthly, lack of additional measures to assess child's adjustment. Although it is an innovative aspect of the study to use psychopathological dimensions to measure children's adjustment problems, other additional measures to better assess child's positive adjustment and other adjustment problems (i.e. not psychopathological-related) would have yielded more information regarding this matter.

Future studies should then try to fulfill and answer these limitations to yield more comprehensive results. An interesting future path would be to include a clinical sample for comparison with children with a diagnosed internalization/externalization disorder such as anxiety or oppositional defiant disorder; or neurodevelopmental disorders such as Attention Deficit and Hyperactivity Disorder or Autism Spectrum Disorder. Since these disorders have specific characteristics regarding emotion regulation (or dysregulation) it would be interesting to continue to explore and try to understand the influence of parental emotion regulation on these children.

Parental emotions play an important role in parenthood. Parental emotion regulation is necessary for an adequate the socialization of the child's emotions by means of expression of emotions (so the child can observe and model), reactions to emotions (mostly of the child) and discussion of emotions in general.

The flexibility in using different regulation strategies is what dictates the adaptiveness and adequateness of the emotion regulation process (Gross and Thompson, 2007), and this is valid both for when parents' self-regulate their emotions and when they help their child regulated theirs. This helps pave the child's emotional and social development through the development of a positive regulation, understanding and expression of emotions shaping the quality of social relationships with parents and the social world as well.

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