



Emotion Dysregulation, Stress, and Attitudes towards Parent-Child Play in two Samples of Working Mothers

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Received: 6 April 2023 / Accepted: 19 April 2026
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Abstract

Although there is large consensus on the importance of play for child development, scant research has examined whether parents' emotion-related traits such as emotion regulation abilities influence their proneness to engage in and enjoy parent-child play. In this paper, we examine the relationship between maternal emotion dysregulation (ED), stress, and attitudes towards parent-child play in two independent samples of working mothers ($N=186$ and $N=330$). Three forms of stress were considered: parenting stress, overall perceived stress, and stress from time management. The results showed that in both samples, ED was positively related to all forms of stress. Also, in both samples, maternal ED showed a significant indirect effect on avoidant attitude towards play through perceived life stress. In sample 2, we also found a significant indirect effect of ED on enjoyment of play through parenting stress. Notably, the more employed mothers reported a negative, avoidant attitude towards parent-child play, the less often they reported to engage in different types of play during the past two weeks. Overall, perceived life stress and parenting stress emerged as distinct pathways linking emotion dysregulation and different dimensions of mothers' attitudes towards parent-child play. These results suggest that difficulties in emotion regulation may represent a promising target for intervention training programs. Interventions that cultivate ER abilities and reduce stress may promote more positive attitudes toward parent-child play and, ultimately, more frequent and emotionally rewarding play interactions.

Highlights

- Little research has examined the implications of parents' emotional functioning for their attitudes towards positive, shared activities such as parent-child play.
- Using two independent samples of working mothers, we tested whether the relationship between emotion dysregulation (ED) and attitudes towards parent-child play was mediated by mothers' stress.
- Perceived life stress emerged as mediator of the association between ED and avoidance of parent-child play, while parenting stress led to lower enjoyment.
- Difficulties in emotion regulation may represent a promising target for intervention training programs aimed at reducing stress and promoting more positive attitudes towards parent-child play interactions.

Keywords Emotion Dysregulation · Stress · Parenting Stress · Parent-Child Play · Employed Mothers

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Emotion *regulation* (ER) has been generally defined as the ability to effectively control one's emotions through a number of strategies through which individuals can influence the occurrence, timing, and intensity of their emotional responses (Gross, 2001, 2015). Extensive research has examined individual differences in ER, showing that the habitual use of different ER strategies can lead to adaptive or detrimental consequences for multiple domains of the individual's psychological functioning, such as well-being, health, and social relationships (Balzarotti et al.,

2016; Berking & Wupperman, 2012; John & Gross, 2004; Willroth & John, 2024).

Within the study of ER, research has distinguished emotion *dysregulation* (ED), which generally refers to problems or difficulties in key areas of ER (e.g., Beauchaine & Cicchetti, 2019; Bradley et al., 2011; Gratz & Roemer, 2004; for a review see D'Agostino et al., 2017). ED may consist in either an inability to use ER strategies when needed (ER failure) or in the use of ER strategies that are inappropriate to the situation (emotion misregulation; Gross & Jazaieri, 2014). Theoretically, ED has been conceptualized as a multidimensional construct that comprises difficulties in awareness and acceptance of emotions, an inability to maintain goal-directed behavior in the presence of intense negative emotions, limited access to the use of effective emotion regulation strategies, lack of clarity and difficulties in impulse control (Gratz & Roemer, 2004). These difficulties can lead to excessively intense, prolonged, and poorly modulated emotional responses (Bradley et al., 2011; D'Agostino et al., 2017). In this regard, ED has been consistently linked with psychological maladjustment, including the development of psychopathology (e.g., Aldao et al., 2010; Bradley et al., 2011; Cole et al., 2017; Beauchaine & Cicchetti, 2019).

In the current study, we consider ED in the context of parenthood and examine whether mothers' ED is associated with a form of positive parenting behavior, that is, the tendency to engage in parent-child play. Adding to a growing body of research dealing with mothers' employment as a contextual variable potentially influencing parenting behavior (e.g., Moreira et al., 2019; Rönkä et al., 2017; Rose, 2017), we examine whether employed mothers' attitudes towards their child's request to play together depend on how they regulate their emotions and on the levels of stress they experience.

Emotion Regulation, Emotion Dysregulation and Parenting Behavior

In the last decades, a growing body of research has examined both ER and ED in the context of parenthood (Crandall et al., 2015; Rutherford et al., 2015; Zimmer-Gembeck et al., 2022; Zitzmann et al., 2024). This surge of attention has been motivated by the need to better understand the potential factors that influence parenting behavior and that can be the target of interventions aimed at promoting better parental skills (Martin et al., 2017; Zitzmann et al., 2024). Parenting has been acknowledged as "a complex, skill-based task that involves many daily emotions that require regulation" (Zimmer-Gembeck et al., 2022, p. 63). Relatedly, researchers have emphasized the complexities of ER within the context of parenting, with parents facing the double challenge

of self-regulating their own emotions and helping their children learn ways to regulate their own emotional responses (Hajal & Paley, 2020; Rutherford et al., 2015).

Conceptual models (Crandall et al., 2015; Hajal & Paley, 2020) have been proposed conjecturing that parents' abilities to effectively regulate and control emotions play a prominent role in influencing parenting behavior and practices. For instance, Hajal and Paley (2020) have recently integrated Eisenberg et al. (1998)'s model of parental socialization of emotions by including ER capacities among the parents' emotion-related characteristics that can influence parenting behaviors. Consistent with this view, several studies have shown that low ER skills or heightened levels of ED are associated with less positive parenting (e.g., being sensitive, warm, responsive, and supportive) and more negative parenting behaviors (e.g., being harsh, rejective, and withdrawn; using psychological control and an authoritarian parenting style), including increased risk for child maltreatment (Brenning et al., 2020; Carreras et al., 2019; Leerkes et al., 2020; Morelen et al., 2016; Rodriguez et al., 2021; Shaffer et al., 2018; Shaw & Starr, 2019; for reviews and meta-analyses see Crandall et al., 2015; Goagos et al., 2023; Lotto et al., 2024; Zimmer-Gembeck et al., 2022). This research has also shown that parental ED has ripple effects on children's emotional and social adjustment, leading to underdeveloped ER abilities and to internalizing and externalizing problems (Camisasca et al., 2022; Crespo et al., 2017; Han et al., 2016; Iwanski et al., 2025; Zimmer-Gembeck et al., 2022).

Positive Parenting and Parent-Child Play

Although there is not a unique, shared definition (Prime et al., 2023), *positive parenting* generally refers to a variety of parenting behaviors that are considered beneficial to children (Bornstein, 2003; Chen et al., 2019). These behaviors comprise sensitivity, responsiveness, and non-harsh discipline, as well as the engagement in cooperative, positive parent-child interactions, such as shared reading, everyday routines, and parent-child play (Cates et al., 2018; Cprek et al., 2015; Prime et al., 2023; Seal et al., 2025). While there is general agreement on the importance of play for child physical, cognitive, social, and emotional development (see Lai et al., 2018, for a review), research has also acknowledged the importance of parents' engagement in children's play: Parents can encourage and promote children's play and their active involvement in play activities can influence children's outcomes (Bornstein & Tamis-LeMonda, 1995; Menashe-Grinberg & Atzaba-Poria, 2017; Tamis-LeMonda et al., 2004). Although parent-child play provides a valuable opportunity for parents to be fully engaged and bond

with their children (Ginsburg, 2007), little attention has been given to the factors that can influence parents' attitudes towards parent-child play. Thus far, research has mainly examined parents' beliefs and perceptions of the value of play (Bipath et al., 2022) and how these beliefs vary across gender, groups, and cultures (e.g., Lin & Li, 2018). By contrast, little is known concerning parents' proneness to engage in play with the child, spend time and enjoy playing (Ahmadzadeh et al., 2020). Relatedly, even less is known about the role of parents' emotion-related traits such as ER capacities for engagement in child play (Bornstein et al., 2011).

Ahmadzadeh et al. (2020) have recently developed the Parent Play Questionnaire (PPQ), a self-report measure to assess frequency of parent-child play and parents' attitudes towards play with their child. In more detail, this scale examines parents' self-reported tendency to engage in or avoid playing with the child when busy and/or tired, as well as parents' attempts to find opportunities to play. Their results showed that higher frequency and more positive attitude towards parent-child play were associated with higher parenting self-efficacy and less negative feelings towards the child, as well as with fewer hostile/reactive behaviors. Notably, frequency of parent-child play and parent attitudes towards play were significantly correlated. Drawing from previous studies linking parental ED with diminished positive parenting behaviors (Carreras et al., 2019; Zimmer-Gembeck et al., 2022), the current study advances the hypothesis that mothers' ED is associated with lower positive attitudes towards parent-child play as measured by the PPQ.

Perceived Life Stress and Parenting Stress as Potential Pathways linking ED and Parenting Behavior

Despite growing interest in the role of parents' difficulties in emotion regulation for parents' behaviors and parent-child interaction, little research has focused on the underlying mechanisms through which ED may exert its impact. We argue that a potential pathway is through heightened experience of stress: ED is generally thought to amplify the experience of life stress and negative affect, as dysregulated individuals are unable to manage intense feelings and likely to perceive stressors as overwhelming (Bradley et al., 2011; D'Agostino et al., 2017). Relatedly, there is some evidence that higher levels of perceived life stress can in turn lead to more controlling and less supportive patterns of parent-child interaction (Pett et al., 1994; Snyder, 1991), as well as to more emotional and behavioral withdrawal (Repetti & Wood, 1997). In this regard, it has been reasoned that

parents high on ED may become more self-absorbed when experiencing stress and negative affect, which may cause them to be less sensitive and responsive to the need of the child (Brenning et al., 2020; Crandall et al., 2015; Iwanski et al., 2025).

Besides the experience of general life stress, some recent studies have pointed towards a positive relationship between parental ED and parenting stress, that is, a specific type of stress that arises from the demands related to the parental role (Abidin, 1992; Deater-Deckard, 2004). This research has shown that difficulties in emotion regulation can intensify parenting stress: Parents with higher ED tend to have more difficulties in handling stressors and thus perceive parenting as more stressful than those with lower ED (Bai & Han, 2016; Camisasca et al., 2022; Cao et al., 2017; Hu et al., 2019). In turn, parenting stress is well-known for its negative impact on parenting behavior (Deater-Deckard, 2004). According to Abidin (1992)'s Parental Stress Model, parents who experience greater stress in the parenting role may engage in less optimal parenting behavior, leading to higher probability of emotional/behavioral problems in children. In this regard, there is robust evidence that parenting stress impacts parenting behavior, leading to less supportive and nurturing interactions, less care and affection, and less optimal bonding with the child (e.g., Assel et al., 2002; Flannery et al., 2023; Hu et al., 2019; Ward & Lee, 2020).

Overall, emotion dysregulation, parenting behaviors, and stress have been conceptually related and existing studies provide empirical support for their association. However, research examining all three constructs together is still limited (Camisasca et al., 2022; Hu et al., 2019; Iwanski et al., 2025; Le et al., 2017). In a recent study, Hu et al. (2019) have tested a mediation model, finding that parental ED was related to less optimal parenting behavior (i.e., less care, higher overprotection) through parenting stress. Relatedly, Le et al. (2017) have shown that parenting stress longitudinally mediated the association between parents' trait negative affect (i.e., anxiety and depression symptoms) and harsh parenting behavior – trait negative affect has been consistently associated with ED (Bradley et al., 2011; Carreras et al., 2019). Additionally, few studies have examined whether perceived life stress and parenting stress represent two distinct pathways influencing parenting behaviors (Barreto et al., 2024; Crnic et al., 2005). In an observational study, Crnic et al. (2005) found that both life and parenting stress were associated with lower maternal positivity (i.e., fewer expressions of positive affect) while interacting with the child. Parenting stress was uniquely related to lower dyadic pleasure (i.e., mutual enjoyment), whereas perceived life stress to dyadic conflict. By contrast, Barreto et al. (2024) found that life stress but not parenting stress was associated with lower parents' positive (e.g., involvement,

engagement) and higher negative (e.g., being harsh and critical) behavior during a parent-child play interaction task.

Employed Mothers: Time Pressure as a Source of Stress

Finally, the current study focused on employed mothers. According to Belsky (1984)'s process model of parenting, contextual factors (i.e., marital relationships, social network, and work) represent a core domain that can influence parents' behavior by providing potential sources of stress or support. Among these contextual stressors, maternal employment (Belsky, 1984; Hoffman, 1974; Repetti & Wang, 2014) has received considerable attention, following the common belief that mothers' employment affects child outcomes by reducing the time that mothers dedicate to their children, including playing together (Hsin & Felfe, 2014). Thus far, existing studies have shown that employed mothers do not reduce their parental childcare time compared to full-time homemakers (Craig, 2007; Craig & Mullan, 2013; Hsin & Felfe, 2014; Zick et al., 2001). Nonetheless, protecting time that involves direct engagement with children often entails personal costs, such as spending less time in sleep, child-free leisure, and self-care (Bianchi et al., 2006; Craig, 2007; Craig & Mullan, 2013). Employed mothers often need to reschedule activities (e.g., Craig, 2007) and this puts significant demands on women's time, with increased feelings of stress and overload (Dugan & Barnes-Farrell, 2020).

Although the need to manage time and balance between work and childcare (Craig, 2007; Hsin & Felfe, 2014; Rose, 2017), time pressure, and difficulties in time allocation (Craig, 2007; Rose, 2017) have emerged as a significant source of stress among both working mothers and fathers (Roxburgh, 2012), research has shown that employed mothers report significantly more feelings of being pressed for time (Craig & Brow, 2017; Roxburgh, 2012) and are more likely to encounter conflicts between work and family than fathers (Cooklin et al., 2015; Moreira et al., 2019; Rajgariah et al., 2021; Yuan et al., 2022). Notably, working mothers' difficulties in balancing work and family duties have been associated with elevated levels of perceived life stress (Dugan & Barnes-Farrell, 2020; Zhou et al., 2018), parenting stress (Rajgariah et al., 2021), and low perceived quality of parent-child relationship (Liu et al., 2022). By contrast, little is known regarding the relationship between time-related stress and parenting behavior. Some indirect evidence comes from the study by Rönkä et al. (2017) showing an association between mothers' working time patterns and their self-reporting of positive parenting (i.e., responsiveness, involvement in terms of spending time with the child). It has been reasoned that mothers experiencing time

management difficulties and pressures may have less time and resources to engage in positive parenting activities on a regular basis (Rönkä et al., 2017).

The Present Study

The current study examined the relationship between maternal emotion dysregulation (ED), stress, and attitudes toward parent-child play using two independent samples of Italian working mothers. The first sample assesses the association between ED, stress, and play attitudes, while the second sample expands on these findings by refining the measurement of play attitudes and incorporating self-reported play frequency to provide a more comprehensive understanding of engagement in parent-child play.

Based on the theory and evidence reviewed above, the study tested the mediation model displayed in Fig. 1 (we omitted covariances and sociodemographic variables for simplicity). First, consistent with prior studies (e.g., Iwaniski et al., 2025; Camisasca et al., 2022), we expected that maternal ED would be positively associated with both perceived life stress (i.e., feeling overwhelmed by daily stressors) and parenting stress (i.e., feeling dissatisfied with the parent-child relationship and judging the child more negatively) (path *a*, H1). We also hypothesized that mothers experiencing more difficulties in emotion regulation would also report more strains in dealing with time allocation between work, family, and personal needs. Second, we expected that these sources of stress would be related to less positive attitudes towards parent-child play (path *b*, H2; Crnic et al., 2005; Rönkä et al., 2017). Third, mothers high on ED were expected to be less prone to engage in parent-child play when tired or busy than mothers low in ED (path *c*, H3; e.g., Crandall et al., 2015; Zimmer-Gembeck et al., 2022). Fourth, we hypothesized that this relationship would be mediated by mothers' levels of stress (H4; Hu et al., 2019). Finally (Sample 2 only), we hypothesized that mothers' attitudes towards parent-child play would predict self-reported frequency of parent-child play (H5; Ahmadzadeh et al., 2020).

The study was conducted in the Italian context, which is characterized by family polices and social-cultural norms concerning motherhood that contribute to employed mothers' stress (Balzarotti et al., 2025; Minello, 2022). Although Italian families are going through a transition phase in which fathers are gradually taking on more responsibility in childrearing (Crespi et al., 2016), childcare is still largely considered by Italian parents to be women's responsibility (Bertolini et al., 2015) and women also perform most of the household work (Collins, 2021). "Intensive mothering" ideals are widespread (Bertolini et al., 2015; Minello, 2022)

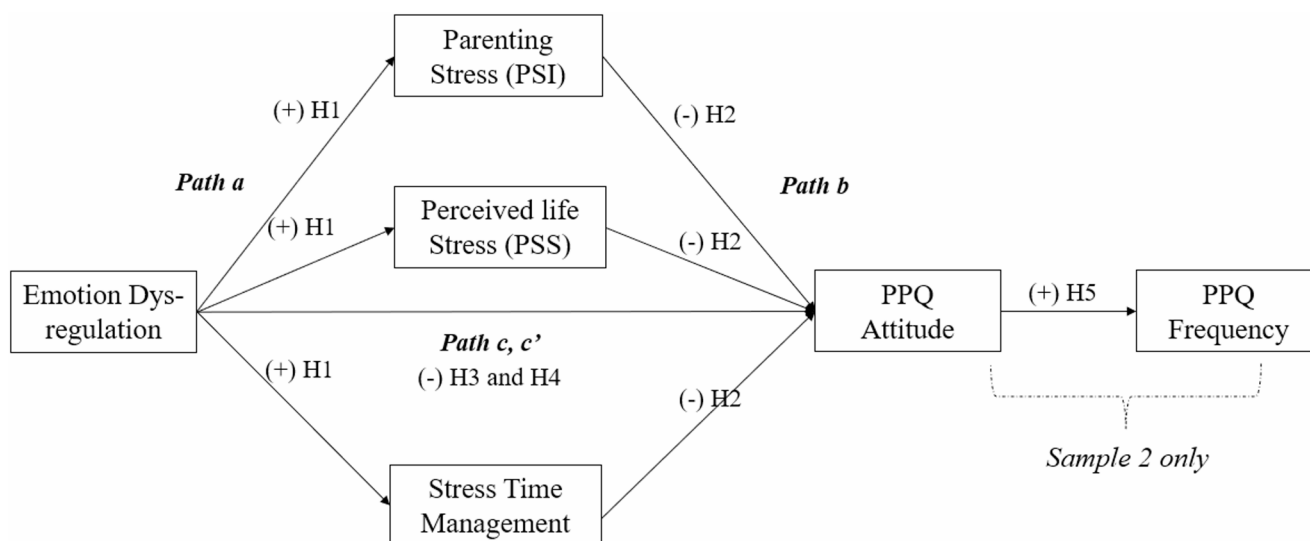


Fig. 1 Conceptual Mediation Model of Emotion Dysregulation, Stress, Attitudes towards and Frequency of Parent-Child Play. *Note.* For simplicity's sake, sociodemographic variables and covariances are not shown

and demand mothers to dedicate copious time, energy, and resources to their children as primary caregivers. Additionally, due to a 'familistic' welfare system (Bertolini et al., 2015), policies and public services such as childcare facilities that help parents to reconcile work and family duties have had slow and marginal development (Naldini & Saraceno, 2022).

Method

Sample

Two independent samples of employed mothers participated in this research. The sociodemographic characteristics of both samples are reported in Table 1.

Sample 1 consisted of 186 working mothers (mean age 39.05, $SD=5.62$; range 23–56), while sample 2 comprised 330 working mothers (mean age 39.72, $SD=5.32$; range 25–59). Both samples were convenience samples that were recruited posting invitations to participate in the study on mom groups on social media such as Facebook and Instagram. Moreover, flyers and invitations to participate were distributed in nursery and kindergarten schools and in dance schools in the Milan area. Snowball sampling was also employed: Mothers were asked to spread the invitations to other mothers within their acquaintances.

The samples included mothers having children between the ages of 1–10. We focused on this age range since these children spend the most time with their parents and parents still play an important role in shaping children's experiences (Fang et al., 2024). Mothers with children 0–1 year were

excluded as there were higher possibilities of these mothers staying at home for childcare.

Procedure

The researchers provided participants with the link to an online questionnaire on the Qualtrics platform either by using a QR code or by copying the URL on WhatsApp groups. The questionnaire was preceded by an information sheet and a consent form that participants were asked to read. Participants were required to give their consent for participation in the research before starting to complete the questionnaire. All participants were volunteers and received no compensation for their participation in the study.

The initial part of the questionnaire asked the respondent to report socio-demographic information (e.g., age, education, family size, child age and sex). If two or more of her children were in the age range considered by the study, the respondent was asked to answer the questionnaire referring to one child only.

The research protocol was approved by the Ethics Committee of the Department of Psychology of the XXX [removed for blind review] University.

Measures

Difficulties in Emotion Regulation

Emotion dysregulation was assessed using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Sample 1 answered the 36-item version of the scale (DERS; Gratz & Roemer, 2004; Italian adaptation by Sighinolfi et al., 2010), which consists of six subscales

Table 1 Sample Characteristics

Socio-demographic (%)	Sample 1 (N=186)	Sample 2 (N=330)
Education Level		
Primary school	1	-
Junior high school	6	3
Senior high school	31	29
University	47	45
Post-university	15	24
Marital Status		
Single	2	3
Married or living together	89	92
Divorced	8	4
Widow	1	1
Target child's age		
1–3 (<i>toddler</i>)	29	46
4–6 (<i>preschooler</i>)	28	26
7–10 (<i>school-aged</i>)	44	28
Family size		
Single child	47	49
Two children	40	42
3 or more children	13	9
Target child's sex (% Male)	48	52
Working from remote during pandemic	55	57
Currently working from remote	22	35
Occupation		
Employee (clerical)	34	32
Education (e.g., teacher, educator)	14	12
Healthcare practitioner	10	10
Managers or entrepreneurs	9	10
Retailer	3	8
Social services (e.g., psychologist)	8	5
Lawyer	4	1
Architect, engineer, designer	3	4
Worker (e.g., industrial, maid)	4	4
Administration	1	3
Art (e.g., musician)	-	3
Other (e.g., consultant)	12	9

(i.e., Nonacceptance of emotional responses, difficulties in engaging in Goal-directed behavior, Impulse control difficulties, limited access to emotion regulation Strategies, lack of emotional Clarity, and lack of emotional Awareness). Each item is rated on a 5-point scale based on how often participants believe each item pertains to them (from 1 = *almost never* to 5 = *almost always*).

The factor structure of the DERS in Sample 1 was checked using Exploratory Factor Analysis (EFA). For the sake of brevity, details about this analysis are reported in the Supplementary Materials (Table S1). A total score was computed, with higher scores indicating greater problems with ER. Cronbach's alpha for the total score was = 0.91.

Sample 2 was asked to answer a brief, 18-item version of the DERS that we developed based on the results obtained in Sample 1. In more detail, for each subscale, we included

the three items showing the highest factor loading in the EFA. The factor structure of the DERS in Sample 2 was checked using Confirmatory Factor Analysis (CFA). The details (fit indices, factor loadings) are reported in Supplementary Materials (Figure S1). Of note, these items closely resembled those belonging to the DERS-SF (Kaufman et al., 2016) with minor deviances. A total score was computed and Cronbach's alpha for the total scale was = 0.89.

Perceived Stress

The short form of the Perceived Stress Scale (PSS; Cohen et al., 1983; Mondo et al., 2021) is one of the most commonly used tools to measure individual's levels of perceived life stress. It consists of 10 items asking about the respondent's feelings and thoughts during the last month. In this study case, the respondent was asked to indicate how often she felt or thought a certain way in the past two weeks using a Likert scale ranging from 0 (=never) to 4 (=very often). Due to a Qualtrics platform error in the first data collection (Sample 1), two items were unintentionally omitted from the PSS. The remaining eight items were analyzed. Cronbach's alphas for the total scale were = 0.81 (Sample 1) and 0.84 (Sample 2).

Stress From Time Management

We used four ad-hoc items to assess mothers' difficulties in splitting their time among work, family, and free time for themselves over the past two weeks (e.g., *I felt stressed by the need to split my time between work, family, and myself*). Items were created ad hoc since previous research has used either single items (e.g., Chen et al., 2022) or items drawn from scales measuring work-family conflict, which however do not tap free time or time devoted to self-care. Respondents were asked to rate the items using a Likert scale ranging from 1 (=not at all) to 6 (=extremely).

In Sample 2, two more items were added to improve reliability (i.e., *I feel like I couldn't manage to have enough time for work, family and myself as I wished; I feel I had to dedicate less time to my family and myself due to work commitments*). Respondents were asked to rate to what extent the statements described their feelings over the past two weeks using a Likert scale ranging from 1 (=not at all) to 6 (=extremely). Cronbach's alphas were = 0.71 (Sample 1) and = 0.82 (Sample 2).

Parenting Stress

The short form of the Parenting Stress Index (PSI-SF; Abidin, 1990; Italian adaptation by Guarino et al., 2008) is a 36-item questionnaire measuring stress levels experienced

within the parenting role. The respondent is asked to answer each item on a Likert scale ranging from 1 (= *strongly disagree*) to 5 (= *strongly agree*). The questionnaire taps three domains of parenting stress: Parental Distress (e.g., “*I feel trapped by my responsibilities as a parent*”), Parent-Child Dysfunctional Interaction (e.g., “*My child rarely does things for me that make me feel good*”), and Difficult Child (e.g., “*My child makes more demands on me than most children*”). The scale also yields a total score, which we used in the present research for the analysis. Cronbach’s alphas were = 0.89 (Sample 1) and = 0.91 (Sample 2).

In Sample 1, 8% of mothers obtained a total score above the 80th percentile (indicative of high parental stress) and 5% above the 90th percentile (clinically relevant parental stress). In Sample 2, 10% of mothers obtained a total score above the 80th percentile (indicative of high parental stress) and 8% above the 90th percentile (clinically relevant parental stress).

Attitudes Towards Parent-Child Play

The Parent Play Questionnaire (PPQ; Ahmadzadeh et al., 2020) – Part C is a self-report measure recently developed to assess parents’ attitudes towards parent-child play. It consists of eleven items assessing parent involvement in and enjoyment of parent-child play. Nine items reflect a negative, avoidant attitude (e.g., *I avoid playing with my child when I have other jobs that need doing*), while three items concern a positive attitude (e.g., *I look forward to playing with my child*). Negative items are reversed scored – thus, higher scores indicate a more positive attitude. The respondents are asked to rate how often they have behaved in the same way as described by each statement over the past two weeks (from 1 = *never* to 4 = *always*). Two control items ask participants to select a specified response (e.g., *This is a quality control question: please select ‘Never’*).

We developed an Italian version of the PPQ - Part C using a back-translation procedure. First, the original scale was translated from English to Italian by an Italian citizen living in the US for more than ten years. The items were then translated back to English by an English language professor. Discrepancies emerging from back-translation were discussed and adjustments to the Italian translation of the PPQ were made. Although the validation of an Italian adaptation of the PPQ was not a specific goal of our study, we nonetheless employed EFA with principal axis factoring (as in the original validation of the scale; Ahmadzadeh et al., 2020) to preliminary test the factor structure of the Italian PPQ to examine the construct validity of our measure. The results of these analyses are reported in the Supplementary Materials. The EFA yielded a single factor solution and

eight items were retained. Reliability was good (Cronbach’s alpha = 0.89).

A modified version of the PPQ – Part C was used for data collection in Sample 2. Most of the PPQ items have emotionally negative content and focus on parents’ tendency to avoid playing with the child when busy or tired. In the Italian version of the PPQ used in Sample 1, six items out of eight had this content. Since very few items assessed parents’ positive affective experience (i.e., enjoyment) while playing with the child, the research group wrote a pool of eight items tapping enjoyment while playing (e.g., “*Playing with my child is so much fun*”; “*When I’m playing with my child, I feel light-hearted pleasure*”) so that positive valence was better represented. These items were then evaluated by five independent judges concerning content validity. After this evaluation, four items were retained (Lawshe, 1975). The resulting twelve items were re-ordered and re-numbered (see Supplementary Materials, Table S3). Mothers were asked to rate how often they have behaved in the same way as described by each statement over the past two weeks using a Likert scale ranging from 1 (= *never*) to 4 (= *always*).

The factor structure of the PPQ was again examined using EFA with principal axis factoring. The results of these analyses are reported in the Supplementary Materials. The EFA yielded a two-factor solution. The first factor included four items newly designed to measure parent’s positive emotions plus item 10 from the original version of the PPQ. We named this factor Enjoyment. The second factor comprised five items used in Study 1 and belonging to the original version of the PPQ and was named Avoidance. Cronbach’s alphas were 0.86 and 0.82 respectively.

Frequency of Parent-Child Play (Sample 2 only)

The Parent Play Questionnaire (PPQ; Ahmadzadeh et al., 2020) – Part A comprises eight items assessing the frequency of different types of parent-child play. To assess how frequently mothers have played with their child over the past two week, the items of the PPQ – Part A were translated using the same back translation procedure used for Part C. However, since the original PPQ - Part A questionnaire has been validated in samples of parents of children with an age ranging from 0.3 to 2.5 years, the items were modified to include more types of parent-child play. Based on a review of the play literature (e.g., Hughes, 2009; Scarlett et al., 2005), we included 12 items: physical play (e.g., moving child’s limbs, trout little horse game, fight games, dancing); turn-taking play without toys/other objects (e.g., hide and seek); play with toys (e.g., car toys, dolls); game logic (e.g., puzzles); play outdoor (e.g., football, swing, bicycle); building games (e.g., building blocks, car or train tracks); creative/art games (e.g., drawing, play dough); play with books

(reading, pointing to pictures); pretend games (e.g., talk on toy telephone, cooking); sociodramatic play with role-play and imaginary situations (e.g., cowboys, superheroes); board games; digital play (e.g., videogames).

Respondents were asked to indicate how often they have played with their child in the following ways over the past two weeks using a Likert scale ranging from 1 (= *never*) to 6 (= *several times a week*). A mean total score across the types of play was then computed. Cronbach's alpha was 0.87.

Analytic Strategy

First, we conducted preliminary analyses using independent samples *t* test or chi square to examine potential differences between completers and non-completers (attrition).

Second, we computed descriptive statistics and Pearson's bivariate correlations among the study variables (including sociodemographic variables). *T* tests were used to examine differences due to child sex, while a univariate ANOVA was run to assess differences depending on child age.

Third, we tested the conceptual model shown in Fig. 1. The analysis was run using IBM SPSS software and the macro 'PROCESS' developed by Hayes (2017). PROCESS macro is a widely used, regression-based modeling tool designed for mediation and moderation analysis. The macro provides an estimation of the total effect model (i.e., the model including the independent variable and covariates only) and of the direct effect model (i.e., the model that also includes the mediators). Moreover, it uses bootstrapping (i.e., a resampling method that uses repeated random sampling with replacement from an existing dataset) to estimate indirect effects and generate confidence intervals (CIs). We employed model number 4 (i.e., the simple mediation model) setting to 5000 the bootstrap samples and to 95% the CIs. CIs not including zero represent a statistically significant effect. ED was included as independent variable (IV); perceived life stress, parenting stress, and stress from time management as mediators (M); attitudes towards parent-child play (PPQ) as dependent variable (DV). Mother's education, child's age, and family size were included as covariates. Mother's age and child sex were dropped from the model since no significant effects emerged.

In Sample 2, the conceptual model shown in Fig. 1 was tested using path analysis. Compared with the analysis of Sample 1 data, the dependent variable (DV) comprised two dimensions of mothers' attitudes towards parent-child play, namely avoidance and enjoyment (see Measure section). Second, the model included the frequency of parent-child play to test H5 hypothesis. We employed AMOS package program v. 27 (IBM R© AMOS™ Version 27.0; IBM Corporation, Meadville, PA, United States) to estimate the model parameters, total and direct effects, and compute

model fit. Maximum Likelihood (ML) was used as estimation method. Model fit was determined by a Comparative Fit Index (CFI) value of > 0.95 and a Root Mean Square Error of Approximation (RMSEA) value of < 0.08 (Hu & Bentler, 1999). Indirect effects of ED on attitudes towards play were also estimated in AMOS, using user-defined estimates, bootstrap resampling procedures with 5000 samples and 95% bias-corrected confidence intervals (CIs). Sociodemographic variables were included in the path model as covariates, but mother's age and child sex were dropped since no significant effects emerged.

Results

Preliminary Analyses of Attrition

A significant percentage of respondents did not complete the questionnaire (Sample 1: 20%; Sample 2: 12%). No significant differences between completers and non-completers emerged in either Sample 1 or 2 concerning mother's age (Sample 1: $t(184) = 0.20, p = .846$; Sample 2: $t(326) = 0.77, p = .445$), child age (Sample 1: $\chi^2(2) = 0.26, p = .879$; Sample 2: $\chi^2(2) = 1.65, p = .438$), emotion dysregulation (Sample 1: $t(184) = 0.43, p = .665$; Sample 2: $t(328) = 0.81, p = .419$), and perceived life stress (Sample 1: $t(184) = 1.01, p = .316$; Sample 2: $t(328) = 0.83, p = .410$).

However, some attrition bias emerged concerning family size in Sample 1, $t(183) = 1.92, p = .030$, and education in Sample 2, $\chi^2(1) = 16.50, p = .001$. Non-completers had on average more children (Sample 1) and reported a lower education level (Sample 2) compared to mothers who completed the questionnaire. Since the effects of family size (Sample 1) and education (Sample 2) were considered in the regression and path models, this selectivity will be minimized as much as possible.

Descriptive and Correlation analyses

Descriptive statistics and bivariate correlations between the study variables are reported in Table 2 (Sample 1) and Table 3 (Sample 2). In both samples, mothers' ED was significantly associated with all stress measures, as well as with attitudes towards parent-child play. Correlations coefficients were small to moderate. Of note, the three stress measures (perceived life stress, parenting stress, and stress from time management) were correlated.

Concerning sociodemographic variables, mothers' age showed no significant correlations with the study variables in Sample 1, whereas it was related to higher avoidance and lower frequency of parent-child play in Sample 2. Mothers' education was associated with higher levels of ED in

Table 2 Sample 1: Means, Standard Deviations, and Bivariate Correlations among the Study Variables

	M	SD	1	2	3	4	5	6	7
1 Mother's age	39.05	5.62	-						
2 Education level	-	-	0.17*	-					
3 Family size	1.69	0.75	0.04	-0.04	-				
4 Stress from time management	4.16	0.98	-0.06	0.05	0.02	-			
5 Emotion dysregulation	75.88	18.06	-0.05	-0.28**	0.16*	0.19*	-		
6 Perceived life stress (PSS)	2.00	0.60	-0.14	-0.27**	0.15*	0.39**	0.63**	-	
7 Parenting stress (PSI)	63.26	15.33	-0.08	-0.25**	0.14	0.35**	0.49**	0.49**	-
8 Parent-child play (PPQ)	21.60	4.57	-0.12	-0.14	-0.37**	-0.23**	-0.18**	-0.26**	-0.28**

Note. For variables 1 to 5 $N=186$; for the Parenting Stress Index (PSI) $N=152$; for the Parent Play Questionnaire (PPQ) $N=145$

Sample 1, with increased perceived life stress and parenting stress in both samples, and with lower enjoyment of parent-child play in Sample 2. Family size was associated with higher levels of ED and perceived life stress, as well as with lower positive attitudes towards parent-child play in Sample (1) Likewise, it was related to higher avoidance and lower frequency of parent-child play in Sample (2) All correlation coefficients were relatively small ($<|0.30|$).

No significant differences emerged when examining child sex in either Sample 1 or 2. In Sample 1, child age showed a significant effect on the PPQ score, $F(2,144)=7.83$ $p = .001$, $\eta^2=0.10$. Bonferroni corrected post-hoc analyses revealed that mothers of younger children (1–3 years old) reported more positive attitudes towards parent-child play than mothers of preschoolers ($SE = 0.96$, $p = .029$) and school-aged children ($SE = 0.87$, $p < .001$). A similar effect of child age was found in Sample 2 on PPQ Avoidance, $F(2,284)=19.39$, $p < .001$, $\eta^2=0.12$. Bonferroni pairwise comparisons revealed that mothers of younger children (1–3 years old) reported significantly lower scores than mothers of preschoolers ($SE = 0.407$, $p < .001$) and school-aged children ($SE = 0.412$, $p < .001$).

Mediation Analyses

Sample 1

The results of the analysis are reported in Table 4. Consistent with H1, ED was significantly associated with perceived life stress, parenting stress, and to a lesser extent with stress from time management (a paths). H2 was partially confirmed, since perceived life stress but not parenting stress and time-related stress were significantly associated with mothers' attitudes towards parent-child play (paths b). Consistent with H3, ED was negatively associated with mothers' attitude towards parent-child play, even though the association was small (total effect model, path c). This relationship was mediated by perceived life stress, while the indirect effects through parenting stress and stress from time management were not significant. H4 was thus partially confirmed. After adding the mediators to the model,

the direct association between ED and parent-child play was no longer significant, suggesting full mediation. The change in R^2 from the total effect model and the model including the mediators was $\Delta R^2=0.07$.

Concerning sociodemographic variables, mothers' education, child's age, and family size were all significantly associated with mothers' attitudes towards parent-child play.

Sample 2

The model yielded good fit, $\chi^2(22)=35.22$, $p = .037$, $\chi^2/df=1.60$, CFI = 0.98, RMSEA = 0.046, 90% CI [0.012, 0.073]. The unstandardized and standardized estimates of direct effects, standard errors and R^2 coefficients are reported in Fig. 2. The estimates of total and indirect effects as well as the estimated associations between the study variables and sociodemographic covariates are reported in the text below.

Consistent with H1, ED was significantly associated with all three measures of stress (a paths). Perceived life stress was associated with more avoidant attitude towards parent-child play, whereas parenting stress with less enjoyment (b paths, H2). Unexpectedly, time-related stress showed a small, positive association with enjoyment. Maternal ED showed significant associations with both avoidance, $B = 0.04$, $\beta=0.35$, $SE = 0.053$, $p < .001$, and enjoyment of parent-child play $B=-0.05$, $\beta = -0.23$, $SE = 0.061$, $p < .001$ (total effects, path c , H3). Concerning H4, two indirect effects were significant: ED showed a significant indirect effect on the PPQ Avoidance scale through perceived life stress, $B = 0.034$, $\beta=0.14$, $SE = 0.009$, $p = .001$, 95% CI [0.016, 0.053] and on the PPQ Enjoyment scale through parenting stress, $B=-0.029$, $\beta = -0.12$, $SE = 0.007$, $p < .001$, 95% CI [-0.044, -0.017]. Indirect effects through stress from time management on avoidance, $B = 0.01$, $\beta=0.04$, $SE = 0.006$, $p = .061$, 95% CI [-0.00, 0.024], and enjoyment, $B = 0.01$, $\beta=0.04$, $SE = 0.005$, $p = .053$, 95% CI [-0.00, 0.02] were not significant. The direct effect of maternal ED on avoidance was significant, whereas the direct effect on enjoyment was not, thus suggesting partial and full mediation respectively. Consistent with H5, mothers' attitudes and frequency

Table 3 Sample 2: Means, Standard Deviations and Pearson's Bivariate Correlations among the Study Variables

	M	SD	1	2	3	4	5	6	7	8	9
1	39.63	5.07	-								
2	-	-	0.10	-							
3	1.62	0.70	0.21**	0.02	-						
4	3.61	0.71	0.03	0.04	0.03	-					
5	47.78	13.18	-0.07	-0.07	-0.11	0.36**	-				
6	21.79	5.92	-0.08	-0.11*	-0.08	0.43**	0.63**	-			
7	65.21	15.96	-0.01	-0.13*	-0.06	0.21**	0.37**	0.36**	-		
8	10.81	3.03	0.19**	-0.04	0.23**	0.27**	0.33**	0.34**	0.20**	-	
9	14.24	3.14	-0.03	-0.13*	0.06	-0.02	-0.22**	-0.24**	-0.35**	-0.30**	-
10	3.33	1.23	-0.22**	0.08	-0.13*	-0.11	-0.18**	-0.09	-0.12	-0.60**	0.23**

Note. * $p < .05$; ** $p < .01$. For variables 1 to 6 $N = 330$; for the Parenting Stress Index (PSI) $N = 289$; for the Parent Play Questionnaire (PPQ) $N = 308$

of parent-child play were significantly related, but only the association with avoidance reached significance.

Finally, concerning sociodemographic covariates, family size showed a significant, small association with PPQ avoidance, $B = 0.84$, $\beta = 0.20$, $SE = 0.198$, $p < .001$. Child age showed a moderate, positive association with higher PPQ avoidance, $B = 1.16$, $\beta = 0.32$, $SE = 0.170$, $p < .001$ and a moderate negative association with frequency of parent-child play, $B = -0.42$, $\beta = -0.29$, $SE = 0.072$, $p < .001$. Finally, mothers' education was negatively associated with perceived stress, $B = -0.72$, $\beta = -0.10$, $SE = 0.336$, $p = .030$, and enjoyment of parent-child play, $B = -0.68$, $\beta = -0.17$, $SE = 0.210$, $p = .001$.

Discussion

After a long day of work or when very busy, employed mothers may respond differently to their child's request to play together depending on how they regulate their emotions. Based on previous research showing that ED is associated with less warmth, less optimal bonding with the child and unsupportive parenting (Hu et al., 2019; Morelen et al., 2016; Shaffer et al., 2018), in this study we examined the relationship between maternal ED and attitudes towards parent-child play in two independent samples of working mothers.

Overall, the results we obtained in the two samples were consistent in several ways. First, in both samples, mothers who reported greater emotion regulation difficulties also reported higher levels in all forms of stress compared to mothers with better emotion regulation. ED was most strongly associated with perceived life stress, whereas the associations with parenting stress and stress from time management were overall moderate. Second, in both samples, mothers' ED was significantly associated with less positive attitude towards parent-child play (even though the association was smaller in Sample 1) and consistent with H4, this relationship was mediated by mothers' levels of stress. We found that the indirect effects of ED on parent-child play attitudes through stress were overall small, but comparable with previous research (Hu et al., 2019). In Sample 1, the relationship between ED and mothers' attitude towards play was fully mediated by perceived life stress, while in Sample 2 the direct association between ED and the tendency to avoid playing with the child was smaller after accounting for the mediators, but remained significant. This suggests that other variables may mediate this relationship (Hu et al., 2019).

When examining the mediating role of the different forms of stress, our results only partially supported our hypotheses, suggesting a more complex picture. On the one

Table 4 Sample 1: Total, Direct, and Indirect Effects for the Mediation Model with Maternal Emotion Dysregulation as Independent Variable, Perceived Life Stress, Parenting Stress, and Stress from Time Management as Mediators, and Mothers' Attitude towards Parent-Child play as Outcome Variable

Model and variable level						95% CI	
	R^2	B	β	SE	t	LL	UL
a path							
Emotion dysregulation -> Life stress (PSS)	0.45	0.02	0.62	0.002	9.43***	0.02	0.03
Emotion dysregulation -> Parenting stress (PSI)	0.25	0.36	0.43	0.065	5.55***	0.23	0.49
Emotion dysregulation -> Stress Time management	0.05	0.01	0.24	0.005	2.75**	0.00	0.02
Direct effect model	0.34						
b path							
Life stress (PSS) -> Parent-child play (PPQ)		-1.59	-0.22	0.731	2.18*	-3.04	-0.15
Parental Stress (PSI) -> Parent-child play (PPQ)		-0.04	-0.14	0.025	1.73	-0.09	0.01
Time management -> Parent-child play (PPQ)		-0.33	-0.07	0.362	0.93	-1.05	0.37
c' path							
Emotion Dysregulation -> Parent-child play (PPQ)		0.01	0.03	0.024	0.38	-0.04	0.06
Covariates – sociodemographic variables							
Education Level-> Parent-child play (PPQ)		-1.29	-0.25	0.384	3.37**	-2.05	-0.53
Family size-> Parent-child play (PPQ)		-1.92	-0.30	0.449	4.29***	-2.81	-1.04
Child age-> Parent-child play (PPQ)		-1.44	-0.27	0.378	3.82***	-2.19	-0.69
Total effect model	0.27						
c path							
Emotion Dysregulation -> Parent-child play (PPQ)		-0.04	-0.19	0.019	2.39*	-0.08	-0.01
Covariates – sociodemographic variables							
Education Level-> Parent-child play (PPQ)		-1.09	-0.21	0.385	2.82**	-1.85	-0.32
Family size-> Parent-child play (PPQ)		-1.99	-0.31	0.466	4.26***	-2.91	-1.06
Child age-> Parent-child play (PPQ)		-1.54	-0.28	0.394	3.92***	-2.82	-0.76
Indirect effects							
Perceived Life Stress (PSS)		-0.03	-0.14	0.019	-	-0.09	-0.02
Stress Time Management		-0.00	-0.02	0.005	-	-0.04	0.00
Parenting Stress (PSI)		-0.02	-0.06	0.010	-	-0.04	0.00

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. $N = 145$. CI=Confidence Interval; LL=Lower Limit; UL=Upper Limit

side, perceived life stress was the only significant mediator of the relationship between ED and (less positive) attitudes towards play in Sample 1—it is worth noting that in this Sample, most items of the PPQ had a negative content and concerned the tendency to avoid playing with the child (reverse coded). Likewise, in Study 2, perceived life stress was the only significant mediator of the association between ED and avoidance—in this Sample, the avoidant attitude towards parent-child play was distinguished from a positive, enjoying one. On the other side, parenting stress was unrelated to avoidant attitude in both samples, but it emerged as the only significant mediator of the association between ED and mothers' enjoyment of parent-child play in Sample 2. In other terms, being stressed by life stressors and feeling overwhelmed leads working mothers to avoid playing with their child; in contrast, being stressed because of their parenting role is associated with lower experience of enjoyment while playing. Overall, perceived life stress and parenting stress seem to function as distinct pathways through which maternal ED exerts a detrimental impact on mothers' attitudes towards parent-child play. This finding aligns with those of previous studies finding differential

associations between the two forms of stress and parenting behavior (Barreto et al., 2024; Crnic et al., 2005). In particular, Crnic et al. (2005) found that life stress longitudinally predicted more negative aspects of parent-child interactions such as hostility and conflict, while parenting stress reduced positivity and pleasure (Crnic et al., 2005). Although it is not possible to say with certainty from our cross-sectional study and very few studies so far have considered both forms of stress, heightened feelings of overload due to life stressors may diminish mothers' resources and energies for parental tasks (Barreto et al., 2024), possibly leading to avoidance of more recreative activities such as play. In contrast, mothers experiencing higher levels of parenting stress – which is concerned with the burdens and responsibilities of the parenting role, the perception of the parent-child interaction as dysfunctional and the evaluation of the child in a more negative way – may not avoid playing as part of their duties, but they may feel less enjoyment when playing with their child.

An unsupported hypothesis concerned stress from time management. When looking at bivariate correlations, in both samples, mothers reporting more difficulties in time management were also more prone to avoid playing with

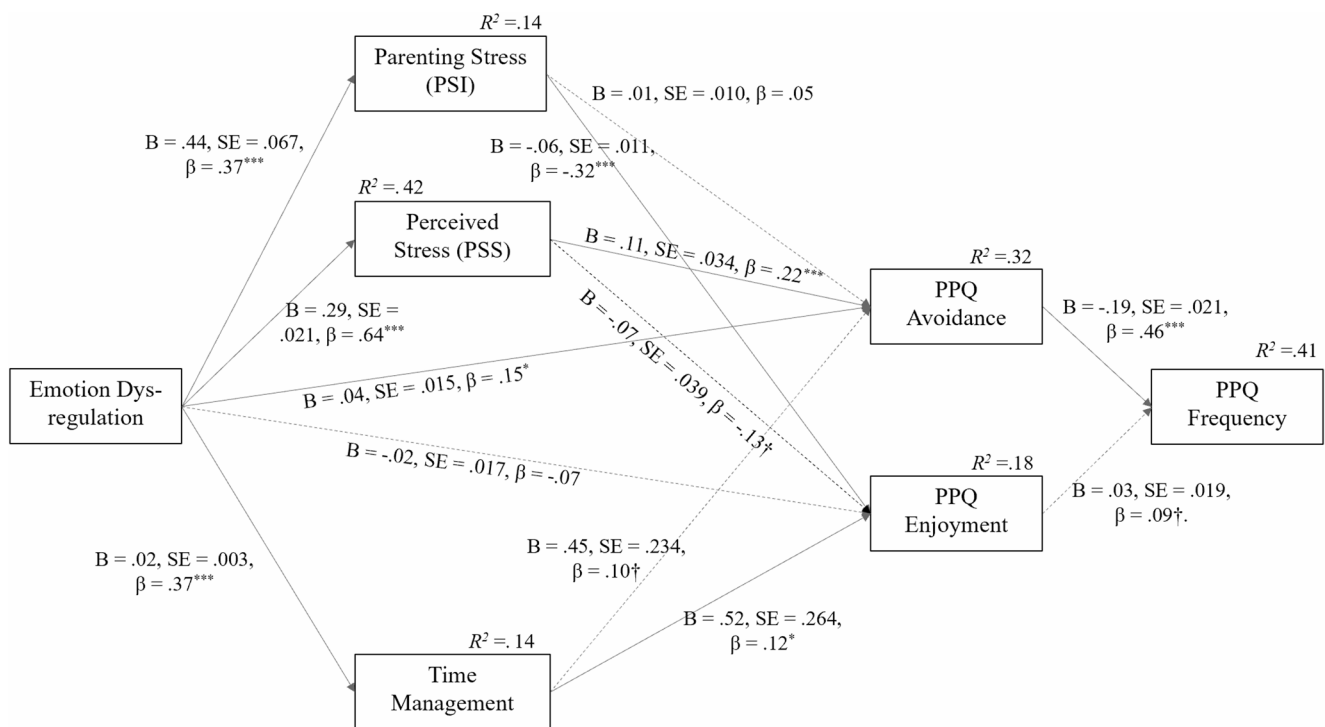


Fig. 2 Sample 2: Unstandardized and Standardized Path Coefficients, Standard Errors and R^2 Coefficients of the Direct Effects Mediation Model Testing the Relationships among the Study Variables (Emotion Dysregulation as Independent Variable, Stress Measures as Media-

tors, Frequency and Attitudes towards Parent-Child Play as Dependent Variables). Note. $^{\dagger}p < .10$; $*p < .05$; $**p < .01$; $***p < .001$. For simplicity's sake, estimates of total and indirect effects are not shown in Fig. 2 but are reported in the text

their child. However, in the mediation models (i.e., when accounting for the variance due to other forms of stress), mothers' stress due to difficulties in splitting their time was not significantly related to attitudes towards parent-child play in Sample 1, while it was *positively* associated with enjoyment of parent-child play in Sample 2. It should be noted, however, that this association was small and the correlation of time-related stress with avoidance of parent-child play was similar in size, though nonsignificant. As a possible interpretation of these contradictory associations, mothers stressed by time allocation issues may tend to report avoidant attitudes towards parent-child play because time pressure lowers their resources for parenting (Rönkä et al., 2017), but they may also enjoy more the time they manage to spend playing with their child.

Our last hypothesis concerning frequency of parent-child play was again partially supported: While a more avoidant attitude towards parent-child play was associated with lower self-reported frequency of parent-child play in the past two weeks, the association between frequency and mothers' enjoyment was small and did not reach significant in the mediation model. Thus, in our sample, an avoidant attitude was a stronger determining factor of engagement in parent-child play than the experience of enjoyment. Engaging in play may not be primarily driven by intrinsic pleasure, but rather by external factors such as perceived

parental responsibility or constraints of daily life. It should be noted, however, that our measure of frequency was a self-reported estimate, and thus our finding cannot be generalized to the actual amount of time (e.g., number of hours) spent on shared playing activities.

Finally, in both samples, sociodemographic variables showed a significant impact on mothers' attitude towards play. Employed mothers having more than one child reported to be more likely to avoid playing than mothers with single child. One possible reason is due to higher levels of parenting stress (Mikolajczak et al., 2018). However, our findings showed no significant path between family size and parenting stress. Alternatively, it may be that employed mothers having more than one child engage less in playing because the child has the opportunity to interact and play with siblings (Vandell et al., 1987). In the same vein, mothers of younger children reported to avoid less and engage more in parent-child play than mothers of preschoolers and school-aged children. This result can be explained by the fact that child autonomy and independence increase with age, and thus mothers may feel to be more entitled to avoid spending time playing with their child. Finally, we found that mothers' education level was significantly associated with attitude towards parent-child play: High-educated mothers reported less positive attitude (Sample 1) and less enjoyment (Sample 2) than low-educated mothers.

The results of the present study highlight ED as a prominent psychological factor shaping working mothers' engagement in parent-child play through multiple stress pathways. These results suggest that difficulties in regulating emotions may undermine positive parenting not only directly, but also indirectly by amplifying subjective stress experiences that reduce mothers' emotional and temporal resources available for play. From a theoretical perspective, the study contributes to the existing literature on parenting and emotion regulation suggesting that different forms of stress may operate as differentiated mediators and thus offering a more nuanced understanding of the mechanisms through which parental emotional functioning may affect parent-child interactions. From an applied perspective, our findings suggest that difficulties in emotion regulation may represent a promising target for intervention training programs (Crandall et al., 2015; Martin et al., 2017) aimed at improving employed mothers' abilities to deal with stress. Interventions that cultivate ER abilities and reduce stress may promote more positive attitudes toward parent-child play and, ultimately, more frequent and emotionally rewarding play interactions. Of note, although most research has so far mostly focused on the implications of parenting stress for parenting behavior (Barreto et al., 2024), our findings point to perceived life stress as a potential factor undermining mothers' resources for parenting tasks. Finally, although in our results stress from time management showed small and somehow contradictory associations with attitudes towards parent-child play, we believe that this form of stress deserves further attention to design tailored interventions that address the contextual stressors faced by employed mothers.

Limitations and Future Directions

Limitations of the current study include that –given the method of recruitment–a self-selection bias may have influenced the results of this research. In other words, our two samples of employed mothers may not be representative of employed mothers in general. Notably, however, the results were overall consistent across samples.

A second limitation is that the research employed a cross-sectional, rather than a prospective design, and for this reason no causal relationships can be inferred. Relatedly, the use of mediation analysis within cross-sectional designs has been criticized, since cross-sectional mediation models can lead to biased estimates of direct and indirect effects when the mediation effect occurs over time (Maxwell & Cole, 2007). More recently, however, Cain et al. (2018) have used simulation to compare the cross-sectional model with three types of longitudinal mediation models, arguing that – although multilevel models showed the highest power – cross-sectional models may provide a reasonable alternative

when resources to collect data are limited. Also, because few studies so far have simultaneously examined the variables considered in this research, cross-sectional mediations provide an efficient way to establish foundational evidence for the proposed relationships (Spector, 2019). Nonetheless, the present results should be evaluated further in future longitudinal studies, which could strengthen the validity of our findings regarding relationship between variables.

A third limitation concerns our use of self-reported measures only. Despite this, our results are consistent with those of previous studies that used observational measures of parent-child interactions (Barreto et al., 2024; Crnic et al., 2005). Relatedly, stress from time management was measured using items created ad hoc for this research and thus future studies are needed to replicate our results. Finally, following existing research examining the implications of emotion dysregulation for parenting behavior, our study employed a measure of “general” emotion dysregulation. Nonetheless, as noted by Carreras et al. (2019), future research would benefit from evaluating the implications of difficulties regulating emotions specifically related to the parenting role.

Finally, the research focused on employed mothers only. Future studies could adopt a dyadic approach and include data from both mothers and fathers. Recent research has found gendered patterns of time use and time pressure in employed parents (Craig & Brown, 2017; Craig & Mullan, 2013), and these patterns may differentially impact employed mothers' and fathers' attitudes towards parent-child play.

Conclusions

Despite the above limitations, our findings provide a contribution to our understanding of the relationship between working mothers' ED, stress, attitudes towards parent-child play and frequency of play with the child. On the one hand, our results suggest that perceived life stress and parenting stress represent distinct pathways linking emotion dysregulation and different dimensions of mothers' attitudes towards parent-child play, namely, the tendency to avoid playing with the child and the experience of enjoyment while playing. On the other, our findings add to a growing literature regarding mothers' employment as a contextual variable that may influence parenting behavior. In this regard, stress arising from time allocation issues unexpectedly showed correlations of similar strength with the two dimensions of avoidance and enjoyment of parent-child play. This result may reflect an ambivalent (i.e., simultaneously positive and negative) attitude that – in our opinion – deserves further attention. We hope that these findings could be used as hints

for interventions focused on emotion regulation to sustain working mothers in dealing with various forms of stress, since the perception of their life as overloaded seems to have detrimental implications for the time they are willing to dedicate to play with their child.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10826-026-03315-z>.

Acknowledgments The authors thank "Koinè Cooperativa Sociale Onlus" and Sarah Re for their help and support in data collection.

Funding Open access funding provided by Università Cattolica del Sacro Cuore within the CRUI-CARE Agreement. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Data Availability Data are available upon request to the first author.

Declarations

Ethical Approval This research was approved by the ethics committee of the Department of Psychology of the Università Cattolica del Sacro Cuore (CERPS), protocol number 14-22.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Conflict of Interest We have no conflict of interest to disclose.

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