



The Interpersonal Mindfulness in Parenting Scale: Psychometric Properties of the Italian Version

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Abstract

Objectives The Interpersonal Mindfulness in Parenting (IM-P) scale is a self-report questionnaire validated and adapted in several countries. This study aimed to assess the psychometric properties and factor structure of the Italian version (IM-P-IT) across three different samples of Italian parents of preschool-aged children.

Method In Study 1, 867 parents completed the IM-P-IT. In Studies 2 and 3, 561 and 928 parents filled out the IM-P-IT and self-reported questionnaires examining parental behaviors and stress.

Result The exploratory factor analysis in Study 1 identified a 22-item version of the IM-P-IT with a five-factor structure: (1) Listening with Full Attention, (2) Self-Regulation in the Parenting Relationship, (3) Emotional Awareness and Compassion for the Child, (4) Emotional Non-Reactivity in Parenting, and (5) Non-Judgmental Acceptance in Parenting. The five-factor model was confirmed in Study 2 (CFI = 0.93; RMSEA = 0.05; SRMR = 0.05) and Study 3 (CFI = 0.91; RMSEA = 0.06; SRMR = 0.06) through confirmatory factor analysis. Good internal consistency was observed (Study 1, $\alpha = 0.88$; Study 2, $\alpha = 0.89$; Study 3, $\alpha = 0.89$). In Studies 2 and 3, convergent validity was demonstrated, as interpersonal mindfulness in parenting positively correlated with positive parenting behaviors (e.g., sensitivity, consistency, engagement in activities) and negatively correlated with negative parenting behaviors (e.g., over-reactivity) and parenting stress.

Conclusions The three validation studies confirmed the reliability and validity of the Italian version of the Interpersonal Mindfulness in Parenting scale, providing a valuable tool for assessing mindful parenting in Italy for research and clinical purposes.

Keywords Mindful parenting · Italian validation · Self-report questionnaire · Parenting · Mindfulness

The UN Convention on the Rights of the Child (1989) emphasized the importance of supporting children and adolescents in reaching their full developmental potential. It recognized families as primary caregivers and called on governments and institutions to provide the necessary resources and services to enable parents to nurture and care for their

children effectively. The World Health Organization's nurturing care agenda (Black et al., 2021; WHO, 2018) promoted guidelines for early childhood development, focusing not only on nutrition or safety but also on the importance of responsive caregiving and enriching learning opportunities for young children. A key aspect of this framework was the focus on responsive caregiving within nutritional care, which suggested the need to support caregivers in observing children's cues, interpreting their needs, and responding consistently (WHO et al., 2018). These practices promote positive development and constitute protection against the various challenges children may face, whether organic, social, cultural, or environmental. In recent years, supporting parents in nurturing their children through responsive caregiving has become a key challenge.

Within this broader challenge, the concept and practice of mindful parenting offer a valuable approach to supporting

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caregivers in fostering responsive, attuned, and compassionate relationships with their children. In 1997, Kabat-Zinn and Kabat-Zinn introduced their first contribution to the field of mindful parenting with the book *Everyday Blessings: The Inner Work of Mindful Parenting*. As they later noted (Kabat-Zinn & Kabat-Zinn, 2021), an alternative title considered for the book was *Mindful Parenting: Nurturing Our Children, Growing Ourselves*. This alternative title highlights the central idea that adopting an intentional, mindful approach to parenting not only supports the child's development but also fosters personal growth in the parent. When practiced within the parent–child relationship, mindfulness has the potential to catalyze a natural unfolding of each person's capacity to grow to their fullest potential. In the book, they defined mindful parenting as “paying attention to your child and parenting in a particular way: intentionally, here and now, and nonjudgmentally” (Kabat-Zinn & Kabat-Zinn, 1997, p. 71). This concept extended mindfulness practice from an intra-personal dimension to the interpersonal dynamics of parent–child relationships. Indeed, research has shown that parents with higher levels of mindfulness can use their mindfulness skills in their relationship with their child (Kil et al., 2021). In a later definition (see Bögels & Restifo, 2014, p. 104) mindful parenting was described as “an ongoing creative process, not an endpoint” implicating an intentional and non-judgmental awareness of each moment, including being aware of a child's unique nature, feelings, and needs, being in the present moment and listening with full attention, accepting both positive and negative things or events, being aware of our reactivity and learn to respond with more kindness and greater clarity. Similar dimensions of mindful parenting were also described in the theoretical model proposed by Duncan et al. (2009), integrating findings from psychological mindfulness, mindfulness interventions, and parenting literature. They identified the following key dimensions of mindful parenting: (1) Listening with Full Attention (i.e., a combination of listening with focused attention and awareness); (2) Non-Judgmental Acceptance of Self and Child (i.e., a non-judgmental stance towards the child's traits, attributes, and behaviors, and oneself as a parent, fostering a sense of acceptance); (3) Emotional Awareness of Self and Child (i.e., parental emotional awareness within oneself and in relation to the child); (4) Self-regulation in the Parenting Relationship (i.e., self-regulation within the context of the parent–child relationship); (5) Compassion for Self and Child (i.e., empathy and compassionate concern for self and child).

Starting from the relevance of mindful parenting, some studies have developed tools to assess this competence and only two self-reported questionnaires have been validated: the Mindfulness in Parenting Questionnaire (MIPQ, McCaffrey et al., 2017) and the Interpersonal Mindfulness in Parenting scale (IM-P) (Duncan, 2007, 2025). The MIPQ was

designed for parents of children and adolescents aged 2 to 16 years (McCaffrey et al., 2017). The MIPQ authors asked content experts to provide descriptions of parents extremely high and low in mindful parenting and initially formulated 84 items, then reduced to 28 via analysis of dimensionality and fit that highlighted two dimensions: mindful discipline and being in the moment with the child. These dimensions only partially fit with the proposed theoretical definition of mindful parenting. The MIPQ was translated and validated in Croatia (Maglica et al., 2020).

The IM-P scale, developed by Duncan (2007, 2025), is based on the theoretical model and the dimensions proposed by Duncan et al. (2009). The original scale consisted of 10 items (Duncan, 2007), while the final questionnaire (Duncan, 2025), aligned with the theoretical model, included 31 items and five underlying dimensions developed from theoretical criteria (Duncan et al., 2009): Listening with Full Attention (LFA); Nonjudgmental Acceptance of Self and Child (NJASC); Self-regulation in the Parenting Relationship (SRPR); Emotional Awareness of Self and Child (EASC); and Compassion for Self and Child (CSC). The IM-P questionnaire was translated, validated, and adapted into distinct languages and cultures, revealing interesting differences in factorial structures and item compositions. Validation studies have been conducted in various regions, including Europe (Netherlands: de Bruin et al., 2014; Portugal: Moreira & Canavarro, 2017; Spain: Orue et al., 2023), West Asia (Iran: Khanipour et al., 2023), East Asia (Hong Kong: Lo et al., 2018; Korea: Kim et al., 2019; Mainland China: Pan et al., 2019), and South America (Chile: Cortthorn et al., 2022). To evaluate the dimensionality and validity of the Interpersonal Mindfulness in Parenting scale, all studies, apart from the Chilean validation, employed a two-step approach: an exploratory factor analysis (EFA) to identify the underlying structure, followed by a confirmatory factor analysis (CFA) to validate the proposed model. By contrast, the Chilean validation used a theoretical approach to combine different factors followed by a confirmatory factor analysis.

To evaluate the factorial structure using EFA, several studies targeted parents of children across a broad age range. For instance, the Hong Kong study by Lo et al. (2018) included parents of preschool, primary, and secondary school children. Similarly, the Korean study (Kim et al., 2019) and the Portuguese study (Moreira & Canavarro, 2017) assessed parents of children aged 1 to 18 years. In contrast, the study from Mainland China (Pan et al., 2019) focused on parents of children aged 7 to 18, while the Persian study (Khanipour et al., 2023) examined parents of children aged 5 to 15 years. Notably, only the Dutch and Spanish studies (de Bruin et al., 2014; Orue et al., 2023) targeted narrower age groups, focusing respectively on parents of adolescents and parents of children aged 1 to 8 years. The

inclusion of fathers in these exploratory factor analyses also varied across studies. The Dutch and Portuguese studies (de Bruin et al., 2014; Moreira & Canavarro, 2017) exclusively included mothers, whereas most other studies incorporated both mothers and fathers, though fathers generally constituted a small proportion of the samples. Notably, Pan et al. (2019) stood out for achieving a balanced sample of mothers and fathers. This study also tested for measurement invariance across parent gender, revealing a similar factorial structure for mothers and fathers.

The validated versions of the IM-P questionnaire exhibited notable differences in their factorial structures and retained items, reflecting adaptations to cultural and linguistic contexts. The Dutch study (de Bruin et al., 2014), the first to address the psychometric properties of the scale, did not confirm the original five-factor model proposed by Duncan et al. (2009). Instead, it identified a 6-factor structure with 29 items. The dimensions included: Listening with Full Attention (5 items), Compassion for Child (6 items), Non-Judgmental Acceptance of Parental Functioning (6 items), Emotional Non-Reactivity in Parenting (5 items), Emotional Awareness of Child (3 items), and Emotional Awareness of Self (4 items). Unlike the theoretical model, the original Emotional Awareness of Self and Child (EASC) dimension was divided into 2 factors. Items 3 (“*I notice how changes in my child’s mood affect my mood*”) and 6 (“*I’m aware of how my moods affect the way I treat my child*”) were removed due to poor psychometric properties.

The Portuguese version (Moreira & Canavarro, 2017) also retained 29 items, excluding Items 3 and 6. However, it differed from the Dutch version by extracting a 5-factor structure: Listening with Full Attention (5 items), Compassion for Child (6 items), Non-Judgmental Acceptance of Parental Functioning (7 items), Emotional Awareness of the Child (3 items), and Self-Regulation in Parenting (8 items). The Spanish study (Orue et al., 2023) confirmed the 5-factor structure with the 29 items identified in the Portuguese version. The consistency between these two versions was attributed to linguistic and cultural similarities between Portugal and Spain.

In the Hong Kong study (Lo et al., 2018), 8 items were removed (3, 4, 5, 6, 7, 10, 12, and 15) due to poor psychometric properties, resulting in a 4-factor structure with 23 items: Listening with Full Attention (4 items), Compassion for Child (7 items), Non-Judgmental Acceptance in Parenting (6 items), and Emotional Awareness of Parenting (6 items). The Korean study (Kim et al., 2019) generated 6 factors from 18 items (eliminated Items were 2, 4, 5, 7, 10, 14, 15, 18, 19, 20, 24, 25, and 29): Listening with Full Attention (3 items), Compassion for the Child (3 items), Non-Judgmental Acceptance of Parental Functioning (3 items), Emotional Self-Regulation (3 items), Noticing Child’s Feelings (3 items), and Insight into Effect

of Mood (3 items). The Mainland China validation (Pan et al., 2019) identified 24 items across 4 factors (Items eliminated: 5, 15, 17, 20, 23, 26, and 29): Interacting with Full Attention (7 items), Compassion and Acceptance (8 items), Self-Regulation in Parenting (6 items), and Emotional Awareness of the Child (3 items). The Persian version (Khanipour et al., 2023) proposed a 3-factor structure encompassing 28 items (eliminated Items 16, 19, and 29): Mindfulness Toward the Child (11 items), Mindfulness About Oneself (11 items), and Emotional Awareness of Parenting (6 items). Finally, the Chilean study (Corthorn et al., 2022) primarily aimed to confirm the original 5-factor structure proposed by Duncan et al. (2009) in a small sample of mothers of preschoolers. The 5-factor structure with the 31 original items was confirmed. However, a 4-factor model with better indexes of fit was proposed, eliminating Items 3 and 6, and collapsing the subscales Compassion for the Self and Child and Non-judgmental Acceptance of Self and Child into a new factor labeled Non-judgmental Acceptance and Compassion for the Self and Child. These findings highlight the variations in factorial structures across adaptations, reflecting the influence of cultural, linguistic, and methodological differences.

The IM-P, with its multiple validations, is the only worldwide self-reported questionnaire specifically designed to assess mindful parenting, demonstrating strong psychometric properties in different languages and cultures. To our knowledge, this questionnaire has not yet been translated into Italian or adapted to the Italian context despite the rapid growth of interest in mindful parenting in Italy (Guarini et al., 2022; Muratori et al., 2022). The Italian version of the IM-P will be a useful tool to assess this competence in Italian parents, with possible implications in the analysis of the effectiveness of interventions. Moreover, the Italian version could support cross-cultural comparison of mindful parenting with other countries.

The primary objective of the three studies presented here was to assess the psychometric properties and validate the Italian version of the IM-P (IM-P-IT). The first study aimed to explore the factor structure and the internal consistency of the IM-P-IT in a sample of parents of 4- to 5-year-old children. We hypothesized that the theoretical model proposed by Duncan et al. (2009) might not be fully confirmed, in line with findings from other validation studies. We also anticipated a factor structure similar to that found in other European validations (Dutch, de Bruin et al., 2014; Portuguese, Moreira & Canavarro, 2017; and Spanish, Orue et al., 2023) with high internal consistency for the total scale and acceptable scores for the subscales.

The second study aimed to validate the factor structure identified in Study 1 by conducting a confirmatory factor analysis (CFA) with a new sample of Italian parents. In

addition, Study 2 assessed convergent validity by examining the correlations between the IM-P-IT and parenting behaviors (Sansavini et al., 2025) and parenting stress (Guarino et al., 2016). We hypothesized that the factor structure identified in Study 1 would be confirmed and that the IM-P-IT would demonstrate convergent validity through significant correlations with parenting behaviors (Sansavini et al., 2025). Aligning with findings from previous validation studies (Moreira & Canavarro, 2017), we also hypothesized a negative relationship between IM-P-IT and parenting stress (Guarino et al., 2016).

Study 3 replicated the analysis of Study 2 in a larger and different sample of Italian parents to increase the generalizability of the results.

Study 1

The first study aimed to explore the factor structure of the Italian version of the IM-P (IM-P-IT) in a sample of parents of 4- to 5-year-old children, using exploratory factor analysis (EFA) with parallel analysis and Promax rotation. We also evaluated the internal consistency of the IM-P-IT, both for

each factor and the total score, and examined the correlations between the subscales and the total score.

Method

Participants and Procedure

Eligible participants were parents of children aged 4 to 5 years enrolled in municipal kindergartens in Bologna. Recruitment was facilitated by local municipalities, which promoted the initiative within kindergartens with the support of teaching staff. For each study we retained cases with no missing values for the questionnaire items. In the present study, 918 participants volunteered and 867 (94.4%) completed the questionnaire. One parent from each family completed the questionnaire online using any internet-enabled device, including smartphones, tablets, or computers. Most children ($n = 841$, 97%) attended kindergartens in the Bologna municipality, while 26 (3%) did not respond to that question. All the participants were parents of children aged 4 to 5 years ($M_{\text{age}} = 4.43$ years, $SD = 0.50$). Detailed information on the demographic characteristics of the sample is presented in Table 1.

Table 1 Sociodemographic Characteristics of Participants in Study 1, Study 2 and Study 3

	Study 1		Study 2		Study 3	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Parents						
Mothers	712	82.2	487	86.8	814	87.7
Fathers	151	17.4	69	12.3	114	12.3
Missing	4	0.4	5	0.9	/	/
Education						
Primary or lower secondary education	13	1.5	16	2.9	21	2.3
High secondary education	186	21.5	159	28.3	235	25.3
University degree or postgraduate education	661	76.2	386	68.8	670	72.2
Missing	7	0.8	/	/	2	0.2
Employment						
Full time	626	72.2	357	63.6	626	67.5
Part time	172	19.8	154	27.5	223	24.0
Homemakers	21	2.4	29	5.2	40	4.3
Students	3	0.4	3	0.5	9	1.0
Unemployed	39	4.5	18	3.2	29	3.1
Missing	6	0.7	/	/	1	0.1
Family						
Single-child families	324	38.0	240	42.8	365	39.0
Two-child families	472	55.2	286	51.0	489	52.9
Multiple-child families	58	6.8	35	6.2	73	8.0
Missing	/	/	/	/	1	0.1
Nationality						
Italian	806	93.0	512	91.3	874	94.0
Not Italian	56	6.2	47	8.4	/	/
Missing	7	0.8	2	0.3	54	6.0

Data were gathered as part of the Mind us Together (MinUTo) project, focusing on the effect of a parenting intervention (Guarini et al., 2022). For this study, we utilized the first-wave baseline data collected in December 2020–January 2021, as the participants had no prior experience with mindful parenting training. Nonetheless, we cannot exclude the possibility that parents may have had individual experiences with general mindfulness practice or other forms of parenting training.

Measure

Interpersonal Mindfulness in Parenting Scale The IM-P scale (Duncan, 2025; Duncan et al., 2009) includes 31 items rated on a 5-point Likert scale ranging from 1 (*never true*) to 5 (*always true*). It is intended to encompass 5 dimensions of mindful parenting relevant to the parent–child relationship: (a) Listening with Full Attention; (b) Non-Judgmental Acceptance of Self and Child; (c) Emotional Awareness of Self and Child; (d) Self-Regulation in Parenting Relationship; and (e) Compassion for Self and Child (for more information on the item loadings for each factor, see Table 2). Following the reversal of certain items (1, 5, 9, 10, 11, 12, 13, 14, 15, 17, 19, 23, 26, 29), the total score is derived by summing all items, where higher scores indicate greater levels of mindful parenting. The IM-P author provided original items to start the translation process in Italian. A professional translator at the Institute Accademia delle Lingue (<https://accademiadellelingue.it/en/>) translated all items from English to Italian. A different translator from the same Institute did the back-translation from Italian to English. The research group discussed and eventually reformulated items for which linguistic or cultural issues emerged either in the translation or in the back-translation process.

Data Analysis

An exploratory factor analysis using parallel analysis and Promax rotation was conducted to explore the factor structure of the Italian version of the IM-P-IT. The Kaiser–Meyer–Olkin (KMO) test and Bartlett’s test of sphericity were performed to assess the sample adequacy for this analysis.

The item loadings were assessed by calculating the marker index (MI; Gallucci & Perugini, 2007). This item selection method compared primary and secondary loadings to avoid cross-loadings and reach the clearest solution. Items exceeding the recommended MI cut-off of 0.40 (Gallucci & Perugini, 2007) are good indicators of their respective factors. Items showing an MI below the cut-off were then excluded.

To evaluate the internal consistency of the IM-P-IT, Cronbach’s alphas were calculated for each subscale and

the total score. The impact of removing each item from a subscale was assessed by comparing Cronbach’s alpha value when excluding a particular item with the final alpha value of the subscale. Corrected item-total correlations were examined and considered adequate if they were $\geq .30$, which aligns with the existing literature (Moreira & Canavarro, 2017). Correlations between the IM-P subscales and the total score were also analyzed. All analyses were performed using R software, employing the Paran package for the parallel analysis and the Psych package for the exploratory factor analysis with Promax rotation.

Results

Exploratory Factor Analysis

The Kaiser–Meyer–Olkin test ($KMO = 0.92$) and Bartlett’s test of sphericity, $\chi^2(465) = 1015.10$, $p < 0.001$, confirmed the sample’s adequacy for factor analysis. Parallel analysis indicated 5 eigenvalues greater than 1. The marker index revealed that Items 4, 7, 10, 18, and 25 had loadings below 0.40 and were thus eliminated (Table 2). These same items were eliminated from the Korean validation (Kim et al., 2019), and partially (Items 4, 7 and 10) from the Hong-Kong study (Lo et al., 2018). Additionally, Items 3 and 6 were removed due to negative inter-item correlations (Table 2), consistent with findings from the Dutch (de Bruin et al., 2014), Hong-Kong (Lo et al., 2018), and Portuguese (Moreira & Canavarro, 2017) versions.

Overall, the model explained 45% of the variance, aligning with results from other validation studies (Moreira & Canavarro, 2017; Pan et al., 2019). The observed structure for the Italian IM-P-IT differed somewhat from the hypothesized structure proposed by Duncan et al. (2009), except for the first factor, Listening with Full Attention (Items 1, 9, 13, 19, 24), which explained the 12% of the variance. The following factors and corresponding subscale names were identified for the Italian IM-P-IT: Self-Regulation in the Parenting Relationship (SRPR, Items 2, 8, 16, 20, 21), explaining 11% of the variance; Emotional Awareness and Compassion for the Child (EACC, Items 12, 22, 27, 28, 30, 31), explaining 9% of the variance; Emotional Non-Reactivity in Parenting (ENRP, Items 5, 11, 14, 29), explaining 8% of the variance; Non-Judgmental Acceptance in Parenting (NJAP, Items 15, 17, 23, 26), explaining 5% of the variance. Factor loadings, marker indices, and the comparison with the original IM-P dimensions are provided in Table 2.

Reliability Analysis and Correlation Between Scales

Adequate Cronbach’s alpha values were found for the following factors: Listening with Full Attention ($\alpha = 0.81$), Emotional Awareness and Compassion for the Child ($\alpha = 0.76$),

Table 2 Factor Loadings after a Principal Axis Factoring with Promax Rotation (Study 1)

Items	Marker Index	Original IM-P	LFA	SRPR	EACC	ENRP	NJAP
1. I find myself listening to my child with one ear because I am busy doing or thinking about something else at the same time	0.60	LFA	0.61	0.10	−0.12	−0.04	0.05
9. I rush through activities with my child without being really attentive to him/her	0.73	LFA	0.73	−0.04	0.00	0.03	−0.03
13. When I am doing things with my child, my mind wanders off and I am easily distracted	0.76	LFA	0.77	−0.05	−0.08	0.00	0.06
19. I am often so busy thinking about other things that I realize I am not really listening to my child	0.72	LFA	0.72	−0.03	0.02	0.01	0.02
24. I pay close attention to my child when we are spending time together	0.58	LFA	0.59	0.15	0.17	−0.08	−0.07
2. When I'm upset with my child, I notice how I am feeling before I take action	0.62	SRPR	0.04	0.61	−0.05	−0.11	−0.04
8. When I am upset with my child, I calmly tell him/her how I am feeling	0.47	SRPR	0.03	0.47	0.07	0.10	0.06
16. When my child does something that upsets me, I try to keep my emotions in balance	0.54	SRPR	−0.11	0.50	0.12	0.37	−0.04
20. <i>When I do something as a parent that I regret, I try to give myself a break.^a</i>	0.46	CSC	−0.03	0.44	−0.03	−0.28	0.08
21. In difficult situations with my child, I pause without immediately reacting	0.57	NJASC	0.09	0.56	−0.16	0.02	−0.06
12. It is hard for me tell what my child is feeling	0.52	EASC	0.21	−0.22	0.53	0.04	0.12
22. It is easy for me to tell when my child is worried about something	0.63	EASC	−0.11	−0.11	0.63	−0.04	0.02
27. When my child is going through a difficult time, I try to give him/her the nurturing and caring he/she needs	0.58	CSC	−0.10	0.16	0.59	0.12	−0.10
28. I try to understand my child's point of view, even when his/her opinions do not make sense to me	0.50	NJASC	0.09	0.24	0.49	−0.08	−0.06
30. I can tell what my child is feeling even if he/she does not say anything	0.59	EASC	0.08	−0.09	0.62	−0.23	0.10
31. I try to be understanding and patient with my child when he/she is having a hard time	0.58	CSC	−0.13	0.21	0.59	0.16	−0.05
3. <i>I notice how changes in my child's mood affect my mood.^a</i>	0.50	EASC	0.09	0.19	−0.01	−0.50	−0.15
5. I often react too quickly to what my child says or does	0.47	SRPR	0.17	0.14	−0.05	0.48	0.06
6. <i>I am aware of how my moods affect the way I treat my child.^a</i>	0.68	EASC	0.04	0.18	0.07	−0.67	0.03
11. How I am feeling tends to affect my parenting decisions, but I do not realize it until later	0.44	EASC	0.25	0.05	−0.01	0.46	0.05
14. When my child misbehaves, it makes me so upset I say or do things I later regret	0.52	SRPR	0.11	0.27	−0.07	0.51	0.03
29. When something my child does upsets me, I get carried away with my feelings	0.63	SRPR	0.08	0.28	−0.10	0.62	0.05
15. <i>I tend to be hard on myself when I make mistakes as a parent.^a</i>	0.59	CSC	−0.03	−0.02	−0.10	0.12	0.60
17. When times are really difficult with my child, I tend to blame myself	0.70	CSC	0.13	−0.01	−0.07	−0.01	0.71
23. I tend to criticize myself for not being the kind of parent I want to be	0.68	NJASC	0.06	0.09	0.10	0.04	0.69
26. When I am having a hard time with parenting, I feel like other parents must have an easier time of it	0.51	CSC	0.00	0.07	0.19	0.04	0.52
Items with Marker Index less than 0.40							
4. I listen carefully to my child's ideas, even when I disagree with them	0.28	NJASC	0.16	0.19	0.29	−0.02	−0.14
7. Even when it makes me uncomfortable, I allow my child to express his/her feelings	0.40	NJASC	−0.04	0.38	0.26	−0.09	−0.02
10. I have difficulty accepting my child's growing independence	0.16	NJASC	0.17	−0.09	0.15	0.06	0.04
18. When things I try to do as a parent do not work out, I can accept them and move on	0.31	NJASC	−0.09	0.31	−0.02	−0.01	0.20
25. I am kind to my child when he/she is upset	0.38	CSC	−0.03	0.37	0.19	0.21	−0.04

Factors in the original IM-P (Duncan et al., 2009): Listening with Full Attention (LFA), Self-regulation in the Parenting Relationship (SRPR), Compassion for Self and Child (CSC), NJASC Non-judgmental Acceptance of Self and Child (NJASC), Emotional Awareness of Self and Child (EASC). Factors proposed for the Italian version of IM-P-IT: Listening with Full Attention (LFA), Self-Regulation in the Parenting Relationship (SRPR), Emotional Awareness and Compassion for the Child (EACC), Emotional Non-Reactivity in Parenting (ENRP), Non-Judgmental Acceptance in Parenting (NJAP) a. Items 3, 6, 15, and 20 are italicized because they were removed due to negative inter-item correlations and low corrected item-total correlations

Emotional Non-Reactivity in Parenting ($\alpha=0.80$), and Non-Judgmental Acceptance in Parenting ($\alpha=0.77$); while the factor Self-Regulation in Parenting Relationship had a value slightly below the recommended level ($\alpha=0.66$). However, other IM-P validation studies have reported similar alpha values (Moreira & Canavarro, 2017). The Cronbach's alpha for the total scale was 0.88.

All corrected item-total correlations were above 0.30 (Table 3), except Item 15 (*"I tend to be hard on myself when I make mistakes as a parent"*) from factor 5 (Non-Judgmental Acceptance in Parenting), which showed a correlation of 0.27, and Item 20 (*"When I do something as a parent that I regret, I try to give myself a break"*) from factor 3 (Emotional Awareness and Compassion for the Child), which had a correlation of 0.10 (Table 3). Consequently, these two items were eliminated. However, their elimination did not significantly impact the alpha of the respective subscales: Non-Judgmental Acceptance

in Parenting ($\alpha=0.74$) and Self-Regulation in Parenting Relationship ($\alpha=0.66$), as well as the Cronbach's alpha for the entire scale that remained at 0.88.

The final model explained 46% of the variance (Listening with Full Attention: 12%, Self-Regulation in Parenting Relationship: 12%; Emotional Awareness and Compassion for the Child: 8%; Emotional Non-Reactivity in Parenting: 8%; Non-Judgmental Acceptance in Parenting: 6% of the variance). Other validation studies reported comparable results, with the explained variance ranging from 41% in Hong Kong (Lo et al., 2018) to 50% in Mainland China (Pan et al., 2019). The overview of the IM-P-IT items with their subscales compared to the other versions is presented in Table 4.

Finally, Table 5 presents means, standard deviations, skewness and kurtosis for all subscales and the total score, as well as correlations. All subscales were significantly and strongly correlated with the total score, and all correlations between subscales were significant (Table 5).

Table 3 Mean Scores, Standard Deviations, Ranges for the Items and Reliability Analysis in Study 1

	Mean (SD)	Range	Corrected item-total correlation	Cronbach alpha if items deleted
Listening with Full Attention				
Item 1	3.01 (0.73)	1–5	0.46	0.80
Item 9	3.78 (0.81)	1–5	0.55	0.77
Item 13	3.53 (0.84)	1–5	0.53	0.77
Item 19	3.66 (0.83)	1–5	0.57	0.76
Item 24	4.09 (0.63)	1–5	0.60	0.78
Self-Regulation in Parenting Relationship				
Item 2	3.03 (0.91)	1–5	0.33	0.62
Item 8	3.36 (0.91)	1–5	0.52	0.58
Item 16	3.51 (0.80)	1–5	0.63	0.54
Item 21	2.87 (0.86)	1–5	0.33	0.63
Emotional Awareness and Compassion for the Child				
Item 12	3.90 (0.75)	1–5	0.53	0.73
Item 22	3.91 (0.74)	1–5	0.59	0.74
Item 27	4.42 (0.61)	1–5	0.54	0.73
Item 28	4.18 (0.70)	1–5	0.52	0.71
Item 30	3.81 (0.67)	1–5	0.38	0.71
Item 31	4.19 (0.65)	1–5	0.59	0.73
Emotional Non-Reactivity in Parenting				
Item 5	3.11 (0.86)	1–5	0.59	0.77
Item 11	3.43 (0.91)	1–5	0.59	0.75
Item 14	3.76 (0.87)	1–5	0.62	0.73
Item 29	3.15 (0.85)	1–5	0.67	0.77
Not-Judgmental Acceptance in Parenting				
Item 17	2.84 (0.94)	1–5	0.33	0.72
Item 23	3.01 (1.05)	1–5	0.53	0.68
Item 26	3.33 (1.05)	1–5	0.46	0.56

Table 4 Comparative Description of IM-P-IT Items across English, Dutch, Portuguese, Hong Kong, Korean, Mainland China, Chilean, Persian and Spanish Versions

IM-P-IT subscale	Item number	English USA	Dutch Netherlands	Portuguese Portugal	Chinese Hong Kong	Korean Korea	Chinese Mainland China	Spanish Chile	Persian Iran	Spanish Spain
LFA	1	LFA	LFA	LFA	LFA	LISTEN	IFA	LFA	MC	LFA
	9	LFA	LFA	LFA	LFA	LISTEN	IFA	LFA	MM	LFA
	13	LFA	LFA	LFA	LFA	LISTEN	IFA	LFA	MM	LFA
	19	LFA	LFA	LFA	LFA	-	IFA	LFA	-	LFA
	24	LFA	LFA	LFA	CC	-	IFA	LFA	MC	LFA
SRPR	2	SRPR	EAS	SRP	EAP	-	SRP	SRPR	EAP	SRPR
	8	SRPR	EAS	SRP	EAP	EMO	SRP	SRPR	EAP	SRPR
	16	SRPR	EAS	SRP	EAP	EMO	C&A	SRPR	-	SRPR
	21	NJASC	EAS	SRP	EAP	EMO	SRP	SRPR	MM	SRPR
EACC	12	EASC	EAC	EAC	-	NOTICE	EAC	EASC	MM	EAC
	22	EASC	EAC	EAC	CC	NOTICE	EAC	EASC	MC	EAC
	27	CSC	CC	CC	CC	COMP	SRP	NJASC	MC	CC
	28	NJASC	CC	CC	CC	COMP	C&A	NJASC	MC	CC
	30	EASC	EAC	EAC	CC	NOTICE	EAC	EASC	MC	EAC
	31	CSC	CC	CC	CC	COMP	C&A	NJASC	MC	CC
ENRP	5	SRPR	ENRP	SRP	-	-	-	EASC	MM	SRPR
	11	EASC	ENRP	SRP	NJAP	INSIGHT	IFA	SRPR	MM	SRPR
	14	SRPR	ENRP	SRP	NJAP	-	IFA	SRPR	MM	SRPR
	29	SRPR	ENRP	SRP	NJAP	-	-	SRPR	-	SRPR
NJAP	17	CSC	NJAPF	NJAPF	NJAP	NJUDG	-	NJASC	MM	NJAPF
	23	NJASC	NJAPF	NJAPF	NJAP	NJUDG	-	NJASC	MM	NJAPF
	26	CSC	NJAPF	NJAPF	NJAP	NJUDG	-	NJASC	MM	NJAPF

Italian version IM-P-IT: Listening with Full Attention (LFA), Self-Regulation in Parenting Relationship (SRPR), Emotional Awareness and Compassion for the Child (EACC), Emotional Non-Reactivity in Parenting (ENRP) and Non-Judgmental Acceptance in Parenting (NJAP).

English Version IM-P (Duncan et al., 2009): Listening with Full Attention (LFA), Self-regulation in Parenting Relationship (SRPR), Compassion for Self and Child (CSC), Non-judgmental Acceptance of Self and Child (NJASC), Emotional Awareness of Self and Child (EASC).

Dutch Version (de Bruin et al., 2014): Listening with Full Attention (LFA), Compassion for the Child (CC), Non-Judgmental Acceptance of Parental Functioning (NJAPF), Emotional Non-Reactivity in Parenting (ENRP), Emotional Awareness of the Child (EAC), Emotional Awareness of Self (EAS).

Portuguese version (Moreira & Canavarro, 2017): Listening with Full Attention (LFA), Compassion for the Child (CC), Non-Judgmental Acceptance of Parental Functioning (NJAPF), Self-regulation in the Parenting (SRP), Emotional Awareness of the Child (EAC).

Hong Kong version (Lo et al., 2018): Listening with Full Attention (LFA), Compassion for the Child (CC), Emotional Awareness in Parenting (EAP), Nonjudgmental Acceptance in Parenting (NJAP).

Korean version (Kim et al., 2019): Non-judgmental Acceptance of Parental Functioning (NONJUDG), Emotional Self-regulation (EMO), Compassion for Child (COMP), Listening with Full Attention (LISTEN), Noticing Child's Feelings (NOTICE), Insight into Effect of Mood (INSIGHT)

Mainland China (Pan et al., 2019): Interacting with Full Attention (IFA), Compassion and Acceptance (C&A), Self-regulation in Parenting (SRP), Emotional Awareness of the Child (EAC).

Chilean version (Corthorn et al., 2022): Listening with Full Attention (LFA), Self-Regulation in Parenting Relationship (SRPR), Emotional Awareness of Self and Child (EASC), Non-judgmental Acceptance of Self and Child (NJASC).

Persian version (Khanipour et al., 2023): Mindfulness toward Child (MC), Mindfulness about Myself (MM), Emotional Awareness of Parenting (EAP).

Spanish Version (Orue et al., 2023): Listening with Full Attention (LFA), Self-Regulation in Parenting Relationship (SRPR), Compassion for the Child (CC), Non-Judgmental Acceptance of Parental Functioning (NJAPF), Emotional Awareness of the Child (EAC).

Discussion

The findings from our exploratory factor analysis indicated that the Italian version of the IM-P-IT (see Supplementary

1 & 2) is a reliable and valid tool for assessing mindful parenting, confirming the adequacy of the IM-P in the Italian cultural and linguistic context. Indeed, data on internal consistency revealed that reliabilities of the IM-P-IT scale

Table 5 Means, Standard Deviations, Skewness, Kurtosis and Correlations between the IM-P-IT Subscales and Total Score in Study 1, Study 2 and Study 3

	<i>M (SD)</i>	<i>Skewness</i>	<i>Kurtosis</i>	1	2	3	4	5
Study 1								
1. IM-P-IT Total Score	73.71 (9.38)	−0.12	0.03	-				
2. Listening with Full Attention	18.07 (2.91)	−0.09	0.05	0.77**	-			
3. Self-regulation in Parenting Relationship	12.77 (2.44)	−0.26	0.26	0.68**	0.32**	-		
4. Emotional Awareness and Compassion for the Child	24.40 (2.77)	−0.27	0.14	0.71**	0.48**	0.43**	-	
5. Emotional Non-Reactivity in Parenting	13.44 (2.77)	−0.08	−0.24	0.83**	0.56**	0.51**	0.41**	-
6. Non-Judgmental Acceptance in Parenting	9.18 (2.47)	−0.02	−0.14	0.63**	0.36**	0.23**	0.23**	0.49**
Study 2								
1. IM-P-IT Total Score	73.40 (9.83)	−0.02	0.05	-				
2. Listening with Full Attention	17.96 (2.95)	0.05	−0.32	0.73**	-			
3. Self-regulation in Parenting Relationship	12.83 (2.64)	−0.08	0.09	0.71**	0.36**	-		
4. Emotional Awareness and Compassion for the Child	24.36 (2.97)	−0.46	0.62	0.75**	0.47**	0.47**	-	
5. Emotional Non-Reactivity in Parenting	13.35 (2.77)	0.01	−0.27	0.85**	0.54**	0.55**	0.53**	-
6. Non-Judgmental Acceptance in Parenting	9.04 (2.60)	−0.04	−0.48	0.60**	0.28**	0.23**	0.25**	0.49**
Study 3								
1. IM-P-IT Total Score	72.80 (9.86)	−0.09	−0.07					
2. Listening with Full Attention	17.89 (3.03)	−0.12	0.01	0.76**	-			
3. Self-regulation in Parenting Relationship	12.68 (2.58)	−0.12	−0.07	0.72**	0.36**	-		
4. Emotional Awareness and Compassion for the Child	23.99 (3.01)	−0.39	0.64	0.74**	0.47**	0.51**	-	
5. Emotional Non-Reactivity in Parenting	13.29 (2.88)	−0.14	−0.24	0.84**	0.56**	0.56**	0.46**	-
6. Non-Judgmental Acceptance in Parenting	9.03 (2.46)	0.07	−0.34	0.57**	0.31**	0.19**	0.19**	0.48**

** $p < 0.001$

and subscales were very good compared to other validations (e.g., de Bruin et al., 2014; Lo et al., 2018; Pan et al., 2019).

Our results showed commonalities and differences with the original version (Duncan et al., 2009) and the other IM-P validations concerning factor structure. The exploratory factor analysis and reliability analysis suggest an Italian version of IM-P-IT consisting of 22 items divided into 5 scales: Listening with Full Attention (LFA), Self-Regulation in the Parenting Relationship (SRPR), Emotional Awareness and Compassion for the Child (EACC), Emotional Non-Reactivity in Parenting (ENRP) and Non-Judgmental Acceptance in Parenting (NJAP).

Notably, Listening with Full Attention consisted of 5 items (1, 9, 13, 19, 24) and was the only factor identical to the original proposed by Duncan et al. (2009) and to other European and Asian versions (Corthorn et al., 2022; de Bruin et al., 2014; Moreira & Canavarro, 2017; Orue et al., 2023; Pan et al., 2019). However, in the adaptation of Mainland China (Pan et al., 2019), the authors revised the name of the subscale to Interaction with Full Attention, emphasizing the interaction rather than the attention process. Subtle differences emerged with the Hong Kong version (Lo et al., 2018), where Item 24 was assigned to a different factor (Child Compassion), and with the Korean version, where Items 19 and 24 were excluded (Kim et al., 2019). By contrast, in the Persian validation, Items 1 and 24 were included

in Mindfulness Toward Child, Items 9 and 13 were assigned to Mindfulness about Myself, and Item 19 was excluded.

Concerning Self-Regulation in Parenting Relationship, the subscale consists of 4 items (2, 8, 16, 21), with 3 items (2, 8, 16) being in common with the original version (Duncan et al., 2009). All 4 items were also in common with the Spanish (Orue et al., 2023) and Chilean adaptations (Corthorn et al., 2022) and with the subscale Self-Regulation in Parenting in the Portuguese validation (Moreira & Canavarro, 2017). Moreover, 3 items out of 4 (2, 8, 21) were in common with the Self-Regulation in Parenting subscale in the Mainland China version (Pan et al., 2019). Interestingly, these 4 items (2, 8, 16, 21) formed a single factor in the Dutch validation (de Bruin et al., 2014), though labeled Emotional Awareness of Self, and they converged in the Hong Kong adaptation (Lo et al., 2018) into a broader subscale labeled Emotional Awareness in Parenting. Three of these items (8, 16, 21) constituted also the factor Emotional Self-Regulation in the Korean version (Kim et al., 2019).

The Emotional Awareness and Compassion for the Child was a subscale consisting of 6 items (12, 22, 27, 28, 30, 31). The 3 items (12, 22, 30), focused on the emotional awareness of the child, were in common with the Emotional Awareness of Self and Child of the original version (Duncan et al., 2009) and in the Chilean adaptation (Corthorn et al., 2022). The same items were also present in

the subscale labeled Emotional Awareness of the Child in the Dutch (de Bruin et al., 2014), Portuguese (Moreira & Canavarro, 2017), Spanish (Orue et al., 2023), and Mainland China validations (Pan et al., 2019) and with the subscale Noticing Child's Feeling in the Korean adaptation (Kim et al., 2019). The remaining Items 27, 28, and 31 were hypothesized as a single factor labeled Compassion for Self and Child in the original version (Duncan et al., 2009) and predominantly loaded onto Child Compassion, Compassion for Child, or Compassion and Acceptance in most validations (Dutch, de Bruin et al., 2014; Portuguese, Moreira & Canavarro, 2017; Hong Kong, Lo et al., 2018; Korean, Kim et al., 2019; Spanish, Orue et al., 2023; Mainland China, Pan et al., 2019). To integrate both the emotional awareness and compassion dimensions, we named this factor Emotional Awareness and Compassion for the Child. Notably, all items included in the subscale Emotional Awareness and Compassion for the Child of the Italian version, except Item 12, were included in the subscale labeled Mindfulness toward Child in the Persian version (Khanipour et al., 2023).

The Emotional Non-Reactivity in Parenting subscale, including Items 5, 11, 14, and 29, was fully aligned with the Dutch validation (de Bruin et al., 2014). However, this factor was not present in the original version and most validations. Indeed, the Items 5, 11, 14, and 29 in the original English version and in other studies were included in broader factors concerning parenting such as Self-Regulation in Parenting (Moreira & Canavarro, 2017), Self-Regulation in Parenting Relationship (Corthorn et al., 2022; Duncan et al., 2009; Orue et al., 2023), Non-Judgmental Acceptance in Parenting (Lo et al., 2018), Mindfulness about Myself (Khanipour et al., 2023) or Interacting with Full Attention (Pan et al., 2019).

The Non-Judgmental Acceptance in Parenting factor included 3 items (17, 23, 26) which differed from the original version (Duncan et al., 2009). However, these items were included in the Hong-Kong Non-Judgmental Acceptance in Parenting factor (Lo et al., 2018), and were part of the subscale Non-Judgmental Acceptance of Parental Functioning of several validations (de Bruin et al., 2014; Moreira & Canavarro, 2017; Orue et al., 2023; Kim et al., 2019). The 3 items were incorporated into the broader subscale Non-Judgmental Acceptance of Self and Child (Corthorn et al., 2022) and into the Mindfulness about Myself subscale (Khanipour et al., 2023).

Study 2

The second study aimed to validate the 5-factor structure identified in Study 1 by conducting a confirmatory factor analysis (CFA) with a separate sample of Italian parents.

Additionally, the study assessed convergent validity by examining the correlation between the IM-P-IT total score and parenting behaviors, assessed by the CECPAQ-IT (Verhoeven et al., 2017; the Italian version, Sansavini et al., 2025), and parenting stress, measured using the Parental Stress Index Short Form Fourth Edition (PSI-4 SF; Abidin, 1997; Italian version, Guarino et al., 2016).

Method

Participants and Procedure

Eligible participants were parents of children aged 4 to 5 years enrolled in municipal kindergartens in Bologna and Ravenna. Recruitment was facilitated by local municipalities and parents completed the questionnaire online using any internet-enabled device, including smartphones, tablets, or computers. In the present study, 658 participants volunteered. Participants with at least one missing value on one item of at least one of the three questionnaires were 97. However, the scale-specific response rates varied across scales (IM-P-IT: $n = 575$, 87.4%; CECPAQ-IT: $n = 636$, 96.7%; PSI-4 SF: $n = 572$, 86.9%). The final sample consisted of 561 participants (85.3%). Regarding the children, 262 (46.7%) were female and 296 (52.8%) were male, with three respondents (0.5%) not providing an answer. Most of the children attended kindergarten in the Bologna municipality ($n = 374$, 66.7%), followed by Ravenna municipality ($n = 185$, 33%), with two children (0.4%) coming from other municipalities.

All participants were parents of children aged 4 to 5 years ($M_{age} = 4.28$ years, $SD = 0.45$). Data were gathered as part of the Mind us Together (MinUTo) project, we utilized baseline data from the second wave, collected in November 2021, when the participants had no prior experience with mindful parenting training. Detailed information on the demographic characteristics of the Study 2 sample is presented in Table 1.

Measures

Interpersonal Mindfulness in Parenting Scale (Italian Version)

IM-P-IT See Study 1 and Supplementary 1 and 2. In Supplementary 1, items with reverse scores are indicated, as well as the items included in each subscale score. The total score is calculated by summing all items, while subscale scores are calculated by summing the items within each subscale.

Comprehensive Early Childhood Parenting Questionnaire-Italian Version (CECPAQ-IT)

The CECPAQ-IT (Verhoeven et al., 2017; the Italian version, Sansavini et al., 2025) assesses 5 dimensions of parenting – Support, Stimulation, Structure, Harsh Discipline, and Positive Discipline – through 54 items regarding parenting behaviours. Parents

are asked to evaluate the likelihood of the described behavior on a 6-point Likert scale (1 = *Never* to 6 = *Always*). For 9 Items (14–23), parents rely on a 6-point scale anchored on one effective and one ineffective parenting response. The CECPAQ subscales showed high consistency in the Italian validation (Support, $\alpha = 0.86$; Stimulation, $\alpha = 0.76$; Structure, $\alpha = 0.72$; Harsh Discipline, $\alpha = 0.85$; and Positive Discipline, $\alpha = 0.73$; Sansavini et al., 2025).

Parenting Stress Index Short Form Fourth Edition (PSI-4 SF) The PSI-4 SF (Abidin, 1997; Italian version, Guarino et al., 2016) is a widely used self-report questionnaire to assess stress related to the parenting role. Parental stress is assessed by 36 items divided into 3 subscales providing the respective scores: 1) Parental Distress (PD; level of distress resulting from the demands of childrearing); 2) Parent–Child Dysfunctional Interaction (P-CDI; dissatisfaction with parent–child interaction); 3) Difficult Child (DC; perception of the child’s self-regulatory abilities). The Total Stress score (total score of parental distress given by the sum of all items) is also computed. Items are answered on a 5-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*). The PSI-4 SF Total Stress Scale showed high internal consistency in the Italian validation ($\alpha = 0.80$ for Parental Distress; $\alpha = 0.81$ for Parent–Child Dysfunctional Interaction; $\alpha = 0.72$ for Difficult Child, and $\alpha = 0.89$ for Total Stress; Guarino et al., 2016).

Data Analysis

A CFA using maximum likelihood estimation was conducted in R software (Lavaan package) to test the adequacy of the factor structure found in Study 1. Because the chi-square index is very sensitive to sample size and may overestimate the lack of model fit, the assessment of fit was based on four additional indicators: the goodness of fit index (GFI), the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residual (SRMR). Criteria for adequate and good model fit were CFI values ≥ 0.90 (adequate) and ≥ 0.95 (good), RMSEA values ≤ 0.08 (adequate) and ≤ 0.06 (good), and SRMR values ≤ 0.10 (adequate) and ≤ 0.08 (good), respectively (Browne and Cudeck, 1992; Hu and Bentler, 1999). The relative chi-squared (χ^2/df) was also reported, with values < 5 suggestive of good fit. Convergent validity was examined by calculating correlations between IM-P-IT, CECPAQ-IT (Sansavini et al., 2025) and PSI-4 SF (Guarino et al., 2016). In line with the Spanish adaptation (Orue et al., 2023), two alternative models were tested: (1) a model specifying 5 correlated latent factors, and (2) a hierarchical model in which the 5 dimensions of mindful parenting were represented as first-order factors loading onto a single overarching second-order mindful parenting factor.

Results

Confirmatory Factor Analysis

The correlated 5-factor model presented an acceptable fit to the data, $\chi^2(179) = 415.52$, $p < 0.001$; $\chi^2/df = 2.27$; CFI = 0.93; RMSEA = 0.05; SRMR = 0.05. Specifically, the χ^2/df ratio of 2.27 was within the acceptable range, suggesting a reasonable fit between the hypothesized model and the observed data. The Comparative Fit Index (CFI) of 0.93 exceeded the commonly accepted threshold of 0.90, indicating a good fit. The Root Mean Square Error of Approximation (RMSEA) value of 0.05 fell below the 0.06 threshold, suggesting a close fit to the data, and the Standardized Root Mean Square Residual (SRMR) value of 0.05 was below the 0.08 threshold, indicating a good fit. All the standardized factor loadings were significant ($p < 0.001$), ranging from 0.51 (Item 1) to 0.81 (Item 26). This indicates that all items significantly contributed to their respective factors, with factor loadings reflecting the strength of these contributions (Fig. 1). Specifically, loadings for each factor were as follows: Factor 1 (LFA) loadings ranged from 0.51 (Item 1) to 0.76 (Item 13); Factor 2 (SRPR) loadings ranged from 0.54 (Item 2) to 0.76 (Item 16); Factor 3 (EACC) loadings ranged from 0.57 (Item 22) to 0.72 (Item 31); Factor 4 (EAP) loadings ranged from 0.64 (Item 11) to 0.74 (Item 29); and Factor 5 (NJAP) loadings ranged from 0.63 (Item 17) to 0.81 (Item 26). The standardized covariance values between the factors were all significant ($p < 0.001$, Fig. 1), ranging from 0.32 (EACC and NJAP) to 0.75 (SRPR and NJAP), suggesting that while the factors are strongly correlated, they remain distinct from one another.

The second-order hierarchical model also showed an overall acceptable, though slightly weaker, fit to the data: $\chi^2(204) = 552.50$, $p < .001$; $\chi^2/df = 2.71$; CFI = 0.92; RMSEA = 0.06; SRMR = 0.06. The χ^2/df ratio of 2.71 was still within the acceptable range, though higher than that of the correlated model, indicating a slight decline in model fit. Similarly, fit indices, such as CFI and RMSEA, were slightly lower than those of the five-factor model but remained within commonly accepted thresholds, suggesting that the hierarchical model still provided an acceptable representation of the data. All standardized loadings of the 5 first-order factors on the second-order Mindful Parenting factor were statistically significant ($p < .001$), ranging from 0.56 (NJAP) to 0.97 (EAP). Importantly, a Chi-squared difference test was conducted to compare the two models. The result indicated a statistically significant worsening of fit in the second-order model compared to the correlated 5-factor model: $\Delta\chi^2(5) = 46.12$, $p < .001$. This suggests that the correlated factor model provided a significantly better fit to the observed data than the hierarchical model.

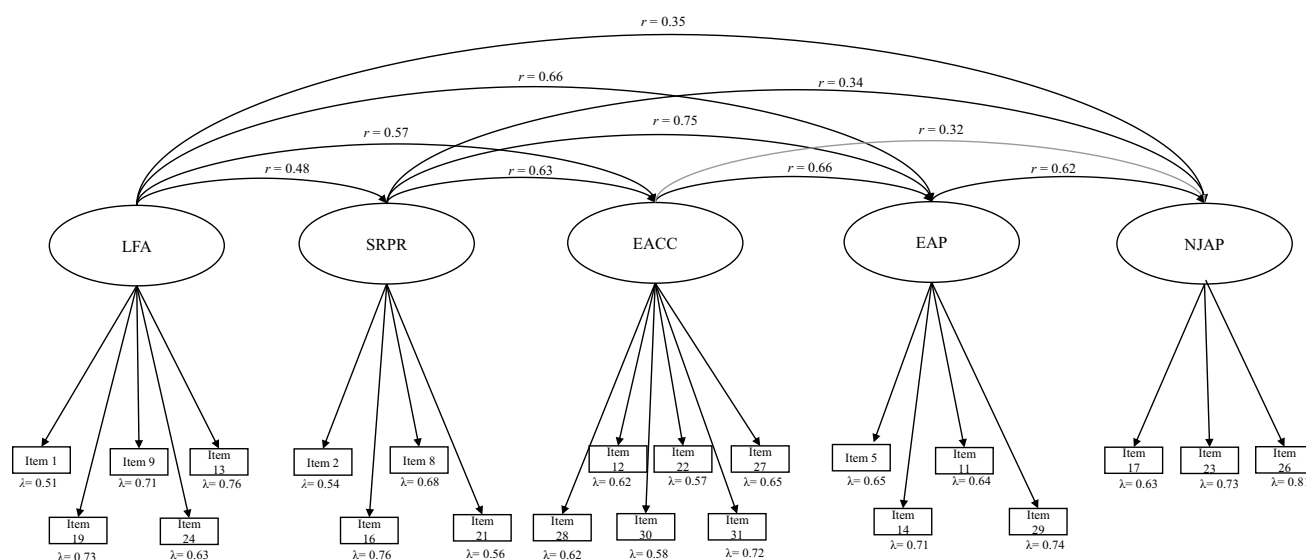


Fig. 1 Five-factor Structure of the IM-P-IT in Study 2

Internal Consistency

Adequate Cronbach's alpha values were found for the total score ($\alpha = 0.89$) and each factor: LFA ($\alpha = 0.80$), SRPR ($\alpha = 0.73$), EACC ($\alpha = 0.79$), ENRP ($\alpha = 0.78$), and NJAP ($\alpha = 0.76$). Finally, correlations between the IM-P-IT subscales and the total score were all significant (Table 5).

Convergent Validity

First, both the CECPAQ-IT and the PSI-4 SF confirmed their adequate internal consistency in our sample. Specifically, for the CECPAQ-IT, adequate reliability was found for the subscales Support ($\alpha = 0.86$), Structure ($\alpha = 0.72$), Stimulation ($\alpha = 0.74$), and Harsh Discipline ($\alpha = 0.85$), and modest reliability for Positive Discipline ($\alpha = 0.69$). Concerning the PSI-4 SF in our sample, the reliability was high: Parental Distress ($\alpha = 0.84$), Parent–Child Dysfunctional Interaction ($\alpha = 0.83$), Difficult Child ($\alpha = 0.82$), Total Stress ($\alpha = 0.91$).

As shown in Table 6, the IM-P-IT subscales and total score showed significant positive correlations with four CECPAQ-IT subscales (Support, Stimulation, Structure, and Positive Discipline) with very few exceptions (Non-Judgmental Acceptance in Parenting and Stimulation and Non-Judgmental Acceptance in Parenting and Positive Discipline), and negative correlations with the CECPAQ-IT subscale Harsh Discipline. The correlations were mostly moderate (from 0.3 to 0.6). As for the PSI-4-SF, the IM-P-IT subscales and total score exhibited significant negative correlations with the three subscales and the Total Stress scale. Almost all the correlations were in the moderate range (from 0.3 to 0.6).

Discussion

In summary, the CFA results indicated that the correlated 5-factor model provides a good fit to the data, with all factors and items demonstrating significant contributions. The significant covariances among factors further supported the theoretical structure of the model. These results suggested that the 5-factor model is a valid and reliable representation of the underlying constructs measured by the scale. Although the hierarchical model also demonstrated an acceptable fit, the results showed a significant reduction in fit compared to the correlated model, indicating that the use of the 5-factors model is the most recommended in line with a previous study (Orue et al., 2023). Nevertheless, the significant loadings of the 5 dimensions on the second-order factor justify the use of the total score.

Supporting the convergent validity of the IM-P-IT, we found significant relationships with CECPAQ-IT and PSI-4 SF. Indeed, high scores in interpersonal mindfulness in parenting were highly correlated with behaviors regarding parental support (high sensitivity, responsiveness and affection), structure (consistency in providing an organized environment), stimulation (engagement of children in learning activities), and positive discipline (disciplinary techniques that promote positive child behaviors), and were negatively correlated with parental harsh discipline (physical and verbal punishment and psychological control). The PSI 4-SF confirmed the negative relationship between interpersonal mindfulness in parenting and parenting stress. For a detailed discussion of convergent validity, see the General Discussion section, where evidence supporting the convergence of our measures with related constructs is thoroughly examined.

Table 6 Correlations between the IM-P-IT, CECPAQ-IT and PSI-4 SF in Study 2 and Study 3

	IM-P-IT Total Score	LFA	SRPR	EACC	ENRP	NJAP
Study 2						
CECPAQ-IT Support	0.59***	0.38***	0.38***	0.69***	0.46***	0.24***
CECPAQ-IT Stimulation	0.29***	0.30***	0.23***	0.27***	0.23***	0.02
CECPAQ-IT Structure	0.54***	0.39***	0.39***	0.31***	0.56***	0.32***
CECPAQ-IT Harsh discipline	−0.65***	−0.44***	−0.54***	−0.49***	−0.64***	−0.29***
CECPAQ-IT Positive Discipline	0.29***	0.26***	0.27***	0.33***	0.20***	−0.04
PSI-4 SF PD	−0.49***	−0.35***	−0.26***	−0.36***	−0.40***	−0.45***
PSI-4 SF P-CDI	−0.53***	−0.30***	−0.30***	−0.45***	−0.50***	−0.41***
PSI-4 SF DC	−0.43***	−0.25***	−0.21***	−0.37***	−0.42***	−0.31***
PSI-4 SF Total Stress	−0.57***	−0.35***	−0.30***	−0.46***	−0.52***	−0.46***
Study 3						
CECPAQ-IT Support	0.56***	0.35***	0.47***	0.69***	0.34***	0.16***
CECPAQ-IT Stimulation	0.29***	0.25***	0.29***	0.38***	0.12***	0.01
CECPAQ-IT Structure	0.56***	0.42***	0.38***	0.41***	0.52***	0.31***
CECPAQ-IT Harsh discipline	−0.61***	−0.39***	−0.49***	−0.43***	−0.60***	−0.29***
CECPAQ-IT Positive Discipline	0.39***	0.30***	0.38***	0.49***	0.19***	0.01
PSI-4 SF PD	−0.49***	−0.35***	−0.25***	−0.27***	−0.46***	−0.49***
PSI-4 SF P-CDI	−0.57***	−0.38***	−0.34***	−0.45***	−0.47***	−0.44***
PSI-4 SF DC	−0.48***	−0.31***	−0.28***	−0.38***	−0.42***	−0.38***
PSI-4 SF Total Stress	−0.60***	−0.41***	−0.34***	−0.42***	−0.53***	−0.52***

Italian version IM-P-IT: Listening with Full Attention (LFA), Self-Regulation in Parenting Relationship (SRPR), Emotional Awareness and Compassion for the Child (EACC), Emotional Non-Reactivity in Parenting (ENRP) and Non-Judgmental Acceptance in Parenting (NJAP). Parental Stress Index Short Form Fourth Edition (PSI-4 SF): Parental Distress (PD); Parent–Child Dysfunctional Interaction (P-CDI); Difficult Child (DC). *** $p < 0.001$

Study 3

The goal of the third study was to confirm the adequacy of the 5-factor structure found in Study 2 through a new confirmatory factor analysis (CFA) in a larger and different sample of Italian parents in the Emilia-Romagna region and to examine the convergent validity by computing the correlation between the IM-P-IT total score and parenting behaviors, assessed by the CECPAQ-IT (Verhoeven et al., 2017; the Italian version, Sansavini et al., 2025), and parenting stress, measured using the Parenting Stress Index, Short Form, Fourth Edition (PSI-4 SF; Abidin, 1997; Italian version, Guarino et al., 2016). The findings of the third study aimed to validate the robustness of the results obtained in Study 2, collected across a broader geographic area.

Method

Participants and Procedure

Eligible participants were parents of children aged 4 to 5 years enrolled in municipal kindergartens in the Emilia-Romagna Region. Recruitment was facilitated by local municipalities and parents completed the questionnaire online using any internet-enabled device, including

smartphones, tablets, or computers. For Study 3, 1012 families volunteered with 928 families (91.7%) completing the questionnaire with no missing items. By contrast, 84 participants (8.3%) with at least one missing value were excluded. However, the scale-specific response rates varied across scales (IM-P-IT: $n = 939$, 92.9%; CECPAQ-IT; $n = 990$, 97.8%; PSI-4 SF: $n = 931$, 92%).

Concerning the children, 419 were female (45.2%) and 504 were male (54.3%), with five respondents (0.5%) not providing an answer. Children attending kindergarten in Bologna municipality were 522 (56.2%), followed by Ravenna ($n = 126$, 13.6%), Rimini ($n = 104$, 11.2%), Forlì ($n = 75$, 8.1%), Cesena ($n = 72$, 7.8%), other municipalities ($n = 29$, 3.1%). All participants were parents of children aged from 4 to 5 years ($M_{age} = 4.30$ years, $SD = 0.46$). Data were collected as part of the Mind us Together (MinUto) project, we utilized baseline data from the third wave, collected in fall-winter 2022, and the participants had no prior experience with mindful parenting training. Detailed information on the demographic characteristics of the sample is presented in Table 1.

Measures

The questionnaires were described in Study 2.

Data Analysis

The plan of analysis was the same as that of Study 2, except for the exclusion of the second-order hierarchical model.

Results

Confirmatory Factor Analysis

The correlated five-factor model presented an acceptable fit to the data, $\chi^2(179) = 705.21$, $p < 0.001$; $\chi^2/df = 3.93$; CFI = 0.91; RMSEA = 0.06; SRMR = 0.06. These measures of fit indicated that the model adequately represented the data. The Comparative Fit Index (CFI) of 0.91 exceeded the commonly accepted threshold of 0.90, indicating a good fit. The Root Mean Square Error of Approximation (RMSEA) value of 0.06 suggested a close fit to the data, and the Standardized Root Mean Square Residual (SRMR) value of 0.06 was below the 0.08 threshold, indicating a good fit. All the standardized factor loadings were significant ($p < 0.001$), ranging from 0.46 (Item 12) to 0.82 (Item 26) (Table 7). Concerning the covariances between factors, they were all significant ($p < 0.001$). The covariances were as follows: Factor 1 (LFA) with Factor 2 (SRPR) was 0.48, Factor 1 (LFA) with Factor 3 (EACC) was 0.57, Factor 1 (LFA) with Factor 4 (ENRP) was 0.67,

Factor 1 (LFA) with Factor 5 (NJAP) was 0.42; Factor 2 (SRPR) with Factor 3 (EACC) was 0.71, Factor 2 (SRPR) with Factor 4 (ENRP) was 0.75, Factor 2 (SRPR) with Factor 5 (NJAP) was 0.31; Factor 3 (EACC) with Factor 4 (ENRP) was 0.57, Factor 3 (EACC) with Factor 5 (NJAP) was 0.28; and Factor 4 (ENRP) with Factor 5 (NJAP) was 0.63.

Internal Consistency

Adequate Cronbach's alpha values were found for the total score ($\alpha = 0.89$) and for each factor: Listening with Full Attention ($\alpha = 0.82$), Self-Regulation in Parenting Relationship ($\alpha = 0.71$), Emotional Awareness and Compassion for the Child ($\alpha = 0.78$), Emotional Non-Reactivity in Parenting ($\alpha = 0.82$), and Non-Judgmental Acceptance in Parenting ($\alpha = 0.70$). Finally, correlations between the IM-P-IT subscales and total score were all significant (see Table 5 for correlations between the IM-P-IT subscales and the total score, along with means, standard deviations, skewness, and kurtosis).

Convergent Validity

The CECPAQ-IT showed adequate reliability for all the subscales: Support ($\alpha = 0.87$), Structure ($\alpha = 0.70$), Stimulation ($\alpha = 0.78$), and Harsh Discipline ($\alpha = 0.84$), and Positive Discipline ($\alpha = 0.78$). The PSI-4-SF subscales and Total Stress scale demonstrated good reliability, with Parental Distress achieving an alpha of 0.87, the Parent–Child Dysfunctional Interaction scale of 0.82, the Difficult Child scale of 0.82, and the Total Stress scale of 0.92.

As reported in Table 6, the IM-P-IT subscales exhibited significant positive correlations with four CECPAQ-IT subscales (Support, Stimulation, Structure, and Positive Discipline) with few exceptions regarding Non-Judgmental Acceptance in Parenting Relationship, and negative correlations with the subscale Harsh Discipline. Correlations were mostly moderate (0.3 to 0.6). The IM-P-IT subscales resulted significantly and negatively associated with the three subscales and the total scale of the PSI-4-SF, with most correlations ranging from 0.3 to 0.6.

Discussion

To conclude, the CFA results for this new sample, distinct from Study 2, confirmed that the correlated 5-factor model provides a good fit for the data. This suggested that the model is valid and reliable across different samples in Italy, increasing the possible generalization of the results. Convergent validity was also confirmed in this study.

Table 7 Results of CFA for the Five-factor Solution (Study 3)

	LFA	SRPR	EACC	ENRP	NJAP
Item 1	0.61	-	-	-	-
Item 2	-	0.51	-	-	-
Item 5	-	-	-	0.67	-
Item 8	-	0.62	-	-	-
Item 9	0.74	-	-	-	-
Item 11	-	-	-	0.72	-
Item 12	-	-	0.46	-	-
Item 13	0.71	-	-	-	-
Item 14	-	-	-	0.74	-
Item 16	-	0.78	-	-	-
Item 17	-	-	-	-	0.54
Item 19	0.76	-	-	-	-
Item 21	-	0.55	-	-	-
Item 22	-	-	0.49	-	-
Item 23	-	-	-	-	0.64
Item 24	0.63	-	-	-	-
Item 26	-	-	-	-	0.82
Item 27	-	-	0.57	-	-
Item 28	-	-	0.66	-	-
Item 29	-	-	-	0.80	-
Item 30	-	-	0.56	-	-
Item 31	-	-	0.74	-	-

General Discussion

The three validation studies confirmed the reliability and validity of the Italian version (IM-P-IT) of the IM-P questionnaire, providing a useful tool for assessing mindful parenting in Italy. The Italian factorial structure of the IM-P-IT comprised 22 items and 5 factors, showing similarities and differences compared to the theoretical model proposed by Duncan et al. (2009) in the original version and subsequent adaptations. In this section, we discuss the items deleted in the Italian version and the factor structure we identified. Indeed, even if common dimensions were confirmed, some items were combined into different subscales. We also discuss internal consistency and convergent validity compared to the other validations.

The nine items from the IM-P-IT were removed for three main reasons. The first group included Item 3 (“I notice how changes in my child’s mood affect my mood”) and Item 6 (“I am aware of how my moods affect the way I treat my child”) removed due to negative inter-item correlations. Notably, these items were also removed from the Dutch version (de Bruin et al., 2014) due to their low psychometric properties: Item 3 for its low inter-item correlation, as in our study, and Item 6 due to a low factor loading. In the Portuguese and Spanish versions (Moreira & Canavarro, 2017; Orue et al., 2023), these two items loaded onto a single factor labeled Emotional Awareness of Self, which was later excluded because of the low reliability. In the original version (Duncan et al., 2009), these items were part of the factor Emotional Awareness of Child and Self and represented the parent-related aspects of the construct. It was likely that these two items reflected elements of parental reflective functioning, a broader skill associated with mindful parenting (Huynh et al., 2024) but conceptually distinct from the other items in the scale.

The second group included Items 4, 7, 10, 18, and 25, which were removed due to a marker index value below 0.40. These items had low and diffuse factor loadings across multiple factors, which made it difficult to assign them to a single factor. For example, Item 4 (“I listen carefully to my child’s ideas, even when I disagree with them”) loaded onto Listening with Full Attention, Self-Regulation in the Parenting Relationship, and Emotional Awareness and Compassion for the Child. The first part of item 4 primarily related to listening, while the second part referred to the parenting relationship and emotional awareness of the child, which likely contributed to its diffuse loadings. A diffuse factor loading of some items was evident in the Dutch adaptation (de Bruin et al., 2014). Indeed, as shown in Table 2 (p. 203), even if Item 4 was included in the subscale Child Compassion with a factor loading of 0.528, high factor loadings were found for the other subscales (0.508 for Listening with Full Attention

and 0.511 for Emotional Awareness of Self). Unfortunately, factor loadings for all factors were not reported in several validation papers.

The last group consisted of items removed due to low corrected item-total correlations. Item 15 (“I tended to be hard on myself when I make mistakes as a parent”), which loaded onto the factor Non-Judgmental Acceptance in Parenting, and Item 20 (“When I do something as a parent that I regret, I try to give myself a break”), which was included in the subscale Self-Regulation in the Parenting Relationship, were both eliminated because of low item-total correlations that reduced the reliability of their respective subscales. Item 15 was also excluded in the Hong Kong version (Lo et al., 2018), while the Korean validation (Kim et al., 2019) removed both items due to low factor loadings. In the original version (Duncan et al., 2009), Items 15 and 20 were part of the Compassion for Self and Child scale and addressed the parent’s compassion toward their own parenting experiences.

The factor structure of the IM-P-IT, consisting of 22 items, was divided into five subscales: Listening with Full Attention, Self-Regulation in the Parenting Relationship, Emotional Awareness and Compassion for the Child, Emotional Non-Reactivity in Parenting, and Non-Judgmental Acceptance in Parenting. Listening with Full Attention was a factor common to both the theoretical model proposed by Duncan et al. (2009) and other validations (de Bruin et al., 2014; Moreira & Canavarro, 2017; Orue et al., 2023; Pan et al., 2019; Corthorn et al., 2022), with only subtle differences noted (as discussed in Study 1).

Regarding Self-Regulation in Parenting Relationship, this subscale aligned with the theoretical framework (Duncan et al., 2009) and several validations (Corthorn et al., 2022; Moreira & Canavarro, 2017; Orue et al., 2023; Pan et al., 2019). However, in the IM-P-IT adaptation this subscale consisted of a limited number of items, focusing on positive self-regulation strategies that parents use during a negative child-parent interaction (e.g., “When I’m upset with my child, I notice how I am feeling before I take action”). In contrast, some items from the theoretical framework (e.g., “I often react too quickly to what my child says or does”), that were part of the Self-Regulation in Parenting Relationship scale, loaded onto another factor in the IM-P-IT, particularly in the Emotional Non-Reactivity in Parenting factor. These items were primarily linked to the parents’ difficulty pausing and reflecting before reacting when negative emotions arose during child-parent interactions. To reflect this, we labeled the factor Emotional Non-Reactivity in Parenting, considering these items to be reversed. Interestingly, in other validations, the Self-Regulation in Parenting Relationship subscale of the original theoretical model (Duncan et al., 2009) was split into two different factors, similarly to our validation.

For example, in the Dutch validation (de Bruin et al., 2014), the items from the Self-Regulation in Parenting Relationship subscale in the theoretical model (Duncan et al., 2009) were split into two different factors, aligning with the findings of the Italian validation. A similar trend was observed in the Hong Kong adaptation (Lo et al., 2018). By contrast, other validations (Moreira & Canavarro, 2017; Orue et al., 2023) confirmed the original Self-Regulation in Parenting Relationship factor as proposed in the theoretical framework.

The Emotional Awareness and Compassion for the Child factor emerged in our Italian validation aligned with the Mindfulness toward Child subscale in the Persian version (Khanipour et al., 2023). As suggested by the label of this subscale in the Italian validation, this factor primarily focused on the child at two different levels: emotional awareness and compassion. The items related to emotional awareness were consistent with the Emotional Awareness of Self and Child of the original version (Duncan et al., 2009) and the Chilean adaptation (Corthorn et al., 2022), as well as with the subscale labeled Emotional Awareness of the Child in several other validations (de Bruin et al., 2014; Moreira & Canavarro, 2017; Spanish; Orue et al., 2023; Pan et al., 2019) and with the Noticing Child's Feeling subscale (Kim et al., 2019). The items related to compassion predominantly loaded onto the Compassion for Self and Child subscale in the original version (Duncan et al., 2009) and onto subscales such as Child Compassion, Compassion for Child or Compassion and Acceptance in most validations (de Bruin et al., 2014; Moreira & Canavarro, 2017; Lo et al., 2018; Kim et al., 2019; Orue et al., 2023; Pan et al., 2019). The key differences between our validation and the theoretical model are twofold. First, the Italian validation did not include the items addressing parents in this factor. This omission may be due to the deletion of certain items in the 22-item IM-P-IT, as these items were removed for their low psychometric properties, such as negative inter-items correlations and low corrected item-total correlations. Secondly, the IM-P-IT items related to emotional awareness and compassion loaded onto the same factor. We hypothesized that, for parents, it may be challenging to discriminate between the ability to focus attention on the child's emotions and internal states and the desire to alleviate their suffering.

The Non-Judgmental Acceptance in Parenting subscale aligned with the Non-Judgmental Acceptance of Parental Functioning subscale for several validations (de Bruin et al., 2014; Moreira & Canavarro, 2017; Lo et al., 2018; Orue et al., 2023; Kim et al., 2019). However, this subscale differed from the original version (Duncan et al., 2009), in that the items included in the Italian validation Non-Judgmental Acceptance in Parenting subscale were part of the Compassion for Self and Child and Non-judgmental Acceptance of Self and Child subscales in the theoretical model. These items were incorporated into broader subscales

Non-Judgmental Acceptance of Self and Child (Corthorn et al., 2022) and Mindfulness (Khanipour et al., 2023) in other adaptations. This raised the question: Why does our subscale align with other validations, yet differ from the theoretical model? Our response combines statistical and theoretical reasons. First, 5 items from the original subscales of Compassion for Self and Child and Non-judgmental Acceptance of Self and Child (Duncan et al., 2009) were not included in the IM-P-IT due to their low and diffuse factor loadings across multiple factors. Most of these items focused on the child, explaining why Non-Judgmental Acceptance in Parenting was related only to the parenting dimension. In other words, the theoretical model (Duncan et al., 2009) was particularly focused on taking together self and child within the same dimension of Non-judgmental Acceptance. While it is theoretically and clinically important to consider the child and parent together, our findings suggest that parents may experience differences in how they judge themselves versus their child. For instance, it is possible for a parent to be incredibly indulgent and forgiving towards their child while simultaneously being highly self-critical or judgmental about their own parenting role (Rehm et al., 2017).

Concerning internal consistency, the 22-item version of the IM-P-IT showed very good reliability scores, which are consistent across the three studies and three different samples (Study 1, $\alpha=0.88$; Study 2, $\alpha=0.89$; Study 3, $\alpha=0.89$). These indexes were in line with other studies that examined psychometric properties (for example, $\alpha=0.89$, de Bruin et al., 2014; $\alpha=0.93$, Moreira & Canavarro, 2017; $\alpha=0.85$, Lo et al., 2018; $\alpha=0.88$, Pan et al., 2019), confirming the validity of the IM-P across different validations. Subscale reliabilities were generally good, with Cronbach's alpha scores > 0.70 , with only one subscale with a lower but acceptable score (Self-Regulation in Parenting Relationship; Study 1 $\alpha=0.66$).

Concerning convergent validity, Studies 2 and 3 confirmed a relationship between interpersonal mindfulness in parenting (IM-P-IT) and parent behaviors (CECPAQ-IT; Sansavini et al., 2025). This relation was positive with the Supporting, Stimulation, Structure and Positive Discipline subscales, revealing that parents with high scores in mindful parenting also showed high scores in positive parenting behavior. These parents perceived themselves as highly sensitive, consistent in providing an organized environment, proactive in engaging children in learning activities, and employing disciplinary techniques that promote positive child behaviors. In other words, parents with high levels of mindful parenting recognize the emotions of both themselves and their children in the present moment, leading to positive parenting behaviors. Our findings corroborated the results described by Pan et al. (2019), who found a positive relationship between the IM-P and Parental Warmth, a subscale of the parental Acceptance-Rejection

Questionnaire (Parent PARQ, Rohner, 1990). By contrast, the relationship between the IM-P-IT and the Harsh Discipline subscale (CECPAQ-IT; Sansavini et al., 2025) was negative, revealing that parents with high scores in mindful parenting reported lower use of physical and verbal punishment and psychological control with their children. Our findings aligned with other validations that analyzed convergent validity between the IM-P and the Parenting Scale (PS, Arnold et al., 1993). de Bruin et al. (2014) found a negative relationship, as mothers with good skills in mindful parenting reported less over-reactivity, laxness, and verbosity. A similar result was found by Pan et al. (2019), who identified a negative relationship between mindful parenting and parenting over-reactivity. Convergent validity was also confirmed by the strong negative relationship described in Studies 2 and 3 between the IM-P-IT and the PSI- SF. Indeed, parents with good resources in mindful parenting perceived their parental role as less stressful. Our study aligned with previous studies, which have already described a negative relationship between interpersonal mindful parenting and parenting stress (see for example, Lo et al., 2018; Moreira & Canavarro, 2017; Pan et al., 2019).

Limitations and Future Research

The findings of the present study should be interpreted in light of some limitations related to both the socio-demographic profiles of the participants and the methodology employed. Regarding socio-demographic characteristics, data were collected from parents of children aged 4 to 5 years. Although previous validations have confirmed the robustness of factor analyses across various age groups, including children and adolescents (Hong Kong, Lo et al., 2018; Korea, Kim et al., 2019; and Portugal, Moreira & Canavarro, 2017), further research in Italy involving broader age ranges could substantiate our findings. Second, data were gathered in Emilia-Romagna, a region in northeastern Italy. However, it is important to note that in Italy both the school system and the healthcare services are public and governed by national laws. Specifically, the Ministry of Education and Merit oversees Early Childhood Education and Care (ECEC) for children aged 3 to 6. Additionally, the Italian Health Service provides universal coverage to all citizens and residents. Given these national frameworks, our results can be reasonably generalized to other regions in Italy. Third, our sample was mainly constituted of mothers, with a relatively small representation of fathers. This imbalance precluded the possibility of conducting confirmatory analyses for separate maternal and paternal samples. The inclusion of fathers in the study was based on findings from Pan et al. (2019), who reported a similar factorial structure for both mothers and fathers. However, prior research has shown that mothers tend to report higher levels of mindful

parenting compared to fathers (Medeiros et al., 2016), which warrants caution when generalizing the mean IM-P-IT scores obtained in our sample to the broader population of Italian parents.

Fourth, a notable proportion of the participants had relatively high levels of education. Future research should consider strategies to better include parents with lower levels of education to ensure greater representativeness. From a methodological perspective, the reliance on self-report instruments introduces the potential for bias due to social desirability, particularly in parenting. Integrating observational methods alongside self-reports could provide a more comprehensive understanding of parents' perceptions of their relationships with their children, as demonstrated by the promising results of Duncan et al. (2015). In the end, an analysis of test–retest was lacking, suggesting the same limitation in analyzing the stability of the measure already revealed in previous validations (de Bruin et al., 2014; Khanipour et al., 2023; Kim et al., 2019; Lo et al., 2018; Moreira & Canavarro, 2017; Orue et al., 2023).

Alongside its limitations, the present study also highlights some important indications for future research perspectives and possible implications. Indeed, the IM-P represents a significant self-reported questionnaire designed to assess mindful parenting, and the Italian version, IM-P-IT, showed psychometrically adequate proprieties. Given the growing interest in this area of research over recent years, the IM-P-IT questionnaire can be employed in a variety of studies within the Italian population, serving both research and clinical purposes.

Specifically, it could be valuable for evaluating the effectiveness of mindful parenting intervention programs across different populations and child age groups. Indeed, mindful parenting training and interventions have been mainly designed for parents of children with neurodevelopmental disorders and behavioral difficulties, revealing positive outcomes (Donovan et al., 2022; Lee et al., 2022; Lichtlé et al., 2020; Osborn et al., 2021). Such programs have also been designed for parents of typically developing children, even if mixed results have been described, pointing to a need for further research (Kil & Antonacci, 2020; Shorey & Ng, 2021). Promising results were found in promoting parenting skills in the postpartum period, early years of life (Fernandes et al., 2022), and adolescence (Burgdorf et al., 2019). Using the IM-P-IT could support research in evaluating the effectiveness of these interventions and their potential cascading effects on parental stress and child behavior.

Additionally, this tool may prove especially useful when applied to parents of children facing various challenges, such as medical conditions, psychiatric issues, or developmental disorders, as well as in diverse parenting contexts (e.g., migration, adoption). Indeed, IM-P-IT could serve as a valuable observational tool within individual clinical

settings by providing clinicians with an instrument that can facilitate a deeper understanding of parent–child dynamics and identify specific areas where mindful parenting may be strengthened. Simultaneously, the IM-P-IT offers parents a unique opportunity for self-reflection and personal evaluation, encouraging increased non-judgmental awareness to each moment of their parenting behaviors and emotional responses, empowering parents to actively engage in their own growth and the enhancement of their relationship with their child. Finally, the IM-P-IT can represent a noteworthy contribution to cross-cultural studies on mindful parenting. Currently, the IM-P questionnaire is available in nine adapted versions across the world, reflecting a significant increase in international interest in the construct and the instrument over the past 15 years. The Italian adaptation further supports the possibility of cross-cultural studies that can deepen our understanding of mindful parenting across diverse cultural contexts. Such research holds the potential to inform the development of intervention policies aimed at promoting nurturing care on a global scale.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s12671-025-02707-4>.

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Author contributions Annalisa Guarini: Conceptualization, Methodology, Data Collection, Project Administration and Supervision, Writing- Original Draft; Laura Menabò: Methodology, Formal Analysis, Writing- Original Draft; Maria Bigoni: Conceptualization, Methodology, Data Collection, Funding Acquisition, Project Administration and Supervision, Writing- Review & Editing; Stefania Bortolotti: Methodology, Data Collection, Project Administration and Supervision, Writing- Review & Editing; Margherita Fort: Conceptualization, Methodology, Data Collection, Data Curation, Project Administration and Supervision, Writing- Review & Editing; Daniela Iorio: Conceptualization, Methodology, Data Collection, Project Administration and Supervision, Writing-Review & Editing; Chiara Monfardini: Conceptualization, Methodology, Data Collection, Project Administration and Supervision, Writing- Review & Editing; Larissa G. Duncan: Conceptualization, Theoretical Supervision, Writing- Review & Editing; Alessandra Sansavini: Conceptualization, Methodology, Data Collection, Project Administration and Supervision, Writing-Review & Editing; Chiara Suttora: Conceptualization, Methodology, Data Collection, Project Administration and Supervision, Writing- Original Draft.

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Data availability Data were deposited in OSF repository with a public access (https://osf.io/m7wxa/?view_only=8430d9ef94a146c89d10029a8d23fca1).

Declarations

Ethical approval The study protocol, which included Study 1, Study 2 and Study 3, received approval from the Bioethics Committee at the University of Bologna (prot. no. 224334, 09/10/2020), Italy.

Informed consent Parents provided written informed consent for participation and data protection. Participation was voluntary, and parents could withdraw at any time without explanation.

Conflict of interest No conflict of interest to declare.

Use of artificial intelligence In preparing this manuscript, ChatGPT was used to verify the formal correctness of the text. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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