



# Spanish Version of the Interpersonal Mindfulness in Parenting Scale (IM-P)

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Accepted: 21 January 2023 / Published online: 27 February 2023  
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## Abstract

**Objectives** The Interpersonal Mindfulness in Parenting Scale (IM-P) is a self-report questionnaire that assesses mindful parenting. The scale has a brief version of 8 items and an extended version of 31 items. The objective of this study was to analyze the psychometric properties and factorial structure of the Spanish versions of the IM-P.

**Method** A back-translation of the IM-P was performed by two bilingual experts in the field. A factor analysis of the instrument's brief and extended versions was conducted, and their criterion validity was examined. Two samples were used to conduct the study (Sample 1,  $n = 385$ ; Sample 2,  $n = 303$ ). The factorial structure of the Spanish version of the IM-P was compared to the original version and other factor structures validated in different languages.

**Results** Both versions of the scale showed psychometric robustness, as well as a 4-factor factor structure. The results showed adequate validity and reliability of the short version of the scale compared to that of the original version. The extended version did not adequately fit the original factor structure, so we compared it to different factor structures. The results confirmed the 4-factor structure obtained by a study in Hong Kong, similar to that of the brief version. In addition, the different factors were correlated significantly in the expected direction with measures of mindfulness, parental affection, and parental stress.

**Conclusions** Both versions of the scale showed the instrument's adequate validity and reliability. Although further studies are needed, both the brief and extended versions of the Spanish adaptation of the IM-P seem suitable for understanding mindful parenting.

**Preregistration** This study is not preregistered.

**Keywords** Mindful parenting · Interpersonal Mindfulness in Parenting Scale · Mindfulness · Assessment instruments · Spanish scale

Mindful parenting refers to the mindfulness practice in parenting through parents' intentionality and awareness of the different interactions with their children (Duncan et al., 2009; Kabat-Zinn & Kabat-Zinn, 1997). The mindful parenting construct encompasses cognitive, affective, and attitudinal aspects of parenthood that are present during parent-child interactions. The term mindful parenting was coined by Kabat-Zinn and Kabat-Zinn (1997) and refers to the act of paying full attention to the relationship with children and the exercise of parenthood in a specific way: with intentionality that focuses on the present moment and with an attitude of

acceptance and nonjudgment. This act involves assuming an attitude of acceptance, kindness, and compassion for oneself and the child during interactions (Bögels & Restifo, 2014; Duncan et al., 2009).

Over the past decade, numerous studies have shown the benefits of mindful parenting for both parents and children. Concerning parents, mindful parenting has been associated with more positive parental practices (de Bruin et al., 2014; Parent et al., 2016), a decrease in parental stress levels (Bögels et al., 2014; Moreira & Canavarro, 2018), an increase in empathy and emotional self-regulation (Chiodelli et al., 2018; Hill & Updegraff, 2012), and a decrease in anxious and depressive symptoms (Rayan & Ahmad, 2017), among others. Regarding children, mindful parenting has been related to higher levels of psychological well-being (Medeiros et al., 2016), healthier psychosocial functioning (Bögels et al., 2014; Moreira

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et al., 2018), and a decrease in both externalizing and internalizing symptoms (Geurtzen et al., 2015; Parent et al., 2016). Concerning the parent–child relationship, mindful parenthood has been associated with higher-quality interactions and relationships between parents and children (Coatsworth et al., 2010; Duncan et al., 2009) and a stronger bond (Bhanda, 2015).

Studies and interventions on mindful parenting have often used general mindfulness scales—both multidimensional scales that assess the five mindfulness facets of observing, describing, acting with awareness, non-reactivity, and nonjudgment (Baer et al., 2006), such as the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) or unidimensional scales that assess a specific facet of mindfulness, such as the Mindful Attention Awareness Scale (MAAS; Soler et al., 2012)—that globally assess people’s dispositional ability to remain observant and aware of the experience of the present moment in everyday life. The different facets of the mindful parenting construct resemble the mindfulness construct, but the dimensions focus on specific aspects of the parent–child interaction, allowing a more precise assessment of the results of training in mindful parenting for both clinical and nonclinical populations. This has also allowed us to explore the mediating role of parents’ mindfulness skills in the decrease in psychiatric symptomatology of children and parents. Therefore, specific and adequate instruments of mindful parenting are needed to continue studying the construct in depth. To our knowledge, there have been three tools—the Mindfulness in Parenting Questionnaire (MIPQ, McCaffrey et al., 2017), which was also adapted in Spanish by Orue et al. (2020), the Bangor Mindful Parenting (Jones et al., 2014), and the Interpersonal Mindfulness in Parenting Scale (IM-P; Duncan, 2007). Because the latter has presented evidence of efficacy and has been validated in different languages, it was the instrument selected in the present study.

The initial version of the IM-P (Duncan, 2007) was a brief self-report tool consisting of 8 items for evaluating the mindful parenting construct. The scale proposed a 4-factor structure: emotional awareness, attention focused on the present, nonjudgmental attitude, and nonreactivity. Each subscale consisted of two items. The analyses showed adequate validity and reliability of the scale. Additionally, a study directed by Coatsworth et al. (2010) showed that the brief IM-P was sensitive to changes experienced in mindful parenting during parenting intervention programs.

Subsequently, Duncan et al. (2009) developed a theoretical model of the mindful parenting construct by uniting theoretical research on mindfulness, intervention programs based on mindfulness, and theoretical and empirical research on parenting. This model explained the positive effects of mindful parenting on the psychological functioning of both parents and children, as well as their interactions. Thus, Duncan et al. (2009) extended the IM-P to 31 items encompassing the 5 dimensions, including the 8 items of the brief version. The IM-P presented 5 dimensions of mindful parenting, that was, one more factor than the brief version: (1) listening with full attention to the child: high-quality listening in which attention and awareness go beyond just listening to the words spoken; (2) nonjudgmental acceptance of oneself and the child: being aware of one’s attributions and expectations that can bias the perceptions of the parent–child interactions; (3) emotional awareness of oneself and the child: becoming aware of how one’s own emotions activate the cognitive processes that determine parental practices; (4) self-regulation in the parenting relationship: through mindfulness, self-regulation allows achieving control of the parenting exercise according to the values and objectives of parenthood; and (5) compassion for oneself and the child: an open and accepting stance aimed at alleviating suffering, in which parents related to each other from an empathic concern toward their children. Specific modifications of the scale can be seen in Table 1. However, the authors did not empirically examine the new version’s factorial structure or psychometric properties but maintained the

**Table 1** Dimensions of the brief and extended (Duncan et al., 2009) versions of the Scale of Interpersonal Mindfulness in Parenting

	Dimension name	Items
Dimension 1 (5 items)	2007: Present-Centered Attention in Parenting 2009: Listening with Full Attention	Original items: 1 and 9 Added items: 13, 19, and 24
Dimension 2 (6 items)	2007: Present-Centered Emotional Awareness in Parenting 2009: Emotional Awareness of Self and Child	Original items: 3 and 6 Added items: 11, 12, 22, and 30
Dimension 3 (6 items)	2007: Nonreactivity/Low Reactivity in Parenting 2009: Self-Regulation in the Parenting Relationship	Original items: 2, 5, and 8 Added items: 14, 16, and 29
Dimension 4 (7 items)	2007: Nonjudgmental Acceptance in Parenting 2009: Nonjudgmental Acceptance of Self and Child	Original items: 4, 7, and 10 Added items: 18, 21, 23, and 28
Dimension 5 (7 items)	2007: Compassion for Self and Child 2009: (not included in 2007 version)	Added Items: 15, 17, 20, 25, 26, 27, 31

5-factor structure as a theoretically hypothesized structure (Table 2).

The two original versions—brief and extended—have been widely used, proving to be suitable for assessing mindful parenting in different cultural contexts (Coatsworth et al., 2010, 2015; Parent et al., 2010; Turpyn & Chaplin, 2016). Other research has studied the psychometric properties of the scale when adapting it to other languages, such as Dutch (de Bruin et al., 2014), Portuguese (Moreira & Canavarro, 2017), Chinese (Lo et al., 2018; Pan et al., 2019), or Korean (Kim et al., 2019). In these versions, the number of items and the factorial structure differed from each other and from the original extended version. For example, the Dutch scale was composed of 29 items that form a 6-factor structure—the sixth arising from the subdivision of the original emotional awareness dimension into two dimensions: emotional self-awareness and emotional awareness of the child (de Bruin et al., 2014). The Portuguese version of the scale comprises 29 items that made up the 5 factors of the original scale (Moreira & Canavarro, 2017). In China, we found two versions. The first was from Hong Kong, with 23 items that made up a 4-factor structure: listening with full attention, nonjudgmental acceptance in parenting, emotional awareness in parenting, and compassion for the child (Lo et al., 2018), and the second was from Mainland China, which consisted of 24 items grouped into 4 factors: interaction with mindfulness, compassion and acceptance, self-regulation in parenting, and emotional awareness of the child. Finally, the Korean version had 18 items grouped into 6 factors, including the 5 of the original scale and, as in the Dutch version (de Bruin et al., 2014), dividing emotional awareness into awareness of the child and self-awareness (Kim et al., 2019).

The objective of this study was to adapt and validate the version of the IM-P for use in the Spanish population and thereby facilitate cross-cultural research in mindful

parenting. Additionally, given the divergence in the factors of the various adapted versions, we aimed to deepen the analysis of the scale's structure. For this purpose, the psychometric properties and factorial structure of the two versions were analyzed, and the factorial invariance of the IM-P according to the parents' sex was examined. Moreover, convergent validity was also explored by analyzing correlations between the subscales of the Spanish versions of the IM-P and other measures of acting with awareness, parental affection, parental stress, and self-compassion. We also compared the subscales of the brief and extended versions.

## Method

### Participants

Two samples of Spanish parents participated in this study. Sample 1 was used to confirm the factorial structure of the original short version of the IM-P scale in the Spanish population. This sample comprised 385 participants, 258 mothers and 127 fathers with children between 1 and 18 years old. The mothers' mean age was 44.49 years ( $SD=5.80$ , range 23–71), and the fathers' mean age was 48.33 years ( $SD=6.21$ , range 34–73). The children's mean age was 12.57 years ( $SD=4.01$ ). Most participants (97.4%) were Spanish. Concerning education, 86.4% of the parents had a high school degree or higher, and 73.5% were actively working.

Sample 2 was used to analyze the factorial structure of the extended version in the Spanish population. This sample includes 303 participants, 234 mothers and 69 fathers with children between 1 and 18 years old. The mothers' mean age was 42.33 years ( $SD=6.06$ , range 25–56), and the fathers' mean age was 44.96 years ( $SD=7.892$ , range 28–62). The children's mean age was 9.73 years ( $SD=9.73$ ). Most participants (89.8%) were Spanish. Concerning education, 88.4%

**Table 2** Descriptive and discriminative data of the items of the IM-P subscales (brief version)

Dimension	Item	<i>M</i>	<i>SD</i>	<i>S</i>	<i>K</i>	Factor loading	Estimated error	$\alpha$ if the item is eliminated
Attention focused on the present	1	2.61	0.87	0.05	−0.41	0.69	0.53	0.59
	8	2.05	0.91	0.90	0.70	0.58	0.66	0.59
Emotional awareness	3	3.95	0.92	−0.91	0.76	0.96	0.06	0.62
	5	3.96	0.85	−0.69	0.40	0.43	0.81	0.64
Nonjudgment	4	3.99	0.82	−0.50	−0.17	0.94	0.11	0.53
	6	4.30	0.80	−1.02	0.72	0.64	0.59	0.57
Nonreactivity	2	2.88	1.10	0.07	−0.55	0.54	0.71	0.56
	7	3.38	0.99	−0.04	−0.72	0.60	0.64	0.57

Note: *M*, mean; *SD*, standard deviation; *S*, skewness; *K*, kurtosis;  $\alpha$ , Cronbach's alpha if the item is deleted

\* $p < 0.05$ ; \*\* $p < 0.001$

of the parents had a high school degree or higher education, and 80.6% were actively working.

## Procedure

This cross-sectional study was approved by the Research Ethics Committee of the University of Deusto. Data management explicitly followed Organic Law 2/2018 on the Protection of Personal Data and was in compliance with EU Regulation 2016/679. The voluntariness of the participation, the anonymous nature of the participation, and the confidentiality of the data were made explicit. Participants were also informed that, in case of any doubts when completing the protocols, they could contact the principal investigators of the study. They could also drop out of the study at any time. There was no economic remuneration for participating in the study.

For Sample 1, the questionnaire was disseminated through different websites and parents' associations and forums. The objectives of the study were presented in the link to the questionnaire, along with the contact details of the responsible researchers. For Sample 2, the questionnaire was disseminated in various schools (early childhood, primary, and secondary), both public and subsidized. A letter was sent to families through the schools that presented the objectives of the study and provided the contact details of the researchers responsible for the study. This letter included a link that allowed the parents to access the study questionnaires. For their collaboration in the study, interested parents were offered free access to a 90-min practical online mindfulness session.

## Instruments

### **Sociodemographic Questionnaire**

This was designed to obtain the general characteristics of the sample participants: age, sex, nationality, marital status, level of education, and employment status.

### **Interpersonal Mindfulness in Parenting Scale (IM-P; Duncan, 2007)**

This scale has two versions. The initial version has 8 items (Duncan, 2007) divided into 4 subscales: attention focused on the present (e.g., "I realize I'm only partially listening to my child because I'm busy with some other task or thought at the same time"), emotional awareness focused on the present (e.g., "I notice how changes in my child's mood affect my own mood"), nonjudgment (e.g., "I listen to my child's ideas carefully, even if I disagree with them"), and nonreactivity (e.g., "When I'm upset with my child, I realize how

I'm feeling before I act"). Items are rated on a 5-point Likert scale ranging from 1 (*never true*) to 5 (*always true*).

The extended version, created from the hypothesized theoretical model and based on the short version (Duncan, 2007), includes 31 items rated on the same 5-point Likert scale ranging from 1 (*never true*) to 5 (*always true*). The 31 items are divided into 5 factors: listening with full attention to the children, nonjudgmental acceptance of oneself and the child, emotional awareness of oneself and the child, self-regulation in the parent–child relationship, and compassion for oneself and the children. After obtaining the authorization of the authors of the original scales (brief and extended) to translate and validate the scale, two bilingual Spaniards translated the scale independently. The translations were compared, and after analyzing and discussing their similarities and differences, the first Spanish translation was used. This initial version was translated back into English by another bilingual psychologist. Finally, the original version and the back-translated version were compared and analyzed until a suitable instrument was obtained that was consistent with the original.

### **Mindful Attention Awareness Scale (MAAS; Soler et al., 2012)**

This scale presents a uni-factorial view of one of the facets that make up the mindfulness/awareness construct in the present moment. Specifically, this scale represents a global assessment of people's dispositional ability to remain observant and aware of the experience of the present moment in everyday life. This scale presents 15 items rated on a 6-point Likert scale ranging from 1 (*almost always*) to 6 (*hardly ever*). One of the items is "I find it hard to focus on what's going on in the present." The internal consistency of the questionnaire is high, with a Cronbach's alpha of 0.89.

### **Parental Stress Scale (PSS; Berry & Jones, 1995; Oronoz et al., 2007)**

This scale assesses parental stress using two subscales: Stressors (e.g., "I feel overwhelmed by the responsibility of being a parent") and Rewards (e.g., "I enjoy spending time with my child"). The 17-item Spanish version was used, rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale presents an adequate Cronbach's alpha for both subscales: Stressors (0.76) and Rewards (0.77).

### **Affection Scale (EA; Bersabé et al., 2001; Fuentes et al., 1999)**

This 20-item scale evaluates parental educational styles and is made up of two factors: Affection-Communication (e.g.,

“I accept him as he is”) and Criticism-Rejection (e.g., “What he does seems wrong to me”). Each factor has 10 items rated on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*always*). The scale presents a version for parents and one for children. For this study, the parents’ version was used. Reliability coefficients indicated adequate internal consistency for both subscales: Affection-Communication (0.78) and Criticism-Rejection (0.78).

### Self-Compassion Scale (SCS; García-Campayo et al., 2014)

The short version of the scale was used, which consists of 12 items. The scale presents 3 subscales: Common Humanity (e.g., “I try to see my flaws as part of the human condition”), Mindfulness (e.g., “When something upsets me, I try to keep my emotions in balance”), and Personal Kindness (e.g., “I try to be understanding and patient with those aspects of my personality that I don’t like”). Each subscale is rated in its positive and negative versions, thus forming a 6-factor structure, and is rated on a 5-point Likert scale ranging from 1 (*hardly ever*) to 5 (*almost always*). This scale was administered only to Sample 2 to assess the fifth dimension (Compassion) of the extended version of the IM-P scale. The remaining scales were used in both samples.

### Data Analyses

The same order of analyses as the one used by the original authors was followed, with the short version of the scale being analyzed first, then the extended version, and then the two were compared. As a first step, descriptive statistics were analyzed, and reliability was obtained through Cronbach’s alpha and McDonald’s omega coefficient. Next, to verify the factorial structure of the Spanish version of the IM-P, confirmatory factor analysis (CFA) was carried out using LISREL 8.80 (Jöreskog & Sörbom, 1996) software. The model’s parameters were estimated through the maximum likelihood method. For the analysis of the model’s goodness of fit, we used the relationship between chi-square and the model’s degrees of freedom (whose value must be less than 5; Wheaton et al., 1977). The assessment of the fit was based on four additional indicators: the root mean square error of approximation (RMSEA) and the

standardized root mean residual (SRMR), whose values must be less than 0.08 (Browne & Cudeck, 1993); and the nonnormed fit index (NNFI) and the Comparative Fit Index (CFI), whose values must be greater than 0.90 (Bentler & Bonett, 1980; Hair et al., 2006).

To study sex invariance, the four types or models of invariance were analyzed, from the least to the most restrictive (Byrne, 1989). These are configural invariance (same structure in both groups), metric invariance (same factorial loads in both groups), scalar invariance (the observed scores are equivalent to the latent scores), and invariance of the error variance or total invariance (the same variation in the error, analyzing whether the measurement error is the same in both groups). The existence of invariance was analyzed by comparing the CFI index between the models, where differences less than 0.01 ( $\Delta CFI < 0.01$ ) indicate invariance compared to the less-restrictive model, whereas greater differences imply a substantial decrease in the fit (Chen, 2007). As a third step, the validity of the instrument was analyzed through Pearson’s correlations ( $r$ ) with the variables acting with awareness, parental affection, and parental stress.

Throughout the entire manuscript, two decimal places have been used, except in some circumstances, such as goodness-of-fit indices where cutoff values are very small and three decimal places have been used.

## Results

### Brief Version (8 Items) (Table 9)

Table 2 shows the descriptive and discriminative data of the items that make up the subscales of the brief IM-P. The internal reliability of the scale was shown by a Cronbach’s alpha of 0.62 and a McDonald omega of 0.62. Next, CFA was performed to verify the psychometric properties of the original 4-factor correlated model in the Spanish sample. A free covariation model was conducted because the items were independent of each other. The results showed an adequate fit of the brief version, as the indexes reached the recommended values:  $\chi^2/df = 2.09$ ; RMSEA = 0.053, 90% CI [0.025, 0.080], CFI = 0.97, NNFI = 0.95, SRMR = 0.048.

**Table 3** Global fit indexes for the measurement invariance of the brief IM-P in mothers and fathers

	$\chi^2$	$df$	$P$	CFI	NNFI	RMSEA	RMSEA 90% CI
M1. Configural invariance	56.444	34	0.009	0.950	0.918	0.059	0.023, 0.085
M2. Metric invariance	64.199	38	0.005	0.940	0.912	0.060	0.033, 0.085
M3. Scalar invariance	57.443	34	0.007	0.945	0.910	0.060	0.031, 0.087
M4. Invariance of the error variance	71.181	46	0.010	0.947	0.935	0.053	0.026, 0.077

Note:  $\chi^2$ , chi-square;  $df$ , degrees of freedom;  $p$ , probability; CFI, Comparative Fit Index; NNFI, nonnormed fit index; RMSEA, root mean square error of approximation; RMSEA 90% CI, RMSEA confidence interval

The 4-factor correlated model also fit adequately when sex was considered, as in the study carried out by the original authors of the scale (Duncan, 2007) and reflected in the invariance studies presented in Table 3. First, the configural structure was confirmed, which showed that fathers and mothers conceptualize the construct of mindful parenthood in the same way (Cheung & Rensvold, 2002). Second, metric invariance was confirmed, which meant that fathers and mothers interpret the items of the scale in the same way. Third, scalar invariance was confirmed, showing that the scale’s scores were equivalent for fathers and mothers (Gregorich, 2006). Finally, residual invariance was also

confirmed, showing that both mothers and fathers reacted similarly to the scale, as the vocabulary and expressions of the instruments were understood in the same way for both of them (Cheung & Rensvold, 2002).

**Extended Version (31 Items) (Table 10)**

First, CFA was performed to verify the psychometric properties of the 5-factor correlated model of the extended version in the Spanish population. The CFA showed a poor model fit ( $\chi^2/df=4.50$ ; RMSEA = 0.107, 90% CI [0.102, 0.112], CFI = 0.887, NNFI = 0.876,

**Table 4** Confirmatory factor analysis of the Spanish extended version of the IM-P with the other versions of the scale

		$\chi^2/df$	<i>df</i>	RMSEA [90% CI]	NNFI	CFI ( $\Delta$ CFI)
Five-factor solution	Original version	4.50	424	0.107 [0.102, 0.112]	0.88	0.89 (0.01)
	Portuguese version	2.93	419	0.080 [0.074, 0.085]	0.93	0.94 (0.01)
Six-factor solution	Dutch version	2.74	362	0.075 [0.070, 0.081]	0.94	0.95 (0.01)
	Korean version	2.48	120	0.069 [0.059, 0.079]	0.94	0.95 (0.01)
Four-factor solution	Hong Kong version	2.44	224	0.069 [0.061, 0.076]	0.96	0.96 (0.00)
	Chinese Mainland version	4.63	246	0.109 [0.103, 0.116]	0.85	0.87 (0.02)

Note:  $\chi^2$ , chi-square; *df*, degrees of freedom; *RMSEA*, root mean square error of approximation; *RMSEA 90% CI*, RMSEA confidence interval; *NNFI*, nonnormed fit index; *CFI*, Comparative Fit Index

**Table 5** Descriptive and discriminative data of the IM-P subscale items

Dimension	Item	<i>M</i>	<i>SD</i>	<i>S</i>	<i>K</i>	Factor loading	Estimated error
Listening with full attention $\alpha=0.780/\omega=0.785$	1	2.79	0.98	0.08	-0.27	0.56	0.69
	9	2.13	0.95	0.66	0.02	0.72	0.48
	13	2.25	-0.88	0.35	-0.24	0.85	0.28
	19	2.42	0.97	0.36	-0.32	0.82	0.32
Compassion for the child $\alpha=0.753/\omega=0.735$	31	4.42	0.77	-1.28	1.20	0.85	0.28
	27	4.67	0.62	-2.01	4.16	0.90	0.20
	28	4.33	0.80	-1.31	2.19	0.65	0.58
	25	4.21	0.79	-0.60	-0.52	0.76	0.43
	24	3.99	0.83	-0.40	-0.39	0.76	0.43
	22	3.72	1.20	-0.75	-0.37	0.43	0.82
Emotional awareness in parenting $\alpha=0.761/\omega=0.767$	30	3.70	0.91	-0.57	0.04	0.41	0.83
	2	3.41	0.99	-0.35	-0.35	0.52	0.73
	8	3.59	1.03	-0.37	-0.46	0.65	0.58
	16	3.47	0.94	-0.20	-0.32	0.71	0.49
	20	3.17	1.00	-0.18	-0.33	0.40	0.84
Nonjudgmental acceptance in parenting $\alpha=0.795/\omega=0.796$	21	3.17	1.06	-0.15	-0.76	0.73	0.46
	18	3.70	0.94	-0.39	-0.31	0.70	0.51
	23	2.64	1.22	0.18	0.97	0.73	0.47
	29	2.86	0.98	0.12	-0.67	0.74	0.45
	14	2.76	1.12	0.22	-0.89	0.79	0.38
	17	2.93	1.07	0.01	-0.65	0.51	0.74
	26	2.31	1.30	0.66	-0.72	0.56	0.68
	11	2.64	1.05	0.28	-0.48	0.70	0.52

Note: *M*, mean; *SD*, standard deviation; *S*, skewness; *K*, kurtosis;  $\alpha$ , Cronbach’s alpha;  $\omega$ , McDonald’s omega

SRMR = 0.109). Because the Spanish population data did not adequately fit the original 5-factor correlated model, we compared the fit of the data to different factor structures of the extended versions previously published in other cultures: the Dutch version (6-factor model), the Korean version (6-factor model), the Hong Kong version (4-factor model), the Portuguese version (5-factor model), and the Mainland Chinese version (4-factor model). The results are shown in Table 4. The Spanish version replicated the factor structure of the 4-factor model of the Hong Kong version, showing adequate fit in all of the indexes ( $\chi^2/df = 2.44$ ; RMSEA = 0.069, 90% CI [0.061, 0.076], CFI = 0.961, NNFI = 0.956, SRMR = 0.076).

However, taking into account three fit indexes, the data appropriately fit the versions replicating the Dutch (6-factor model), Korean (6-factor model), and Portuguese (5-factor model) factor structures. First, the structure that replicated the 6-factor model of the Dutch version was compared to the 6-factor model of the Korean version, showing that the latter was more appropriate,  $\chi^2(242) = 694.25$ ,  $p < 0.001$ . Second, the factor structure that replicated the 6-factor model of the

Korean version was compared to the 4-factor model of the Hong Kong version, with the latter being more appropriate,  $\chi^2(104) = 249.28$ ,  $p < 0.001$ . Finally, the 4-factor model of the Hong Kong version was compared to the 5-factor model of the Portuguese version, again showing that the 4-factor model of the Hong Kong version was the most appropriate,  $\chi^2(195) = 682.70$ ,  $p < 0.001$ . Therefore, the data showed that the 4-factor model of the Hong Kong version presented a better fit to the Spanish sample. After the Spanish structure was confirmed, descriptive and discriminant analyses of the items that make up the subscales of the extended version of the IM-P scale were carried out. The internal reliability of the total scale was reflected by a Cronbach's alpha of 0.89 and a McDonald's omega of 0.89. The reliability of the subscales was also good, as shown in Table 5.

Finally, correlations of the IM-P with acting with awareness, parental affection, parental stress, and self-compassion were analyzed. The results of the correlations corresponding to the brief version can be seen in Table 6. As predicted, the different subscales of the brief version of the IM-P presented statistically significant correlations with acting with

**Table 6** Correlations between the dimensions of brief IM-P and mindfulness, parental affection, and parental stress

	Attention focused on the present	Emotional awareness	Nonjudgment	Nonreactivity	Total IM-P
Acting with awareness (MAAS)	0.41**	-0.62	0.26**	0.21**	0.32**
Parental affection (PA)	0.41**	-0.32	0.55**	0.43**	0.54**
Parental stress (PS)	-0.37**	0.13	-0.36**	-0.28**	-0.35**

\*  $p < 0.05$ ; \*\*  $p < 0.001$

**Table 7** Correlations between the dimensions of the extended IM-P and mindfulness, parental affection, compassion, and parental stress

	Listening with full attention	Emotional awareness in parenting	Nonjudgmental acceptance	Compassion for child	Total IM-P
Acting with awareness (MAAS)	0.63**	0.44**	0.55**	0.51**	0.67**
Parental affection (PA)	0.48**	0.54**	0.57**	0.53**	0.65**
Self-compassion (SC)	0.39**	0.33**	0.55**	0.58**	0.60**
Parental stress (PS)	-0.49**	-0.39**	-0.56**	-0.62**	-0.64**

\*  $p < 0.05$ ; \*\*  $p < 0.001$

**Table 8** Correlations between the dimensions of the brief and extended versions of the Spanish IM-P

	Listening with full attention (LFA)	Emotional awareness (EAP)	Nonjudgmental acceptance (NJAP)	Compassion for the child (CC)
Attention focused on the present	0.87**	0.21**	0.39**	0.33**
Emotional awareness	0.17*	0.41**	0.10	0.01
Nonjudgment	0.53**	0.43**	0.73**	0.46**
Nonreactivity	0.25**	0.39**	0.55**	0.40**

\*  $p < 0.05$ ; \*\*  $p < 0.001$

awareness, parental affection, and parental stress, except for the emotional awareness subscale. The total IM-P score correlated positively with acting with awareness and parental affection—these correlations were moderate and high, respectively—and negatively, albeit moderately, with parental stress. As shown in Table 7, the subscales of the extended version of the IM-P also presented statistically significant correlations with acting with awareness, parental affection, parental stress, and self-compassion. As predicted, the total score of the extended IM-P presented a positive and strong correlation with acting with awareness, parental affection,

and self-compassion and presented a negative and strong correlation with parental stress.

Furthermore, the correlations between the different factors of the extended and brief versions of the Spanish IM-P were analyzed. The results showed statistically significant correlations between the different factors of the two scales, except for the emotional awareness factor of the brief version, which was linked only to emotional awareness and listening with full attention of the extended version. The highest correlations found were between the same dimensions (Table 8).

**Table 9** Spanish version of the brief Scale of Interpersonal Mindfulness in Parenting

Escala de Atención Plena Interpersonal en la Parentalidad					
Los siguientes enunciados describen distintas maneras en que los padres/madres interactúan con sus hijos/as diariamente. Por favor indique si el enunciado aplica a su situación personal, señalando si esto es así “Siempre”, “A menudo”, “A veces”, “Rara vez” o “Nunca”. Recuerde que no hay respuestas correctas ni equivocadas y responda de acuerdo a lo que realmente refleja su experiencia en vez de lo que piensa que debería de ser su experiencia.	Nunca	Rara Vez	A Veces	A Menudo	Siempre
1. Me pillo a mí misma escuchando a mi hijo/a a medias por estar ocupada haciendo o pensando en otra cosa al mismo tiempo.	1	2	3	4	5
2. Cuando estoy irritada o molesta con mi hijo/a, me doy cuenta de cómo me estoy sintiendo antes de tomar cualquier acción.	1	2	3	4	5
3. Me doy cuenta como los cambios de humor de mi hijo/a afectan mi estado de ánimo.	1	2	3	4	5
4. Escucho las opiniones de mi hijo/a, aún cuando no esté de acuerdo.	1	2	3	4	5
5. Estoy consciente de la manera que mis estados de ánimo influyen como trato a mi hijo/a.	1	2	3	4	5
6. Aun cuando me incomode, permito que mi hijo/a exprese sus sentimientos.	1	2	3	4	5
7. Cuando estoy irritada o molesta con mi hijo/a, le digo con calma como me estoy sintiendo.	1	2	3	4	5
8. Me apresuro realizando actividades con mi hijo/a, sin realmente estar atenta a él/ella.	1	2	3	4	5

**Table 10** Extended Spanish version of the Scale of Interpersonal Mindfulness in Parenting

Escala de Atención Plena Interpersonal en la Parentalidad					
Los siguientes enunciados describen distintas maneras en que los padres/madres interactúan con sus hijos/as diariamente. Por favor indique si el enunciado aplica a su situación personal, señalando si esto es así “Siempre”, “A menudo”, “A veces”, “Rara vez” o “Nunca”. Recuerde que no hay respuestas correctas ni equivocadas y responda de acuerdo a lo que realmente refleja su experiencia en vez de lo que piensa que debería de ser su experiencia.	Nunca	Rara Vez	A Veces	A Menudo	Siempre
1. Me pillo a mí misma escuchando a mi hijo/a a medias por estar ocupada haciendo o pensando en otra cosa al mismo tiempo.	1	2	3	4	5
2. Cuando estoy irritada o molesta con mi hijo/a, me doy cuenta de cómo me estoy sintiendo antes de tomar cualquier acción.	1	2	3	4	5
3. (8). Cuando estoy irritada o molesta con mi hijo/a, le digo con calma como me estoy sintiendo.	1	2	3	4	5
4. (9). Me apresuro realizando actividades con mi hijo/a, sin realmente estar atenta a él/ella.	1	2	3	4	5
5. (11). Mi estado de ánimo tiende a afectar mis decisiones en cuanto a la crianza de mi hijo/a, pero no me doy cuenta hasta después.	1	2	3	4	5
6. (13). Cuando estoy haciendo cosas con mi hijo/a, mi mente divaga y me distraigo fácilmente.	1	2	3	4	5
7. (14). Cuando mi hijo/a se porta mal, me enojo tanto que digo o hago cosas de las cuales después me arrepiento.	1	2	3	4	5
8. (16). Cuando mi hijo/a hace algo que me molesta, trato de equilibrar mis emociones.	1	2	3	4	5
9. (17). Cuando las cosas van mal con mi hijo/a, tiendo a culparme.	1	2	3	4	5
10. (18). Cuando intento hacer cosas como madre que no funcionan, puedo aceptarlo y seguir adelante.	1	2	3	4	5
11. (19). A menudo estoy tan ocupada pensando en otras cosas, que me doy cuenta que no estoy de veras escuchando a mi hijo/a.	1	2	3	4	5

Table 10 (continued)

Escala de Atención Plena Interpersonal en la Parentalidad					
Los siguientes enunciados describen distintas maneras en que los padres/madres interactúan con sus hijos/as diariamente. Por favor indique si el enunciado aplica a su situación personal, señalando si esto es así “Siempre”, “A menudo”, “A veces”, “Rara vez” o “Nunca”. Recuerde que no hay respuestas correctas ni equivocadas y responda de acuerdo a lo que realmente refleja su experiencia en vez de lo que piensa que debería de ser su experiencia.	Nunca	Rara Vez	A Veces	A menudo	Siempre
12. (20). Cuando hago algo como madre de lo cual después me arrepiento, intento no ser tan dura conmigo misma.	1	2	3	4	5
13. (21). En situaciones difíciles con mi hijo/a, tomo un momento en lugar de reaccionar inmediatamente.	1	2	3	4	5
14. (22). Es fácil para mí darme cuenta cuando mi hijo/a está preocupado/a por algo.	1	2	3	4	5
15. (23). Tiendo a criticarme por no ser la clase de madre que quiero ser.	1	2	3	4	5
16. (24). Le pongo mucha atención a mi hijo/a cuando pasamos tiempo juntos.	1	2	3	4	5
17. (25). Soy cariñosa o amable con mi hijo/a cuando él/ella se siente mal.	1	2	3	4	5
18. (26). Durante un momento difícil como madre, pienso que para otras madres es más fácil.	1	2	3	4	5
19. (27). Cuando mi hija/o está pasando por un momento difícil, trato de darle el cuidado y cariño que necesita.	1	2	3	4	5
20. (28). Trato de entender el punto de vista de mi hijo/a aún cuando no entienda sus opiniones.	1	2	3	4	5
21. (29). Cuando mi hijo/a hace algo que me molesta, me dejo llevar por mis emociones.	1	2	3	4	5
22. (30). Me doy cuenta de lo que siente mi hijo/a aún cuando no me diga nada.	1	2	3	4	5
23. (31). Trato de ser comprensiva y paciente con mi hijo/a cuando él/ella está pasando por un momento difícil.	1	2	3	4	5

## Discussion

The objective of this study was to analyze and validate the psychometric properties of the brief and extended Spanish versions of the IM-P scales. The extended version of the scale presented acceptable reliability (alpha and omega = 0.89). However, in the brief version, the internal reliability was unfortunately below the acceptable cutoff point of 0.70 (alpha and omega = 0.62). Although its value is almost adequate, this scale should be used with caution. Regarding the original brief version, the main finding is that the CFA confirms the 4-factor model of the IM-P proposed by the author of the instrument (Duncan, 2007). Hence, the solidity of the conceptual structure of the instrument was confirmed, as in other studies (Lo et al., 2018; Pan et al., 2019). Additionally, as in the original study (Duncan, 2007), the results allowed us to assume the criterion of factorial invariance of the parents' sex. This means that, similar to other adaptations of the instrument (Pan et al., 2019), the Spanish IM-P can be used for both mothers and fathers, providing a brief instrument that contributes to increasing the scarce research on male parenting. It is essential to have valid and reliable instruments of mindful parenthood that are invariant as a function of the parents' sex to adequately evaluate the construct of both parents so they can be compared.

Regarding the extended version of the IM-P, the results confirmed the 4-factor model of the Hong Kong version by Lo et al. (2018): compassion for the child, emotional awareness in parenting, nonjudgmental acceptance in parenting, and listening with full attention. The fact that two cultures as different as those of Hong Kong and Spain have coincided in the dimensional structure of mindful parenting, which does not occur with the original version developed in Holland, is surprising. On the one hand, this finding raises the transversality of the construct and, on the other hand, the need for subsequent studies that clarify its structure. Relevant discrepancies were observed between the different factor models analyzed with samples from diverse countries. In this sense, the Spanish version, unlike the original version, did not contemplate the self-regulation dimension as a separate subscale. Instead, this dimension was assumed to be represented within the emotional consciousness and nonjudgmental acceptance subscales. It was precisely this difference in the factor structure of the brief and extended versions that limited their correlations, again suggesting the need for a more precise conceptualization of the construct.

In addition to construct validity, the scale was empirically supported through concurrent validity in both the brief and extended versions, finding statistically significant correlations between the IM-P scores and other measures of mindfulness, parental stress, parental affection, and self-compassion. The positive correlations with the mindfulness measure confirmed the validity of the instrument, as in previous studies (Beer et al.,

2013; Bögels et al., 2014). The practice of parental mindfulness correlated negatively with parental stress (Gouveia et al., 2016; Moreira & Canavarro, 2018). Parents who develop the ability to be present when interacting with their children (observing and attending to the children's and their own feelings and emotional needs) have more resources to deal with stress (Bögels et al., 2014) and develop more positive parenting practices (de Bruin et al., 2014; Parent et al., 2016). Being aware and pausing before acting allows parents to provide more affective and protective responses to their children (Bhandal, 2015; Coatsworth et al., 2010).

Concerning affection in parenting and self-compassion, previous studies showed a positive correlation with a mindfulness practice (Neff, 2003). Parents who practice mindful parenting present higher levels of empathy (Benton et al., 2019) and compassion for themselves and the child (Gouveia et al., 2016; Moreira et al., 2018). This helps them establish stronger and better quality parent-child relationships (Bhandal, 2015; Duncan et al., 2009).

In summary, this study showed the preliminary results of the validity of the brief and extended Spanish versions of the IM-P, which have adequate psychometric properties and have proven to be a valid measure. To date, researchers of mindful parenting have used general scales to evaluate the constructs of mindfulness and parenthood separately due to the absence of specific instruments for mindful parenting in Spanish samples. Therefore, we have provided a valuable and simple instrument with brief and extended versions that is very useful in both the clinical and research fields. In this sense, the extended scale can be used for a more exhaustive analysis, whereas the brief scale can be very useful to evaluate longitudinal changes in intervention programs where the brevity of the scales may be decisive in preventing score distortion due to participants' fatigue and learning when completing extended evaluation protocols. Along this line, Coatsworth et al. (2010) showed that the brief IM-P was sensitive to mindful parenting changes that occurred during parenting intervention programs.

At a conceptual level, the difference between the subscales may be a factor to consider when using one of the scales. Both scales assess attention focused on the present, emotional awareness, and nonjudgment but differ in one subscale. The brief scale assesses nonreactivity, whereas the extended version assesses compassion toward the child. Depending on the aims of the study, having a total score of parental awareness may be sufficient, or it may be necessary to choose a scale that is better adapted to the facets that one wishes to measure. In summary, the present study provides two versions of the IM-P scale in Spanish, both easy to apply and with international recognition, and they allow for a continuation of the study of mindful parenting without having to resort to generic scales. Thus, we can advance our understanding of this construct's role in well-being and psychosocial family adjustments.

## Limitations and Future Research

The study has some limitations. First, all of the data were collected using self-report measures, which can lead to common method bias, producing false correlations between items due to independent effects (response styles, social desirability) (Podsakoff et al., 2012). Hence, studies should be complemented with other types of measures, such as observational measures (Duncan et al., 2015). Second, Sample 2 comprised mainly women and may not be generalizable to fathers. Therefore, as a future line of research, it would be interesting to compare the invariance in the factorial structure of the extended version as a function of parents' sex and analyze the instrument's discriminant capacity and sensitivity to change after structured interventions in mindful parenting. Third, although the evidence of the internal and external validity of the MAAS is robust, its content validity is too low to allow for an in-depth exploration of attention with awareness and its mechanisms. The instrument has allowed us to assess a specific aspect of attention with awareness, that is, people's dispositional ability to remain observant and aware of the experience of the present moment in daily life. Therefore, we recommend that future research choose a scale that assesses the mindfulness construct multidimensionally, including its five facets: observing, describing, acting with awareness, nonreactivity, and nonjudging (Baer et al., 2006). Last, it should be taken into account that, unfortunately, the internal reliability of the brief version was below the acceptable cutoff point of 0.70; therefore, this scale should be used with caution.

Despite these limitations, this study represents an important contribution to mindful parenting measures, as it is an outstanding construct due to its relevance in understanding parent–child relationships and global family functioning. The two instruments proposed herein can be used in the clinical field and to develop research, contributing greater depth to our understanding of the construct. Nevertheless, the need to continue working theoretically on the mindful parenting construct is evident.

**Acknowledgements** We thank the institutions that collaborate in data collection and we thank the parents that participate in the study.

**Author Contribution** Laura Barrio: conceptualization, methodology, data analyses, and writing. Ana Martínez-Pampliega: supervision, writing, reviewing, and editing. Laura Merino: methodology, data analyses, and writing.

**Funding** Open Access funding provided thanks to the CRUE-CSIC agreement with Springer Nature.

**Data Availability** All of the data are available in the Open Science Framework (<https://osf.io/4u3mc/>).

## Declarations

**Ethics Statement** This cross-sectional study was approved by the Research Ethics Committee of the University of Deusto. Data management explicitly followed Organic Law 2/2018 on the Protec-

tion of Personal Data and was in compliance with EU Regulation 2016/679.

**Informed Consent** Written informed consent for the publication of their details was obtained from the study participants.

**Conflict of Interest** The authors declare no competing interests.

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