The psychometric properties of the Hungarian Parental Reflective Functioning Questionnaire

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Abstract

Parental reflective functioning refers to the ability of parents to understand their child as motivated by internal mental experiences such as thoughts and feelings. This study aimed to examine the factor structure of the Hungarian version of the Parental Reflective Functioning Questionnaire (PRFQ) and to assess its relationships with general reflective functioning (Certainty and Uncertainty), attachment dimensions (Confidence, Relationships as secondary, The need for approval, Discomfort with closeness, Preoccupation with relationships) and the perception of the child (Warmth and Invasiveness) among mothers of children up to five years of age. Two hundred sixty-three mothers completed the PRFQ and The Reflective Functioning Questionnaire, of which 201 mothers also completed the Mothers' Object Relations Scale and The Attachment Style

Questionnaire. Confirmatory factor analyses supported the three-factor solution. Cronbach's alpha coefficients for Certainty about Mental States and Interest and Curiosity subscales were excellent, while it was lower for Pre-Mentalizing.

Keywords: Mentalizing, reflective functioning, parental reflective functioning, validation, attachment

Introduction

Researchers have demonstrated that the sensitivity and responsiveness of caregivers explain only a relatively small portion of the intergenerational transmission of attachment, resulting in what is referred to as a "transmission gap" (Van Ijzendoorn & Bakermans-Kranenburg, 2019). Fonagy et al. (1995) proposed that the reflective function of parents might partially account for this transmission gap. Parental reflective functioning (PRF) refers to parents' capacity to reflect on their own and their child's internal mental experiences (Slade, 2005). PRF is the specific manifestation of the broader concept of reflective functioning (Fonagy et al., 2016) within the parent-child relationship. PRF enables parents to access emotions and memories related to their own early attachment experiences (Luyten et al., 2017). PRF has been shown to be associated with attachment security and adaptive emotional regulation capacities and thus can be expected to play a role in the intergenerational transmission of secure attachment (Fonagy et al., 2023).

The Parental Reflective Functioning Questionnaire (PRFQ; Luyten et al., 2017) is a self-report measure of PRF. Originally developed in English, it consists of three subscales. The first subscale, Pre-Mentalizing (PM), reflects the parents' tendency for malevolent attributions about their child's behaviour and their difficulty entering the child's subjective world, e.g. "*My child cries around strangers to embarrass me.*" The second subscale, Certainty about Mental States (CMS), assesses a parent's confidence in understanding their child's mental state, such as "*I always know what my child wants.*" Higher scores on CMS indicate more genuine and adaptive parental mentalizing; very high scores, however, reflect excessive mentalizing. Lastly, Interest and Curiosity (IC) measures parents' curiosity about their child's mental experiences, e.g. "*I am often curious to find out how my child feels*". Initially designed for parents of children under five, the PRFQ was later adapted for adolescents while maintaining the same subscales.

Certain findings indicated that Pre-Mentalizing was negatively correlated with maternal age and education level (Luyten et al., 2017). Additionally, PM displayed a moderately positive association with attachment avoidance and anxiety, while CMS exhibited a weaker negative association with both. Maternal Pre-Mentalizing was negatively related to infant attachment security, while maternal IC displayed a positive relationship. However, CMS did not predict infant attachment security. Using The Reflective Functioning Questionnaire (RFQ) for construct validity, Fonagy et al. (2016) assessed the association between the PRFQ and general mentalizing. There

are two subscales of the RFQ, Certainty (RFQ_C, e.g. "*I always know how I feel*") and Uncertainty (RFQ_U, e.g. "*People's thoughts are a mystery to me*"). There was a negative association between the RFQ_C and PRFQ PM subscale. Additionally, the RFQ_U subscale was positively correlated with the PM subscale and negatively correlated with the CMS subscale.

Subsequently, the PRFQ has been validated in various languages (Table 1). Most studies supported the three-factor structure of the PRFQ, although some items were omitted during analysis. Overall, Cronbach's α or McDonald's ω values were acceptable for CMS and IC across all studies. However, for the Pre-Mentalizing subscale, these values were low in Chinese, Korean, and Danish samples (Ye et al., 2022; Lee et al., 2021; Wendelboe et al., 2021). Pazzagli et al. (2017) also investigated the relationship between the PRFQ and caregiver attachment style using the five subscales of the Attachment Style Questionnaire (ASQ; Feeney et al., 1994): Confidence (e.g. "*Overall, I am a worthwhile person.*"), Relationships as secondary (e.g. "*To ask for help is to admit that you are a failure.*"), The need for approval (e.g., "*It's important to me that others like me.*"), Discomfort with closeness (e.g., "*I find it hard to trust other people.*"), and Preoccupation with relationships (e.g., "*I worry that others won't care about me as much as I care about them.*"). A secure attachment style is characterized by high Confidence scores and low scores on the other subscales. All insecurity subscales were associated with PM among mothers. Discomfort with closeness had a negative association, while The need for approval, Preoccupation with relationships, and Relationships as secondary showed positive associations. IC and CMS were positively correlated with the Confidence subscale, and a negative correlation was found between the IC and the Relationships as a secondary subscale.

This study aimed to translate the Parental Reflective Functioning Questionnaire into Hungarian and investigate its three-factor structure. From a theoretical perspective, these three factors refer to relatively distinct features of parental mentalizing (Luyten et al., 2017). In addition, the PRFQ has been validated in various languages, and the majority of studies supported the PRFQ's three-factor structure (Wendelboe et al., 2021; Ye et al., 2022; Pazzagli et al., 2017; DeRoo et al., 2019; Moreira & Fonseca, 2023). The second objective was to assess its relationships with general reflective functioning, attachment dimensions, and caregivers' perceptions of their children among primary caregivers of children up to five years of age. In a previous study, Fonagy et al. (2017) used the PRFQ and RFQ to evaluate convergent validity. Moreover, given that literature suggests PRF's role in the intergenerational transmission of attachment (Fonagy et al., 2023), the

study also aimed to explore the relationship between PRF and caregivers' attachment styles, utilizing the Attachment Style Questionnaire, which had been previously used in Italian validation (Pazzagli et al., 2017). The investigation also measured the association between PRF and object relations, an essential indicator of early parent-child relationships (Danis et al., 2005). The Mothers' Object Relations Scale (MORS; Oates et al., 2018) was used to assess caregivers' representations of their infants in terms of Warmth (e.g. "*My child smiles at me.*") and Invasiveness (e.g. "*My child annoys me.*"), as it is a widely used questionnaire in Hungarian.

Hypotheses

We expected the Hungarian PRFQ to show the three-factor solution (Luyten et al., 2017).

Those with a low level of education and younger caregivers were hypothesized to demonstrate a higher level of Pre-Mentalizing (Luyten et al., 2017).

The RFQ_C and PM subscales were expected to have a negative correlation. In addition, we hypothesized that RFQ_U was positively correlated with PM and negatively correlated with CMS (Fonagy et al., 2016).

The PM was expected to be associated negatively with insecure attachment subscales, while CMS and IC were predicted to be positively correlated with Confidence (Pazzagli et al., 2017). A negative correlation was also expected between the IC and the Relationships as a secondary subscale.

A positive correlation was hypothesized between Warmth and IC, but a negative correlation was hypothesized between Invasiveness and IC. The PM was expected to be positively associated with Invasiveness and negatively related to the IC (Luyten et al., 2017).

Methods

Participants

The research was approved by the Faculty of Education and Psychology's Research Ethics Committee of Eötvös Loránd University (reference Nr: 2021/267-2). This study utilized an online questionnaire system (Qualtrics, 2020) for data collection. The sample was recruited from toddler-parent groups and forums on social media through volunteer sampling. Participants were informed about the principles of anonymity and confidentiality, and their written consent was obtained. No compensation was provided for participating in the study. The inclusion criteria required

participants to be primary caregivers (without any psychiatric diagnosis) of a child up to the age of 60 months. However, only two fathers completed the questionnaire packet and were consequently excluded from the analyses.

A total of 263 mothers completed the PRFQ and the RFQ. Among them, 201 mothers also completed the MORS and the ASQ. The mothers' ages ranged from 19 to 49 years (M = 34.63 years, SD = 5.55). Participants were asked to complete the questionnaire packet for a specific child if they had more than one child. Among the respondents, 245 completed the questionnaires for their first child (93.2%), while 18 mothers responded to their additional children (6.8%). Regarding gender distribution, 138 mothers (52.5%) provided responses about their sons and 125 mothers (47.5%) about their daughters. The age of the youngest child was one month, while the oldest was 60 months (M = 27.91 months, SD = 15.80). Other demographic characteristics are presented in Table 2.

Measures

The Parental Reflective Functioning Questionnaire (PRFQ; Luyten et al., 2017) comprises eighteen items scored on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree) (α = .70 - .82). The PRFQ was translated into Hungarian by two independent native Hungarian and English authors. After comparing the two versions, a third independent psychologist suggested additional modifications to the item wording. A mother with a medium level of education reviewed the items and proposed minor revisions to enhance questionnaire comprehension. Subsequently, an independent psychologist back-translated the final Hungarian version into English, which was then discussed with the scale developers.

The Reflective Functioning Questionnaire (RFQ; Fonagy et al., 2016) assesses general mentalizing with eight items scored on a scale from 1 (strongly disagree) to 7 (strongly agree). The questionnaire has two subscales: Certainty about mental states (RFQ_C; α = .63) and Uncertainty about mental states (RFQ_U; α = .77). The items of the RFQ need to be rescored before calculating the scales. RFQ_C evaluates agreement with statements like "*I don't always know why I do what I do*." so lower scores indicate a more genuine mentalization. For RFQ_C, the original seven-point scale is rescored to 3, 2, 1, 0, 0, 0, 0. Rescoring allows higher scores to represent greater certainty. Conversely, for RFQ_U, items such as "*Sometimes I do things without really knowing why*." were recoded to 0, 0, 0, 0, 1, 2, 3, thereby attributing very high scores to a stance characterized by

minimal knowledge about mental states. The Cronbach's α for RFQ_C was acceptable in the current sample (α = .75), whereas the Cronbach's α for RFQ_U fell below acceptable (α = .57). It is important to note that Cronbach's alpha is influenced by the number of items so that a lower alpha can be acceptable for shorter subscales (Taber, 2018; Vaske et al., 2017). Furthermore, Uncertainty is a more pathological aspect of mentalizing, and measuring it in a community sample could explain the lower Cronbach's α (Fonagy et al., 2016).

The Mothers' Object Relations Scale (MORS; Oates et al., 2018) is a 14-item questionnaire scored from 0 (never) to 5 (always), evaluating caregivers' perceptions of their infants in terms of Warmth (α = .79) and Invasiveness (α = .71). The MORS exhibited acceptable Cronbach's α in the present study (α = .76 - .82).

The Attachment Style Questionnaire (ASQ; Feeney et al., 1994) comprises 40 items scored from 1 (strongly disagree) to 6 (strongly agree) and includes five scales (α = .65 – .74, Hámori et al., 2016). In our sample, the Cronbach's α values for the subscales were acceptable (α = .71 – .86).

Statistical Analysis

Data were analyzed using Jamovi (The jamovi project, 2022) and IBM SPSS 20 (IBM Corp., 2011). Initially, we assessed the original three-factor structure of the PRFQ through confirmatory factor analysis with robust maximum likelihood estimation to account for deviations from multivariate normality assumptions. We considered several fit indices with the following limits (Brown, 2015): the root means square error (RMSEA; ≤ .06 good, ≤ 0.08 acceptable) with a 90% confidence interval (90% CI), the Comparative Fit Index (CFI; ≥ .95 good, ≥ .90 acceptable), the Tucker-Lewis Index (TLI; ≥ .95 good, ≥ .90 acceptable), Standardised Root Mean Square Residual (SRMR; ≤ .05 good, ≤ 0.08 acceptable).

Results

Structural validity

The fit indices of the initial three-factor model were not acceptable, even after adding correlations between error covariances (Table 3). Item 18 did not significantly load on the IC factor (p = .116). The modification indices indicated that item 11 cross-loaded on the IC and PM factors. Next, these two items were omitted from the subsequent CFA. As the RMSEA was unacceptable, we added correlations between error covariances among items that belonged to the same factor, had similar wording in Hungarian, and had residual covariances above 10. The model fit became acceptable (Figure 1).

The CMS and IC were positively associated, while the PM was independent of the other factors. Except for some items of the PM factor, all the item-total correlations were above .40 (Table 4). The standardized factor loadings were also low in the case of the PM, while in the case of the CMS and IC, the standardized factor loadings were high (Figure 1). Additionally, we examined Pearson's inter-item correlation coefficients per factor. The Pearson correlation coefficients were large for the CMS and IC items (Table 5). In the case of the PM, however, the coefficients were generally small (Table 6). Estimates of Cronbach's α were good for the CMS subscale (α = .90) and IC (α =.95), while the Cronbach's α of the PM was acceptable (α = .60). With the removal of more items, Cronbach's α would decrease. Furthermore, based on the standardized factor loadings (>.5), we could only keep two PM items, so we decided to keep the whole scale instead.

Convergent validity: associations with general mentalizing

Only Pre-Mentalizing modes were significantly associated with the severe general mentalizing impairments measured by the RFQ subscales. As expected, the RFQ Certainty subscale had a negative relationship with PM, while the Uncertainty subscale had a positive relationship with PM (Table 7). Both associations represented medium effect sizes. The other PRFQ subscales were not significantly related to the general mentalizing impairment subscales.

Associations with the demographic variables

The mothers' economic activity status was associated with PRFQ_IC (Table 8). The effect size was small. Actively working mothers and mothers on maternal leave showed more IC than unemployed,

chronically ill, and housewife mothers. The other demographic characteristics were not significantly related to the study variables.

Associations with attachment

The IC was unrelated to the attachment subscales (Table 9). However, CMS had a weak positive relationship with the Confidence subscale, the only "secure" scale. CMS was also negatively correlated with The need for approval and Preoccupation with relationships scales; the effect sizes were weak. PM correlated negatively with the Confidence subscale and positively with all the "insecure" subscales. The effect sizes ranged from small to medium.

Associations with object relations

The Warmth was positively related to the CMS and IC while negatively related to PM (Table 9). The effect size was small in the case of the IC and medium in the case of the PM and CMS. The Invasiveness showed the opposite relationship, except that it was unrelated to IC. The effect size was medium in the case of the CMS and large in the case of the PM.

Discussion

The primary objective of this study was to adapt The Parental Reflective Functioning Questionnaire to the Hungarian language. Confirmatory factor analysis confirmed the three-factor structure after the removal of two items. This exclusion of items is in line with previous research; for instance, Pazzagli et al. (2017) also removed item 11 from the Italian PRFQ, while Ye et al. (2022) and DeRoo et al. (2019) omitted items 11 and 18 in the Chinese and Canadian validation studies. Notably, items 11 and 18 are the sole reversed items in the PRFQ. As the literature indicates, the inclusion of both positively and negatively worded items can introduce difficulties, potentially measuring distinct underlying constructs (Weems & Onwuegbuzie, 2001).

The Cronbach's α values for CMS and IC were found to be excellent. In contrast, the Pre-Mentalizing subscale displayed a notably lower Cronbach's α. Our findings are in accordance with prior research, where overall, Cronbach's α or McDonald's ω was acceptable for CMS and IC in previous validation studies but exhibited low values for PM in Chinese, Korean, and Danish samples (Ye et al. 2022 Lee et al., 2021; Wendelboe et al., 2021). It is important to consider that lower alpha values can still be acceptable for shorter subscales (Taber, 2018; Vaske et al., 2017).

Furthermore, Pre-Mentalizing represents the most maladaptive facet of parental mentalizing captured by the PRFQ and thus might be more challenging to rate for mothers in a community sample (Luyten et al., 2017). It is also possible that the low Cronbach's α, item-total correlations and standardized factors loadings reflect the complexity of the PM subscale (Wendelboe et al., 2021). Item 1, "*The only time I'm certain my child loves me is when he or she is smiling at me*.", may reflect a teleological stance, which is excessively external. Likewise, a pretend mode of mentalizing, that is, seeing mental states as separate from reality, may be better captured by item 4, "*My child cries around strangers to embarrass me.*", item 10, "*My child sometimes gets sick to keep me from doing what I want to do*", and item 13, "*When my child is fussy he or she does that just to annoy me*.". Items 7, "*I find it hard to actively participate in make-believe play with my child.*", and 16, "*Often, my child's behaviour is too confusing to bother figuring out*." may indicate a complete disengagement from the mental world. Pearson's inter-item correlation coefficients for PM items were also mainly small, supporting the hypothesis that the items indicate different modes of Pre-Mentalizing. However, further replication of these findings and qualitative research is needed before any substantial conclusions can be drawn about potential differences in the meaning of these items. Upon removing more items from PM, Cronbach's alpha would decrease, and based on the standardized factor loadings, we could only keep two PM items, so we decided to keep the entire scale. Using the PM with fewer items has also been demonstrated to be problematic (Lee et al., 2021).

Those with a low level of education and younger caregivers were expected to demonstrate a higher level of Pre-Mentalizing (Luyten et al., 2017). However, only the mothers' economic activity status was associated with IC, and the effect size was small. Actively working mothers and mothers on maternal leave showed more IC than unemployed, chronically ill, and housewife mothers. In the original study, the number of working days was positively associated with IC (Luyten et al., 2017); however, we did not hypothesize this relationship as we measured economic activity status instead of the working day. Since increased stress levels are associated with a decreased mentalizing capacity (Fonagy et al., 2023), stress levels among unemployed and chronically ill mothers may affect their mentalizing capacity. As a result of the COVID pandemic, kindergartens and nurseries were closed, and there were many uncertainties; therefore, chronic illness or unemployment could be even more stressful, and being home all the time, not by choice, and spending excessive amounts of time with their children could make them less interested in their

children's mental states. We suggest that mentalizing-based interventions should focus on unemployed, chronically ill, and housewife mothers.

The RFQ_C and PM subscales were expected to have a negative correlation. In addition, we hypothesized that RFQ_U was positively correlated with PM and negatively correlated with CMS (Fonagy et al., 2016). In our study, the RFQ_C had a negative relationship with PM, while the RFQ_U had a positive relationship with PM. Both associations represented medium effect sizes. The current study's results align with previous research on the relationship between RFQ and PRFQ, indicating that these constructs are different and that measuring them separately is warranted (Luyten et al., 2017). Taken together, these findings are consistent with the assumption that the RFQ was developed to assess severe impairments in mentalizing (Fonagy et al., 2016), similar to the PRFQ PM subscale, but does not tap into potentially more positive features of mentalizing, such as Interest and Curiosity and Certainty about Mental States.

The PM was expected to be associated negatively with insecure attachment subscales, while Confidence was predicted to be positively correlated with CMS and IC (Pazzagli et al., 2017). A negative correlation was also expected between the IC and the Relationships as a secondary subscale. In our study, the IC subscale was unrelated to the attachment subscales. It is worth noting, however, that Pazzagli et al. (2017) found associations between the PRFQ and the ASQ among mothers of school-aged children, while according to Luyten et al. (2017), IC is independent of mothers' attachment anxiety and avoidance among mothers of children under the age of five. The CMS was positively related to the "secure" subscale and negatively correlated with The need for approval and Preoccupation with relationships scales; in line with the prior study, the effect sizes were weak (Pazzagli et al., 2017). As CMS measures the certainty of a child's mental state, it is not surprising that it is associated only with scales that measure attachment anxiety rather than avoidance. Consequently, higher scores on the CMS are more negatively associated with excessive focus on others as measured by the ASQ because higher scores on the CMS indicate more genuine certainty in the child's mental experience. Pre-Mentalizing had a negative relationship with the Confidence subscale and positive relationships with all the "insecure" subscales. The effect sizes ranged from small to medium, similar to the study by Pazzagli et al. (2017). Thus, our results indicate that among Hungarian mothers of children up to five years of age, Pre-Mentalizing is even more critical, as it is also associated with the security of the mothers' attachment besides all the insecurity dimensions.

A positive correlation was hypothesized between Warmth and IC, and a negative correlation was hypothesized between Invasiveness and IC. It was expected that the MORS subscales and PM would exhibit opposite patterns (Luyten et al., 2017). The Warmth perception was positively related to the CMS and IC while negatively related to the Pre-Mentalizing. The effect size was small in the case of the IC and medium in the case of the PM and CMS. The Invasiveness showed the opposite relationship, except that it was unrelated to the IC. The effect size was medium in the case of the CMS and large in the case of the PM. It is worth noting that Luyten et al. (2017) measured the infant-mother attachment using the Strange Situation Procedure, so the differences might be due to using the self-report MORS, as it relies on the mother's perception only. As a consequence of these associations of parental reflecting functioning, interventions targeting this skill set are widely used (Slade, 2005).

This study is not without limitations. Considering the cross-sectional nature of this study, future studies should replicate our findings using longitudinal designs. This study also relied on self-report measures only, which might involve reporting bias. There is also a need to further validate these findings among fathers and in clinical samples as well. The study only investigated structural and convergent validity but did not investigate other forms of validity, i.e., discriminant, predictive, and test-rest reliability.

Despite these limitations, our study provides the first preliminary evidence for the factor structure of the Hungarian PRFQ.

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Declaration of interest statement

No potential conflict of interest was reported by the authors.

Data Availability Statement

The dataset generated during and/or analyzed during the current study is available upon reasonable request from the corresponding author.

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Table 1

The summary of the previous PRFQ validation studies

Study	Sample	Statistical method	Final factor solution	Cronbach's α or McDonald's ω
Lee et al. (2021)	Korean	Exploratory factor analysis	Five factors: three factors similar to the original CMS, IC, PM and two additional PM factors. Shorter PM subscales are problematic.	ω of PM, IC, and CMS = .68, .76, and .82, respectively
Wendelboe et al. (2021)	Danish	Confirmatory factor analysis after removing items 7, 10, and 13	CMS, IC, PM	α of PM, IC, and CMS = .48, .69, and.75, respectively
Ye et al. (2022)	Chinese	Confirmatory factor analysis after removing items 10, 11, 12, 14, 18	CMS, IC, PM	ω of PM, IC, and CMS = .68, .76, and .82, respectively
Pazzagli et al. (2017)	Italien	Confirmatory factor analysis after removing items 6, 11, 14	CMS, IC, PM	α of PM, IC, and CMS = .67 , .62 , and .81, respectively
DeRoo et al. (2019)	Canadian	Confirmatory factor analysis after removing items 11 and 18	CMS, IC, PM	α of PM, IC, and CMS = .91, .88, and .88, respectively
Moreira & Fonseca (2023)	Portuguese	Confirmatory factor analysis	CMS, IC, PM	α of PM, IC, and CMS = .81, .88, and .89, respectively

Note. *CMS* Certainty about Mental States, *IC* Interest and Curiosity, *PM* Pre-Mentalizing

Table 2

Demographic characteristics (N = 263)

Demographics		*n* (%)
Residency		
	Capital city	97 (36.9)
	Town	105 (39.9)
	Smaller settlement	61 (23.2)
Economical activity status		
	Employed	65 (24.7)
	Maternal leave	187 (71.1)
	Other (Unemployed, chronically ill, housewife)	11 (4.2)
Level of education		
	Medium level (12 years) and low level (≤ 8 years)	89 (33.8)
	High level (university degree)	174 (66.2)
Financial status		
	Below the average	13 (4.9)
	Average	197 (74.9)

	Above the average	53 (20.2)
Relationship status		
	Married	168 (63.9)
	Partner relationship	62 (23.6)
	Other (single, divorced, window)	33 (12.5)

Table 3

The results of the confirmatory factor analyses (N = 263)

Model	χ^2	df	RMSEA	CI 90% RMSEA	CFI	TLI	SRMR	α_{CMS}	α_{IC}	α_{PM}
Three factors with 18 items	494.976*	132	0.102	0.093 - 0.112	0.872	0.852	0.102	.78	.91	.60
Three factors with 18 items adding correlations between error covariances	404.529*	127	0.092	0.081 - 0.101	0.902	0.883	0.096	.78	.91	.60
Three factors with 16 items	282.188*	101	0.083	0.071 - 0.094	0.931	0.919	0.073	.90	.95	.60
Three factors with 16 items adding correlations between error covariances	237.335*	98	0.074	0.062 - 0.085	0.947	0.935	0.068	.90	.95	.60

Note. CMS Certainty about Mental States factor, *IC* Interest and Curiosity factor, *PM* Pre-Mentalizing factor.

* $p < .001$

Table 4

Descriptive statistics and item-total correlations of The Parental Reflective Functioning Questionnaire items (N = 263)

	Mean(*SD*)	Corrected item-total correlation	Alpha if item deleted
Certainty about Mental States			
2 I always know what my child wants.	4.03(1.76)	.77	.87
5 I can completely read my child's mind.	3.37(1.67)	.75	.88
8 I can always predict what my child will do.	3.59(1.72)	.70	.89
14 I always know why I do what I do to my child.	5.38(1.89)	.73	.88
17 I always know why my child acts the way he or she does.	4.01(1.77)	.79	.86
Pre-Mentalizing			
1 The only time I'm certain my child loves me is when he or she is smiling at me.	1.46(1.11)	.23	.56
4 My child cries around strangers to embarrass me.	1.25(0.77)	.28	.54
7 I find it hard to actively participate in make believe play with my child.	2.34(1.63)	.31	.56

10 My child sometimes gets sick to keep me from doing what I want to do.	1.16(0.59)	.40	.52
13 When my child is fussy he or she does that just to annoy me.	1.24(0.71)	.40	.50
16 Often, my child's behavior is too confusing to bother figuring out.	1.94(1.23)	.43	.46
Interest and Curiosity			
3 I like to think about the reasons behind the way my child behaves and feels.	5.49(2.06)	.89	.94
6 I wonder a lot about what my child is thinking and feeling.	5.14(2.04)	.86	.94
9 I am often curious to find out how my child feels.	5.62(2.06)	.86	.94
12 I try to see situations through the eyes of my child.	5.16(1.97)	.87	.94
15 I try to understand the reasons why my child misbehaves.	5.36(2.06)	.86	.94

Table 5

Pearson's inter-item correlation coefficients of the CMS and IC scales

	CMS						IC				
	PRFQ2	PRFQ5	PRFQ8	PRFQ14	PRFQ17		PRFQ3	PRFQ6	PRFQ9	PRFQ12	PRFQ15
PRFQ2	—					PRFQ3	—				
PRFQ5	.695*	—				PRFQ6	.804*	—			
PRFQ8	.603*	.633*	—			PRFQ9	.802*	.828*	—		
PRFQ14	.644*	.595*	.543*	—		PRFQ12	.817*	.796*	.785*	—	
PRFQ17	.683*	.632*	.641*	.715*	—	PRFQ15	.847*	.747*	.761*	.816*	—

Note. CMS Certainty about Mental States, *IC* Interest and Curiosity

* $p < .001$

Table 6

Pearson's inter-item correlation coefficients of the Pre-Mentalizing items

	PRFQ1	PRFQ4	PRFQ7	PRFQ10	PRFQ13	PRFQ16
PRFQ1	—					
PRFQ4	.226**	—				
PRFQ7	.091	.066	—			
PRFQ10	.137*	.235**	.235**	—		
PRFQ13	.156*	.315**	.139*	.537**	—	
PRFQ16	.170**	.166**	.374**	.204**	.295**	—

Note. * $p < .05$, ** $p < .01$

Table 7

Descriptive statistics, reliabilities and bivariate relationships (Pearson's correlation coefficients) of study variables (N = 263)

	Min	Max	Mean	*SD*	Skewness	Kurtosis	Alpha	1	2	3	4	5
1. RFQ_C	0	3	1.43	0.79	0.31	-0.88	.75	—				
2. RFQ_U	0	2.83	0.42	0.45	0.72	-0.04	.57	-.61*	—			
3. PRFQ_CMS	1	7	3.87	1.49	-0.45	-0.53	.90	.05	-.07	—		
4. PRFQ_IC	1	7	5.35	1.9	0.34	-1.26	.95	-.07	.10	.77*	—	
5. PRFQ_PM	1	5.5	1.56	0.6	0.86	0.84	.60	-.39*	.32*	.01	.10	—

Note. RFQ_C The Reflective Functioning Questionnaire Certainty about mental states subscale, *RFQ_U* The Reflective Functioning Questionnaire Uncertainty about the mental states subscale, *PRFQ* The Parental Reflective Functioning Questionnaire, *CMS* Certainty about Mental States, *IC* Interest and Curiosity, *PM* Pre-Mentalizing.

* $p < .01$ ($\alpha = .05/5$, using Bonferroni correction)

Table 8

One-way ANOVA with Bonferroni post hoc group comparison of PRFQ_IC in relation to the activity status (N = 263)

Measure	1. Active		2. Maternal leave		3. Other		$F(2, 260)$	η^2	Post Hoc Test (Bonferroni)		
									Group comp.	Mean diff.	*p*
	M	*SD*	*M*	*SD*	*M*	*SD*					
PRFQ_IC	564.84	368.87	472.38	380.95	175.42	337.80	5.28*	.04	1 vs 2	92.46	.27
									1 vs 3	389.42	.005
									2 vs 3	296.96	.04

Note. PRFQ_IC The Parental Reflective Functioning Questionnaire Interest and Curiosity subscale

* $p = .006$

Table 9

Descriptive statistics, reliabilities and bivariate relationships (Pearson's correlation coefficients) of study variables (n = 201)

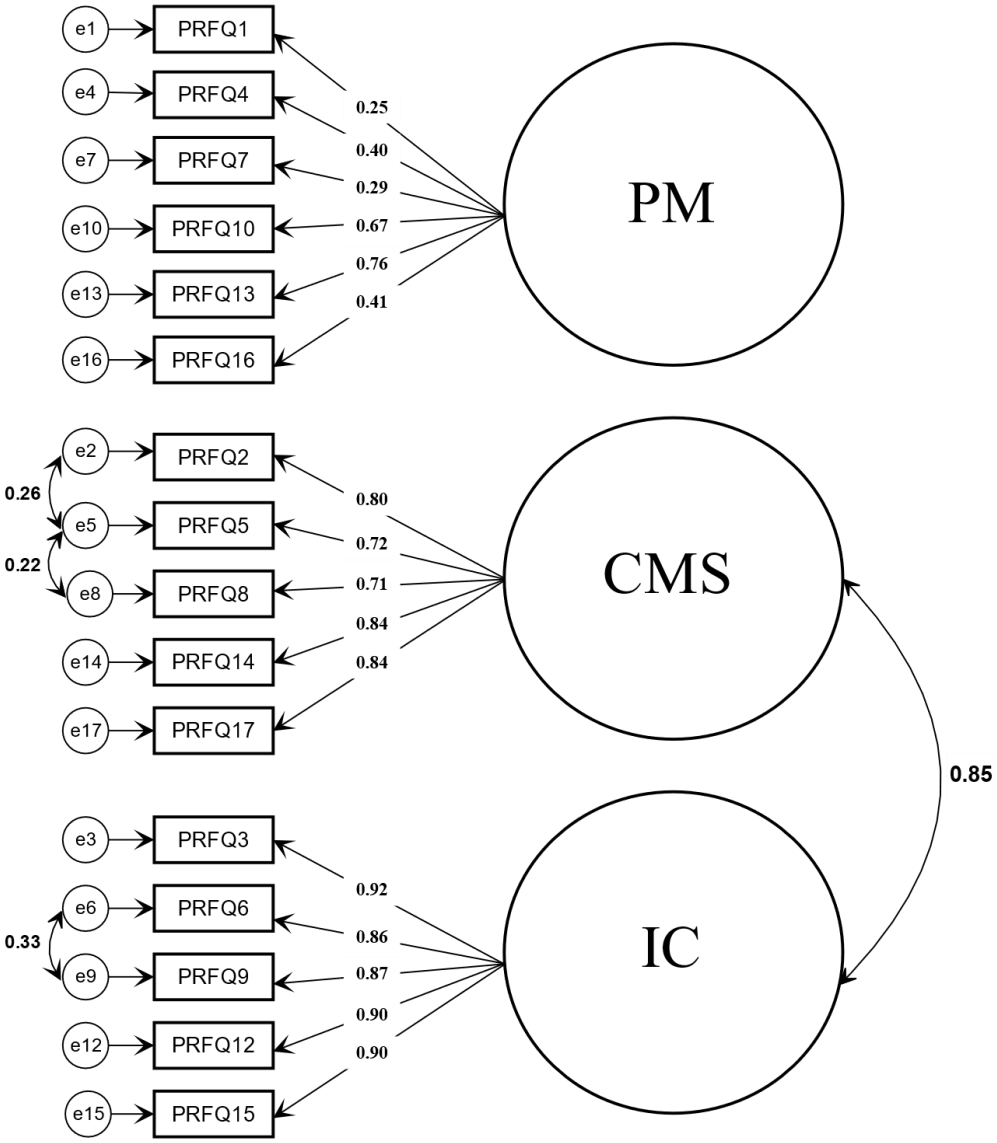
	Min	Max	Mean	*SD*	Skewness	Kurtosis	Alpha	1	2	3	4	5	6	7	8	9	10
1. PRFQ_CMS	1.40	7	4.33	1.08	-0.14	-0.02	.79	—									
2. PRFQ_IC	2.60	7	6.05	0.85	-0.97	0.71	.73	.35**	—								
3. PRFQ_PM	0	0.74	0.18	0.14	0.49	0.04	.51	-.30**	-.19**	—							
4. RS	7	32	16.40	5.58	0.40	-0.31	.71	-.13	-.02	.36**	—						
5. NA	7	42	19.58	7.18	0.77	0.14	.80	-.23**	-.14	.38**	.33**	—					
6. DC	12	57	35.28	9.73	0.12	-0.63	.86	-.13	.06	.18**	.51**	.33**	—				
7. PR	8	48	26.85	8.74	0.20	-0.68	.83	-.21**	-.07	.36**	.32**	.61**	.36**	—			
8. CR	11	48	32.99	7.70	-0.48	-0.04	.83	.28**	.13	-.28**	-.46**	-.52**	.68**	-.54**	—		
9. MORS-W	25	42	36.45	4.16	-0.66	-0.18	.82	.35**	.21**	-.48**	-.27**	-.25**	-.20	-.28**	.34**	—	
10. MORS-I	8	33	17.20	4.73	0.70	0.43	.76	-.34**	-.08	.57**	.28**	.30**	.27**	.41**	-.31**	-.36**	—

Note. N = 201. *PRFQ* The Parental Reflective Functioning Questionnaire, *CMS* Certainty about Mental States, *IC* Interest and Curiosity, *PM* Pre-Mentalizing, *RS* Relationships as secondary, *NA* The need for approval, *DC* Discomfort with closeness, *PR* Preoccupation with relationships, *CR* Confidence *MORS-I* Mothers' Object Relations Scales Short-Form Invasiveness subscale *MORS-W* Mothers' Object Relations Scales Short-Form Warmth subscale

* $p < .005$ ($\alpha = .05/10$, using Bonferroni correction.)

Figure 1

The final factor structure of The Parental Reflective Functioning Questionnaire Hungarian Version



Note. $N = 263$. Confirmatory factor analysis robust maximum likelihood estimation. *CMS* Certainty about Mental States factor, *IC* Interest and Curiosity factor, *PM* Pre-Mentalizing factor. Rectangles indicate measured variables, while small circles indicate error terms. Bold estimates are statistically significant ($p < .05$). Standardized factor loadings are shown.

Figure captions

Figure 1

The final factor structure of The Parental Reflective Functioning Questionnaire Hungarian Version