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Mentalizing in the parent-child relationship

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Theses of the dissertation

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Introduction

Mentalizing or reflective functioning enables us to understand ourselves and others as motivated by internal mental experiences such as thoughts and feelings (Bateman & Fonagy, 2004). Mentalizing is closely linked to the intergenerational transmission of attachment (Slade, 2005), therefore mentalizing-based psychotherapy (MBT) was initially used to treat borderline personality disorder (APA, 2013). However, later on, research indicated that various other mental disorders are linked to deficits in mentalizing (Fonagy et al., 2016), therefore mentalizing-based techniques are currently used in a variety of settings. Despite the importance of mentalizing in mental health, at the time of this dissertation, there were no validated Hungarian questionnaires to measure parental and adolescent mentalizing capacity. We aimed to fill this gap and adapt questionnaires which were already widely used in other languages in order to make it possible to assess adolescent mentalizing and parental reflective functioning in the Hungarian language. Our next objective was to measure these constructs' correlates with other measures of mental health in Hungarian samples, as no such studies were previously conducted. We aimed to focus on both adolescents' and their parents' mental health.

Literature review

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 emotion regulation capacities and thus can be expected to play a role in the intergenerational transmission of secure attachment (Fonagy et al., 2023). Previous studies also indicated that parental reflective functioning, stress, and parental sense of competence are related constructs (Nijssens et al., 2018; Luyten et al., 2017); however, it is also worth noting that most of the previous findings have been based on data from parents of small children.

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 ($\alpha = .70 - .82$). 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 (PRFQ-0-5), the PRFQ was later adapted for adolescents (PRFQ-A) while maintaining the same subscales. Subsequently, the PRFQ has been validated in various languages (Lee et al., 2021; Wendelboe et al., 2021; Ye et al., 2022; Pazzagli et al., 2017; DeRoo et al., 2019, Moreira & Fonseca, 2023). 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).

The capacity to mentalize plays a prominent role in the psychosocial adaptation of adolescents (Clarke et al., 2020). There has been a substantial amount of research examining the relationship between mentalizing and specific mental disorders in the past (Fonagy et al., 2016), however, only a few studies have examined the relationship between mentalizing and global measures of mental health in the context of adolescent psychopathology (Ballespí et al., 2018, 2021). However, quality of life has not been studied in relation to mentalizing capacity among adolescents. Our study aimed precisely for that: we evaluated the relationship of mentalizing with psychopathology and quality of life among adolescents.

Fonagy et al. (2016) developed The Reflective Functioning Questionnaire (RFQ) to measure adult mentalizing capacity, which consists of 46 items. The questionnaire includes two scales, Scale A and Scale B. The items on Scale B are polar-scored, with higher scores indicating a higher level of reflective function, e.g. *„I believe that people can see a situation very differently based on their own beliefs and experiences"* (1 = strongly disagree – 6 = strongly agree). Scale A is a median scale, with more genuine reflective functions toward the scale's midpoint, while extremely low or high scores reflect low levels of reflective function (strongly agree and strongly disagree = 2, disagree and agree = 4, disagree somewhat and agree somewhat = 6). This scale indicates that some uncertainty is healthy in mentalizing while being overly confident or having little confidence are both mentalizing difficulties, e.g. *„People's thoughts*

are a secret to me”. Sharp et al. (2009) adapted the adult version of the RFQ for adolescents, creating the Reflective Function Questionnaire for Youth (RFQY) by rephrasing the items.

Study 1: The adaptation of The Parental Reflective Functioning Questionnaire (0-5) to the Hungarian language and presentation of its psychometric characteristics

1. We aimed to translate the Parental Reflective Functioning Questionnaire (0-5) into Hungarian and investigate its three-factor structure.
2. The second objective was to assess the PRFQ's relationships with general reflective functioning, adult attachment dimensions, and caregivers' perceptions of their children among primary caregivers of children up to five years of age.

Study 2: The adaptation of The Parental Reflective Functioning Questionnaire Adolescent Version to the Hungarian language and presentation of its psychometric properties

3. We aimed to translate The Parental Reflective Functioning Questionnaire Adolescent Version into the Hungarian language and test its structural validity.

Study 3: What makes mothers feel competent? The relationship between parental reflective functioning, attachment style, parental competence, and stress

4. This study aimed to explore the bivariate relationships between parental reflective functioning, adult attachment style, perceived parental sense of competence and stress among mothers of adolescents between the ages of 12 and 18 years.
5. We hypothesized that the connection between adult attachment styles and parental competence is mediated by parental reflective functioning among mothers of adolescents. Furthermore, we expected that this connection is moderated by perceived stress (moderated mediation analysis), as the capacity to mentalize is dependent on the stress level.

Study 4: The Reflective Function Questionnaire for Youth: Hungarian adaptation and evaluation of associations with quality of life and psychopathology

6. This study aimed to translate the Reflective Function Questionnaire for Youth into Hungarian and present its psychometric properties.
7. We also expected that higher levels of mentalizing are related to lower levels of quality of life and psychopathology among adolescents.

Results

Study 1

The fit indices of the initial three-factor model were not acceptable, even after adding correlations between error covariances, $\chi^2(127) = 404.53, p < .001$, RMSEA = 0.09 CFI = 0.09, TLI = 0.88, SRMR = 0.09. 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, $\chi^2(98) = 237.34, p < .001$, RMSEA = 0.07 CFI = 0.95, TLI = 0.94, SRMR = 0.07. Estimates of Cronbach's α were good for the CMS subscale ($\alpha = .90$) and IC ($\alpha = .95$), while the Cronbach's α of the PM was acceptable ($\alpha = .60$). Only Pre-Mentalizing modes were significantly associated with the severe general mentalizing impairments measured by the RFQ subscales (Table 1). As expected, the RFQ Certainty subscale had a negative relationship with PM, while the Uncertainty subscale had a positive relationship with PM. Both associations represented medium effect sizes. The other PRFQ subscales were not significantly related to the general mentalizing impairment subscales. The IC was unrelated to the adult attachment subscales (Table 2). 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. The Warmth was positively related to the CMS and IC while negatively related to PM. 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.

Table 1*Bivariate relationships (Pearson's correlation coefficients) of the mentalizing scales (N = 263)*

	1	2	3	4	5
1. RFQ_Certainty	—				
2. RFQ_Uncertainty	-.61*	—			
3. PRFQ_Certainty in mental states	.05	-.07	—		
4. PRFQ_Interest and Curiosity	-.07	.10	.77*	—	
5. PRFQ_Pre-Mentalizing	-.39*	.32*	.01	.10	—

Note. RFQ The Reflective Functioning Questionnaire, PRFQ The Parental Reflective Functioning Questionnaire

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

Table 2*Bivariate relationships (Pearson's correlation coefficients) of study variables (n = 201)*

	1	2	3	4	5	6	7	8	9	10
1. PRFQ_CMS	—									
2. PRFQ_IC	.35**	—								
3. PRFQ_PM	-.30**	-.19**	—							
4. RS	-.13	-.02	.36**	—						
5. NA	-.23**	-.14	.38**	.33**	—					
6. DC	-.13	.06	.18**	.51**	.33**	—				
7. PR	-.21**	-.07	.36**	.32**	.61**	.36**	—			
8. CR	.28**	.13	-.28**	-.46**	-.52**	.68**	-.54**	—		
9. MORS-W	.35**	.21**	-.48**	-.27**	-.25**	-.20	-.28**	.34**	—	
10. MORS-I	-.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)

Study 2

Confirmatory factor analysis was used to examine the original three-factor structure on a Hungarian sample. The fit indices of the model were not acceptable on our data ($\chi^2 = 249.38$, $df = 132$, $p < .001$, $\chi^2/df = 1.89$, CFI = 0.862, TLI = 0.841, RMSEA = 0.061 (90% CI 0.049-0.073), and the fit could not be improved either by adding covariates or by omitting poorly fitting items. After the confirmatory factor analysis, we performed a principal component analysis with oblimin rotation. Items one, seven, ten, thirteen and eighteen and item four were omitted because of the small factor loadings. We also removed the sixteenth item, as retaining this item lowered the Cronbach's α coefficient (Cronbach's $\alpha = .61$). The analysis resulted in two factors with an eigenvalue greater than one. In the final model, the eigenvalues of the two factors were 3.37 and 2.16, respectively, the explained variance was 29.5% and 20.7%, a total of 50.2%. These factors corresponded to the subscales of CMS and IC of the original questionnaire. The Cronbach's α of the CMS was good (Cronbach's $\alpha = .81$), while Cronbach's α of the IC was acceptable (Cronbach's $\alpha = .70$).

Study 3

The Chi-square test did not indicate a significant relationship between the IC scale and the adult attachment styles, $\chi^2 (3, N = 186) = 4.84$, $p = .18$. The IC subscale was also not significantly related to the other study variables. CMS was negatively related to the perceived level of stress and positively associated with parental self-efficacy and role-satisfaction (Table 3). Furthermore, self-efficacy and role-satisfaction were negatively associated with the perceived level of stress.

Table 3

Bivariate relationships (Pearson's correlation coefficients) of study variables (N = 186)

	1	2	3	4
1. PSS	—			
2. PSOC Satisfaction	-.58*	—		
3. PSOC Efficacy	-.34*	.51*	—	
4. CMS	-.39*	.35*	.49*	—

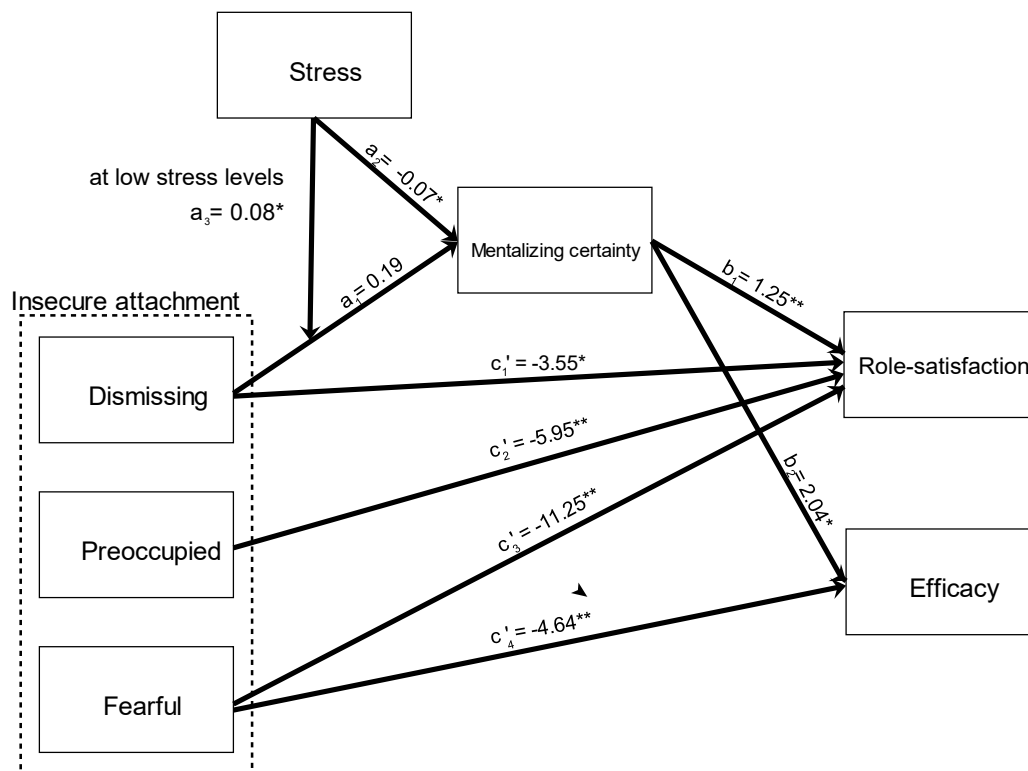
Note. PSS Perceived Stress Scale, PSOC the Parental Sense of Competence Scale, CMS Certainty about Mental States

* $p < .01$ ($\alpha = .05/4$, using Bonferroni correction)

Mothers with secure attachment styles showed higher levels of CMS and competence, while lower levels of stress compared to mothers with an insecure attachment style (For more in-depth results, see Tables 4 and 5). In the moderated mediation analysis (Figure 1), compared to the secure attachment style as a reference group, all the insecure attachment styles were related to lower levels of role-satisfaction. In the case of self-efficacy, only the fearful attachment style showed a negative association. At low levels of stress the relationship between dismissing attachment style and role-satisfaction was mediated by CMS ($a_{1L}b_1 = -0.97$, $[-1.97 - -0.23]$), while at high levels of stress the indirect effect was not significant ($a_{1H}b_1 = 0.49$, $[-0.43 - 1.75]$). Furthermore, at low levels of stress the relationship between dismissing attachment style and self-efficacy was mediated by CMS ($a_{1L}b_2 = -1.57$, $[-2.91 - -0.49]$), while at high levels of stress the indirect effect was not significant ($a_{1H}b_2 = .80$, $[-0.76 - 2.43]$).

Fig. 1

Moderated mediation analysis ($N = 186$)



Note. ASQ the Attachment Style Questionnaire, CMS Certainty about Mental States, a_i , b_i , c'_i unstandardized regression coefficients. The analysis was controlled for the economical activity status.

* $p < .05$, ** $p < .001$

Table 4

One-way ANOVA with Bonferroni post hoc group comparison of study variables in relation to the maternal attachment style (N = 186)

Measure									<i>F</i> (3,182)	η^2	Post Hoc Test (Bonferroni)		
	1. Secure		2. Preoccupied		3. Dismissing		4. Fearful				Group comp.	Mean diff.	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>					
PSS	17.87	6.33	22.53	5.85	24.44	6.18	30.77	6.59	28.64*	.32	1 vs 2	-4.66	.001
											1 vs 3	-6.57	< .001
											1 vs 4	-12.90	< .001
											2 vs 3	-1.91	.79
											2 vs 4	-8.24	< .001
											3 vs 4	-6.33	< .001
Satisfaction	39.81	5.63	35.62	6.12	33.44	5.44	27.23	5.74	9.70*	.35	1 vs 2	4.19	.001
											1 vs 3	6.37	< .001
											1 vs 4	12.58	< .001
											2 vs 3	2.18	.38
											2 vs 4	8.39	< .001
											3 vs 4	6.21	< .001
CMS	4.78	1.12	4.26	.96	4.43	.96	3.69	1.13	6.58*	.10	1 vs 2	.52	.08
											1 vs 3	.35	.52

1 vs 4	1.09	< .001
2 vs 3	-.17	1.00
2 vs 4	.57	.20
3 vs 4	.74	.04

Note. PSS Perceived Stress Scale, *Satisfaction* Parental Sense of Competence Scale Satisfaction subscale, *CMS* Certainty about Mental States

* $p < .02$ ($\alpha = .05/3$, using Bonferroni correction)

Table 5

The Welch's ANOVA (W-test) with Bonferroni post hoc group comparison of Efficacy in relation to the maternal attachment style (N = 186)

											Post Hoc Test (Bonferroni)			
Measure	1. Secure		2. Preoccupied		3. Dismissing		4. Fearful		$F(3,82.14)$	ω^2	Group comp.	Mean diff.	p	
	M	SD	M	SD	M	SD	M	SD						
Efficacy	25.90	4.94	23.13	6.02	23.96	4.51	19.50	5.36	9.40*	.12	1 vs 2	2.78	.04	
											1 vs 3	1.94	.29	
											1 vs 4	6.40	< 0.001	
											2 vs 3	-0.83	1.00	
											2 vs 4	3.63	.03	
											3 vs 4	4.46	.01	

Note. The condition of equality of variances was violated ($p = .03$); therefore, a robust procedure was used. *Efficacy* The Parental Sense of Competence Scale Efficacy subscale

* $p < .01$

Study 4

Parallel analysis indicated that the four-factor solution fits the current sample the best, therefore an EFA with fixed four factors was conducted. Items with small communalities (<0.02) were removed in each step and the EFA resulted in four factors. In the final model, the eigenvalues of the four factors were 6.30, 3.59, 2.50, 1.63, respectively, the explained variance was 21.01%, 11.95%, 8.34%, 5.43%, and a total of 46.73%. The first two factors correspond to Perkins' (2009) Internal-self and Internal-other factors. Our third factor was named Self-other since these items capture the awareness of how one's behaviour impacts others and how others' behaviour affects one's mental states. Strong emotions is the fourth factor, indicating that mentalizing difficulties are associated with strong emotions. The Cronbach's α coefficients of the scales were .81, .82, .67 and .80, respectively. The Internal-self subscale of the RFQY showed a weak positive association with the Internal-other subscale and with the Self-other subscale and was moderately negatively associated with Strong emotions, internalizing and externalizing symptoms (Table 5). The association between the Internal-self subscale and quality of life was positive and moderate in strength. Furthermore, the Internal-other subscale was weakly associated with the Self-other, internalizing symptoms and quality of life. The Self-other scale and quality of life had a positive relationship with the Internal-Other subscale, while internalizing symptoms were negatively related to the Internal-Other subscale. The Self-other subscale was also weakly, and moderately related to the externalizing symptoms, while the Strong emotions was weakly associated with internalizing symptoms and quality of life, and moderately related to externalizing symptoms. The association with both types of symptoms was positive, while it was negative in the case of the quality of life.

Table 5*Bivariate relationships (Pearson's correlation coefficients) of study variables (N = 384)*

	1	2	3	4	5	6	7
1. Internal-self	—						
2. Internal-other	.23*	—					
3. Self-other	.29*	.17*	—				
4. Strong emotions	-.51*	-.11	-.13	—			
5. SDQ Internalizing symptoms	-.43*	-.14*	-.03	.22*	—		
6. SDQ Externalizing symptoms	-.46	-.01	-.38*	.40*	.25*	—	
7. Quality of life	.50*	.17*	.13	-.24*	-.67*	-.38	—

Note. SDQ The Strengths and Difficulties Questionnaire, *Quality of life* the Erfassung der Lebensqualität Kindern und Jugendlichen total score.

* $p < .007$ ($\alpha = .05/7$, using Bonferroni correction)

Theses

1. We aimed to translate the Parental Reflective Functioning Questionnaire (0-5) into Hungarian and investigate its three-factor structure

Confirmatory factor analysis confirmed the three-factor structure after the removal of two items. 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 .

2. The second objective was to assess its relationships with general reflective functioning, adult attachment dimensions, and caregivers' perceptions of their children among mothers of children up to five years of age.

In our study, the RFQ_C had a negative relationship with PM, while the RFQ_U had a positive relationship with PM. The IC subscale was unrelated to the attachment subscales. The CMS was positively related to the "secure" subscale and negatively correlated with The need for approval and Preoccupation with relationships scales. Pre-Mentalizing had a negative relationship with the Confidence subscale and positive relationships with all the "insecure" subscales. The Warmth perception was positively related to the CMS and IC while negatively related to the Pre-Mentalizing. The Invasiveness showed the opposite relationship, except that it was unrelated to the IC.

3. We aimed to translate The Parental Reflective Functioning Questionnaire Adolescent Version into the Hungarian language and test its structural validity

The fit indices of the original three-factor model were not acceptable on our data, therefore, exploratory factor analysis was also conducted. In the end, the PM items were all omitted and item 18 was also removed from the IC items. The Cronbach's α of the CMS was good, while Cronbach's α of the IC was acceptable.

4. We aimed to explore the bivariate relationships between parental reflective functioning, adult attachment style, perceived parental sense of competence and stress among mothers of adolescents between the ages of 12 and 18 years.

Mothers with a secure attachment style showed higher rates of parental competence and CMS, while lower levels of stress compared to mothers with insecure attachment styles. Stress was negatively related to CMS and parental competence, while CMS and parental competence were positively associated. The IC subscale was not significantly related to the other study variables.

5. We hypothesized that the connection between attachment styles and parental competence was mediated by parental reflective functioning among parents of adolescents. Furthermore, we expected this connection to be moderated by perceived stress (moderated mediation analysis), as the capacity to mentalize depends on the stress level.

The insecure attachment styles all predicted lower levels of parental role-satisfaction, while the fearful attachment style further predicted lower levels of parental efficacy. In the case of the dismissing attachment style, besides the attachment style itself, CMS and the levels of stress were also important predictors of the parental sense of competence.

6. Our aim was to translate the Reflective Function Questionnaire for Youth into Hungarian and present its psychometric properties.

We identified four factors of the RFQY: Internal-self, Internal-other, Self-other, and Strong emotions. The subscales showed adequate psychometric properties.

7. We also expected higher levels of mentalizing to be related to lower levels of quality of life and psychopathology among adolescents.

Youth's quality of life was associated with internal-self and internal-other mentalizing besides strong emotions. Externalizing symptoms were related to the internal-self, self-other domains of mentalizing, and also strong emotions. Internalizing symptoms were related to internal-self and internal-other mentalizing besides strong emotions.

New results

My doctoral work contributed the following new findings to our field of study:

- Prior to our studies, there were no measures in the Hungarian language to assess parental reflective functioning. We adapted both versions of the Parental Reflective Functioning questionnaire into Hungarian, which showed adequate psychometric properties.
- In the Hungarian population, research was lacking regarding the associations between adult attachment, object relationships, and mentalizing. Our research indicates, that parental reflective functioning, especially Pre-Mentalizing is associated with general mentalizing, maternal attachment dimensions and object relations among mothers of children up to five years of age. Based on these results, we recommend mentalizing-based interventions for mothers.
- To the best of our knowledge, no prior study assessed the relationships between maternal attachment, reflective functioning, competence and stress among mothers of adolescents. We identified associations between maternal attachment and competence, which indicate that it is important to target the attachment style itself during psychotherapy for mothers who have insecure attachment styles. The results of our study indicate that reducing stress is an important element of interventions for mothers with insecure attachment styles. Besides reducing stress, our findings suggest that targeting parental mentalizing during therapeutic work with mothers of adolescents with dismissing attachment styles can also increase their perceived parental competence.
- The Hungarian version of the Reflective Function Questionnaire for Youth was proved to have adequate psychometric properties. (This instrument had not previously been validated in the Hungarian language).
- In the context of adolescent psychopathology, there was a gap in the literature regarding the relationship between mentalizing and global measures of mental health. Additionally, the

relationship between quality of life and mentalizing capacity has not been studied in adolescents. The present study is the first to demonstrate that mentalizing deficits in adolescents are associated with psychopathology and poorer quality of life.

Discussion

In studies 1 and 2, we aimed to confirm the three-factor structure of both versions of the PRFQ. In the case of the PRFQ-0-5, we confirmed the three-factor solution. In the case of the adolescent version, only two factors emerged: Certainty about Mental States and Interest and Curiosity subscales, while the Pre-Mentalizing factor completely disappeared. In the case of the PRFQ-0-5, we addressed many psychometric limitations for the use of the Pre-Mentalizing scale, including the nature of the community sample and the complexity of the scale. However, besides the limitations, we also highlighted the importance of measuring PM, as it was associated with general mentalizing, attachment and object relations.

The results of Study 3 indicate that it is important to target the attachment style itself during psychotherapy for mothers who have insecure attachment styles. Additionally, in the case of the fearful attachment style, the attachment style also affects parental efficacy, which is the cognitive component of parental competence. In sum, it is necessary to address the cognitive consequences of the fearful attachment style on parental efficacy during interventions. Our findings suggest that stress reduction is an important component of interventions for mothers with dismissing attachment styles, as even lower levels of stress can decrease their ability to mentalize. Besides reducing stress, our findings suggest that targeting parental mentalizing during therapeutic work with mothers of adolescents with dismissing attachment styles can also increase their perceived parental competence. No prior study assessed these associations among mothers of adolescents.

In study four we adapted the RFQY into Hungarian. We identified four factors of the RFQY: Internal-self, Internal-other, Self-other, and Strong emotions. The subscales showed adequate psychometric properties. An important correlate of mental health problems is mentalizing capacity, which appears to be particularly influential during adolescence (Clarke et al., 2020). However, only a few studies have examined the relationship between mentalizing and global measures of mental health in the context of adolescent psychopathology (Ballespí et al., 2018, 2021). In addition, quality of life has not been studied in relation to mentalizing capacity among adolescents. Based on our results, to improve youth's quality of life, we recommend focusing on internal-self and internal-other mentalizing besides emotion

regulation. In case of externalizing symptoms, targeting the internal-self and the self-other domains of mentalizing, and improving emotion regulation could be beneficial. For adolescents suffering from internalizing symptoms, we recommend aiming at enhancing internal-self and internal-other mentalizing besides focusing on emotion regulation.

List of publications used in the dissertation:

- Szabó, B.,** Futó, J., Luyten, P., Boda, M., & Miklósi, M. (2023). The psychometric properties of the Hungarian Parental Reflective Functioning Questionnaire. *European Journal of Developmental Psychology*, 1-18. <https://doi.org/10.1080/17405629.2023.2276482>
- Szabó, B.,** Miklósi, M., Boda, M., & Futó, J. (2022). The adaptation of The parental reflective functioning questionnaire adolescent version to the Hungarian language and presentation of its psychometric characteristics. *Psychiatria Hungarica: A Magyar Pszichiatriai Tarsasag tudomanyos folyoirata*, 37(2), 150-165.
- Szabó, B.,** Futó, J., & Miklósi, M. (In Press). What makes mothers feel competent? *Psihologija*
- Szabó, B.,** Sharp, C., Futó, J., Boda, M., Losonczy, L., & Miklósi, M. (2024). The reflective function questionnaire for youth: Hungarian adaptation and evaluation of associations with quality of life and psychopathology. *Clinical child psychology and psychiatry*, 13591045241252205. <https://doi.org/10.1177/13591045241252205>

List of publications during the PhD scholarship period, which are not included in my dissertation:

- Szabó, B.,** Futó, J., & Miklósi, M. (2023). The relationship between mothers' attachment style, mindful parenting, and the perception of their child. *Československá psychologie*, 67(5), 260-272. <https://doi.org/10.51561/cspsych.67.5.260>
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- Tamás, B., & **Szabó, B.** (2023). Adolescents' quality of life in the light of mentalization and emotion regulation. *Psychiatria Hungarica: A Magyar Pszichiatriai Tarsasag tudomanyos folyoirata*, 38(2), 121-128.
- Cserép, M., **Szabó, B.**, Tóth-Heyn, P., Szabo, A. J., & Szumska, I. (2022). The Predictive Role of Cognitive Emotion Regulation of Adolescents with Chronic Disease and Their Parents in Adolescents' Quality of Life: A Pilot Study. *International Journal of Environmental Research and Public Health*, 19(23), 16077. <https://doi.org/10.3390/ijerph192316077>
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Due to the page limits, the details of 43 conference presentations made during the period of the PhD scholarship can be seen at this link: <https://m2.mtmt.hu/api/publication?format=html&labelLang=hun&sort=publishedYear,desc&cond=authors;eq;10075558>

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