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MENTALIZATION IN EARLY ADOLESCENCE AND ITS ASSOCIATIONS
WITH ATTACHMENT, ABUSE AND EMOTIONAL
AND BEHAVIORAL DIFFICULTIES

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VILNIAUS UNIVERSITETAS

LINA GERVINSKAITĖ-PAULAITIENĖ

MENTALIZACIJA ANKSTYVOJE PAAUGLYSTĖJE IR JOS SAŠAJOS
SU PRIERAIŠUMU, SMURTO PATYRIMU IR EMOCINIAIS
BEI ELGESIO SUNKUMAIS

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1. LITERATURE REVIEW

1.1. Mentalization concept and mentalization in adolescence

Mentalization is a capacity to understand oneself and others in terms of subjective states and mental processes (Fonagy & Bateman, 2007). It is both an explicit and implicit understanding of behavior in relation to intentional mental states, such as desires, needs, emotions, beliefs, goals, and thoughts (Allen, Fonagy, & Bateman, 2008). Mentalization is a multi-component phenomenon characterized by four dimensions: (1) self-oriented or other-oriented; (2) based on external or internal features; (3) controlled (explicit) versus automatic (implicit); and (4) cognitive or affective (Fonagy, Bateman, & Bateman, 2011; Luyten & Fonagy, 2015).

The concept of mentalization is one of several related concepts (such as social cognition, theory of mind, etc.) used to describe the ability to understand the mental world of oneself and other. The framework of this thesis is the concept of mentalization developed by Fonagy and his colleagues (Fonagy, Gergely, Jurist, & Target, 2004; Fonagy, Steele, Steele, Moran, & Higgitt, 1991; Fonagy & Target, 1997). In this psychodynamic framework the concept of reflective functioning (*hereinafter referred to as RF*) is often used as operationalization of mentalizing in attachment relationships. It is important to note that mentalization is in part a trait-like capacity and it is also a process, an activity of mentalizing, which is to a certain extent related to relationships and context (Luyten & Fonagy, 2015). This dissertation will focus on trait-like part of mentalization.

Good mentalization is considered to be one of the essential skills in adaptive development (Luyten & Fonagy 2015), and it is believed to have an important role in emotion regulation, development of the self and self-agency, mental health, resilience, successful social relationships (Allen et al., 2008). Impaired mentalization, on the other hand, may be associated with psychopathology (Fonagy et al., 2011). Multidimensionality of mentalization determines that its disturbances can be manifest in several different ways. Different kinds of psychopathology can be related to different disruptions of mentalization. As a result, the evaluation of mentalization ability depends on detailing a mentalizing profile, i.e. its functioning according to each dimension of mentalization (Luyten et al., Fonagy, Bateman, & Bateman, 2011).

The above raises some challenges in the assessment of mentalization as at this point there is no measure capable of evaluating whole mentalizing profile in adolescents. Some studies employ measures that provide a general estimate of mentalization level, e. g. reflective functioning scales (Ensink, Bégin, Normandin, & Fonagy, 2016; Ha, Sharp, Ensink, Fonagy, & Cirino, 2013; Taubner, White, Zimmermann, Fonagy, & Nolte, 2013) which encompass all dimensions but does not offer a possibility of evaluating all of the dimensions separately. Other studies separately evaluate narrower aspects of mentalization (Sharp, 2008) or combine different measures to assess several dimensions (Rutherford et al., 2012).

For a while mentalization or a theory of mind (*hereinafter referred to as ToM*) which represents a part of mentalization were mostly studied in early childhood (e. g. Bretherton & Beeghly, 1982; Meins, Fernyhough, Russell, & Clark-Carter, 1998; Ruffman, 2014; H Steele, Steele, Croft, & Fonagy, 1999) or adulthood (Katznelson, 2014), with some studies conducted in middle childhood (Sharp, Croudace, & Goodyer, 2007). Thus, for some time mentalization in adolescence received less attention and its role in adaptive and maladaptive development has not been widely studied. Recently, the interest in mentalizing in adolescence has been growing (Bosco, Gabbatore, & Tirassa, 2014; Keulers, Evers, Stiers, & Jolles, 2010; Scopesi, Rosso, Viterbori, & Panchieri, 2015; Taubner & Curth, 2013; Taubner, Zimmermann, Ramberg, & Schröder, 2016), but it is agreed that social cognition (including mentalization) is clearly understudied and there is a lack of a general theoretical approach that could integrate research results (Borelli, Compare, Snavely, & Decio, 2014; Brizio, Gabbatore, Tirassa, & Bosco, 2015).

Mentalization in adolescence is related to essential developmental tasks which an adolescent must complete to successfully move forward into adult life. The tasks include strengthening the sense of identity and the ability to establish meaningful relationships with others (Scopesi et al., 2015). Impaired mentalization can make it harder to complete the tasks. Early adolescence, the developmental period between age 11 – 14 (Blakemore & Mills, 2014; Twenge & Park, 2017), represents the transitional phase from childhood to adolescence (Natarajan, 2013). It is an essential stage which can help better understand the emergence and development of psychopathology in youth (Dahl & Gunnar, 2009; Schwerdtfeger Gallus, Shreffler, Merten, & Cox, 2015) and the role of mentalization in it.

1.2. Attachment and mentalization

Since the beginning of development of mentalization theory authors have been describing mentalization as essentially interpersonal in nature (Fonagy et al., 1991; Fonagy & Target, 1997). Significance of early attachment security to development of mentalizing is theoretically described in greater detail with empirical evidence confirming such assumptions, but the links between attachment and child's mentalizing are much less grasped and studied at middle childhood and adolescence (Gervinskaitė-Paulaitienė & Barkauskienė, 2016a). It is postulated that, in later stages of development, the attachment relationships should help broaden and strengthen development and quality of mentalization (Luyten & Fonagy, 2015). In middle childhood changes in the attachment system begin: there is a move towards more integrated attachment representations (Dwyer, 2005), the importance of perceived availability of parents increases and importance of friends as attachment figures starts to slowly grow (Bosmans & Kerns, 2015). In order to understand the possible relationship between attachment and mentalization from middle childhood to adolescence, it is necessary to consider these changes of attachment system and emotional, cognitive, social and neuro developmental changes associated with puberty in adolescents, which both can influence development and expression of mentalization.

It can be assumed that in later development the same as in early, attachment security will be related to better mentalization. If attachment security is regarded more as a characteristic of a child in middle childhood (Mayseless, 2005), we could expect that a child with secure attachment will be more open to psychological world of oneself and other, whereas an insecure child will have some difficulties in mentalizing. Cross-sectional studies show that attachment security is related to less difficulties in identifying emotions in middle childhood (Brumariu, Kerns, & Seibert, 2012), better theory of mind in early adolescence (Humfress, O'Connor, Slaughter, Target, & Fonagy, 2002). Other research results indicate that only the preoccupied (Hünefeldt et al., 2013) or disorganized (Colle & Del Giudice, 2011; Venta & Sharp, 2015) attachment is related to worse mentalizing. Building on these results, similar longitudinal relationships could be anticipated. On the other hand, we can assume that social, cognitive, emotional and

physiological changes can also influence mentalizing development and affect its quality and complexity. There is lack of empirical studies analyzing the links longitudinally.

1.3. Mentalization and emotional and behavioral difficulties in adolescence

Emotional difficulties in adolescence are understood as a lack of consolidation of mentalization (Fonagy et al., 2004). Literature suggests that internalizing (including anxiety, depression, somatic) problems should in fact be related to poor mentalization (Sharp & Venta, 2012). Despite that, there is still a lack of detailed theoretical conceptualizations and empirical studies on links between mentalization and emotional problems in early adolescence.

Results of the existing sparse studies on relationships between overall internalizing problems and mentalization show that internalizing difficulties are related to poorer mentalizing in close relationships (Ostler, Bahar, & Jessee, 2010), but they are not related to biased mentalizing in childhood (Sharp et al., 2007) and explanation of behavior reasons of other people in adolescence (Gervinskaitė-Paulaitienė, 2015). There are also studies showing that the better emotional understanding is related to more internalizing problems in middle childhood (Göbel, Henning, Möller, & Aschersleben, 2016).

Depression symptoms are associated with a poorer reflective function in childhood and early adolescence (Ensink et al., 2016) and with a lower level of mentalization in a clinical sample of adolescents and young adults (Murri et al., 2016). Contrary to that, there are the results showing that the level of reflective function does not differ between the adults diagnosed with recurrent clinical depression and the ones with no psychiatric disorders (Taubner, Kessler, Buchheim, Kächele, & Staun, 2011).

The overview of studies that measure constructs related to mentalization allows us to see that there is evidence of links between poorer emotional understanding and depression symptoms in children (Flynn & Rudolph, 2014; Siener & Kerns, 2012), adolescent girls (Rubenstein et al., 2015). Relationships between the theory of mind or, more specifically, between the recognition of mental states from nonverbal cues and depressive symptoms seems to be inconsistent. Some studies find a better ability to infer mental states from the eye region in depressed adolescent boys (Mellick & Sharp, 2016),

others show negative (Lee, Harkness, Sabbagh, & Jacobson, 2005), positive (Harkness, Sabbagh, Jacobson, Chowdrey, & Chen, 2005) or no associations (Wolkenstein, Schönenberg, Schirm, & Hautzinger, 2011) in adults.

There is a limited number of studies separately analyzing the links between anxiety and abilities related to mentalization, with almost no data on the possible role of the reflective function in adolescent anxiety problems. Mathews, Koehn, Abtahi and Kerns (2016) in their meta-analysis of 12 studies revealed that anxious children tend to have lower emotional awareness, have a poorer understanding of emotions, but show no differences in the recognition of emotions. These links are different in adults with significant generalized anxiety symptoms – they exhibit better emotional awareness (Novick-Kline, Turk, Mennin, Hoyt, & Gallagher, 2005). One of the rare studies on the theory of mind identifies that higher social anxiety in adults is related to a worse ability to recognize mental states from eyes and to lower scores in complex social understanding (advanced ToM) (Hezel & McNally, 2014).

The existing studies point to possible links between poor RF and depression or overall internalizing symptoms, but there is not enough certainty at this point how RF could be related to anxiety problems. It is even more difficult to generalize how narrower aspects of mentalization relate to emotional problems as studies suggest conflicting evidence. It seems that we could expect some impairment of emotional mentalization in relation to internalizing problems, yet it is not clear to what extent. The links between ToM and emotional problems appear to have mixed evidence as well.

Behavioral difficulties are characterized by more or less destructive, aggressive interactions with other people, problems in behavior regulation that point to a possible role of impaired mentalization in externalizing (including conduct, oppositional defiance) problems. The existing research confirms that externalizing problems are related to poorer reflective functioning (Ensink et al., 2016) or mentalization in the context of past and present relationships (Ostler et al., 2010) in children and young adolescents. The studies by Taubner and colleagues (2010, 2013) also reveal that worse reflective functioning is related to more proactive aggression in adolescence and young adulthood. Moreover, biased mentalizing was found to be linked to conduct problems in middle childhood at baseline (Sharp et al., 2007) and at one-year follow up (Ha, Sharp, & Goodyer, 2011).

In order to further describe possible associations between behavioral problems and mentalization, we have to build on studies analyzing different components of emotional understanding, and also theory of mind. Research results show that children with conduct problems are less successful in explaining reasons of emotions compared to their peers with no conduct problems (Bohnert, Crnic, & Lim, 2003; Nader-Grosbois, Houssa, & Mazzone, 2013). Poor emotional awareness and emotion understanding are related to higher aggression towards peers in early adolescence (McLaughlin, Hatzenbuehler, Mennin, & Nolen-Hoeksema, 2011). Impairments in emotion identification predict impulsive aggression in young adults (Fossati et al., 2009). However, there are studies which show that the complex emotion understanding, consisting of several elements, is not related to externalizing problems in middle childhood (Göbel et al., 2016) or that understanding of others' emotions (measured as affective ToM) is not related to conduct problems in adolescents (Sebastian et al., 2012). Other studies detailing the links showed that poorer ability to understand emotions in other people was related to more conduct problems only for girls, yet oppositional defiance was not related to the quality of understanding of emotional states of others (Gambin & Sharp, 2016).

Furthermore, cognitive theory of mind (as accuracy of understanding intentions of others) is not associated with conduct problems as well (Jones, Forster, & Skuse, 2007). One of the rare studies which separately analyzed oppositional defiance symptoms found that worse cognitive ToM performance (visual perspective understanding) was related to higher oppositional defiance in children (Dinolfo & Malti, 2013). However, another aspect of ToM – ability to infer mental states from eyes' region – is found to be significantly worse in children and young adolescents (Sharp, 2008) and adolescents of different age with conduct problems (Gervinskaitė-Paulaitienė & Barkauskienė, 2014).

Although research on mentalization as a correlate or a risk factor of behavioral problems is not very numerous, part of the studies analyzes mentalization directly, some of them using mentalization theory as organizing framework, which facilitates the integration of results. The reviewed research allows us to expect conduct problems to be related to some impairments of mentalization, particularly in reflective functioning or overall quality of mentalization. Even though there are some contradictory results, more evidence suggest that we could also expect poorer affective mentalization and externally

oriented mentalization in adolescents with conduct problems. Relationships between oppositional defiance as a separate disorder and mentalization or related constructs are very poorly researched and therefore it is still difficult to generalize the knowledge on the basis of research.

1.4. Mentalization as a mediator between attachment and emotional and behavioral difficulties

Research studies, reviews, and meta-analysis quite consistently reveal links between attachment insecurity and externalizing (Fearon, Bakermans-Kranenburg, van IJzendoorn, Lapsley, & Roisman, 2010; Moss & Lecompte, 2015; Natarajan, 2013; Savage, 2014) and internalizing (Buist, Deković, Meeus, & van Aken, 2004; Esbjørn, Bender, Reinholdt-Dunne, Munck, & Ollendick, 2012; Groh, Roisman, van IJzendoorn, Bakermans-Kranenburg, & Fearon, 2012) problems at different developmental stages. However, longitudinally the links are not so well established in middle childhood and early adolescence. What is more, a very important question is posed by different authors about mediators which could explain this connection between attachment security and psychopathology or psychosocial functioning difficulties (Brumariu & Kerns, 2010; Fearon et al., 2010; Moss & Lecompte, 2015). Mentalization is suggested to be a possible mediator in these relationships (Fonagy et al., 2004; Venta & Sharp, 2015).

At this point there have been just few studies testing this assumption. Results from the cross-sectional study conducted by Briumariu and colleagues (2012) reveals that emotional awareness partially mediates the link between lower attachment security and greater symptoms of anxiety in childhood. Another study shows that difficulties in identifying feelings also mediate relationship between attachment insecurity and impulsive aggression in adulthood (Fossati et al., 2009). The above-mentioned studies provide some evidence about affective mentalizing as a possible mediator, but it is still unclear whether same results could be generalized for adolescents and if they could be found longitudinally.

The role of mentalization as a mediator in adolescents' psychopathology is demonstrated in studies that do not analyze emotional and behavioral problems directly. It is found that inaccurate mentalization acts as a mediator between insecure attachment

and borderline personality traits (Sharp et al., 2016), between attachment disorganization and problems with peers (Venta & Sharp, 2015) in the clinical samples of adolescents. However, it is not known whether similar results would be obtained in population groups where psychopathology or interpersonal difficulties are less pronounced.

1.5. Mentalization as a mediator between abuse and emotional and behavioral difficulties

Adverse impact of childhood abuse on mental health has been widely studied. A solid body of empirical evidence show abuse to be related to internalizing and externalizing problems in childhood (Vachon, Krueger, Rogosch, & Cicchetti, 2015), adolescence (Cecil, Viding, Fearon, Glaser, & McCrory, 2017), to higher risk for depression, anxiety and externalizing problems in adulthood (MacMillan et al., 2001; Springer, Sheridan, Kuo, & Carnes, 2007). Systematic review and meta-analysis conducted by Norman and colleagues (2012), extensive study by Kessler and colleagues (2010) confirm a negative impact of abuse on mental health problems to be evident during different developmental periods. The long lasting effect of abuse on human functioning points to a possible mediating factors which have not been explained sufficiently yet (Braithwaite, O'Connor, Degli-Esposti, Luke, & Bowes, 2017; Kessler et al., 2010) and mentalization is proposed as one of possible mediators (Macintosh, 2013).

At this point there is already some empirical evidence for the given assumption. Mentalization in attachment relationship is confirmed as a partial mediator between childhood sexual abuse and depression symptoms and separately externalizing difficulties in a sample of 7 – 12 year olds where half of them has faced sexual abuse (Ensink et al., 2016). Other studies have confirmed reflective functioning to be a full mediator between physical and/or sexual abuse and aggressive behavior in adolescence (Taubner & Curth, 2013) or a partial mediator between abuse and potential for violence (Taubner et al., 2016). Moreover, in a clinical sample of adolescents low self-reported mentalization is demonstrated as a mediator between abuse and depression (Murri et al., 2016). So far, mentalization as a mediating factor between abuse and anxiety disorders has been little investigated empirically. Thus, from the data available to date, it can be assumed that childhood abuse is associated with greater externalizing and depression

symptoms, both directly and indirectly through mentalization. In the latter case, abuse has an adverse effect on mentalization, and in turn impaired mentalization plays a role in development and / or expression of externalizing problems and symptoms of depression. Such links still have to be tested in community samples in early adolescence.

1.6. The relevance and novelty of the study

Although it is agreed that social cognition should be a very significant process in adolescent functioning (Brizio et al., 2015), research in this period has been extremely limited for a long time. It remains unclear how along with rapid neurocognitive, emotional and social developmental changes in adolescence (Blakemore, 2008; Choudhury, Blakemore, & Charman, 2006), the capacity of mentalization unfolds, and the model of mentalization development is not yet formulated (Badoud, Speranza, & Debbané, 2016). Therefore, in our study we choose to analyze the beginning of this understudied developmental period of adolescence, i. e. early adolescence.

Fonagy and colleagues (2004) propose that changes of mentalization in adolescence are conditioned not only by cognitive development, but also by attachment experiences in earlier stages of development. Research show that early attachment security is important for the later development of mentalization (Fonagy, Redfern, & Charman, 1997; H Steele, Steele, & Croft, 2008), but as the attachment system and attachment representations undergo changes in middle childhood, it is not clear to what extent attachment at this stage stays important to mentalization development in subsequent developmental periods. Our study is new in this context as it analyses the longitudinal links between attachment in middle childhood and mentalization in early adolescence.

It is proposed that temporary or long-term mentalization impairments are characteristic to many forms of psychopathology (Fonagy et al., 2011; Luyten & Fonagy, 2015). Considering mentalization as multidimensional capacity, different impairments in mentalization can be related to different kinds of psychopathology. Therefore, Fonagy with colleagues (2011) emphasize the importance of detailing individual's mentalizing profile in terms of different dimensions of mentalization. Current studies analyzing links

between impaired mentalization and externalizing or internalizing problems in childhood and adolescence usually assess overall level of mentalization (Ostler et al., 2010; Sharp et al., 2007; Taubner & Curth, 2013) or measure only one aspect of the multidimensional mentalization construct (Mellick & Sharp, 2016). Some of the studies are carried out in clinical samples (Ha et al., 2013; Murri et al., 2016), others analyze constructs related to mentalization (Siener & Kerns, 2012), but not the mentalization itself. Therefore, profiles of mentalization in groups of adolescents with different symptoms of psychopathology have not been fully described yet.

In our study we chose methods that allow us to assess several aspects of mentalization in one sample: (a) the reflective function which is associated with the organization of the self and context of interpersonal relationships; (b) the accuracy of mental states recognition, which is measured using theory of mind concept and allows us to assess how accurately adolescents recognize mental states based on non-verbal information; (c) the accuracy in explaining another person's behavior in terms of his or her mental states (thoughts and emotions); and (d) the complexity of emotional awareness of self and other, where the level of emotional differentiation, specificity and variety of described emotions are important. The scope of the methods used in the study enables the analysis of characteristics of mentalization in early adolescence and contributes to detailing the profiles of mentalization problems in relation to emotional and behavioral difficulties.

Impaired mentalization is seen not only as a factor directly associated with psychopathology, since it is also assumed that mentalization might be a mediating factor in the development of psychopathology. It is suggested that development of mentalization is disturbed by childhood abuse and insecure attachment (Fonagy, Bateman, & Luyten, 2012), which adversely affect psychosocial functioning (Fearon et al., 2010; Groh, Roisman, van Ijzendoorn, Bakermans-Kranenburg, & Fearon, 2012; MacMillan et al., 2001; Norman et al., 2012). Mentalization might explain the relationship between abuse and psychopathology (Fonagy et al., 2004; Macintosh, 2013), insecure attachment and psychopathology (Fonagy et al., 2004; Sharp et al., 2016). So far, it is not clear what better describes the role of mentalization in maladaptive development in early adolescence – whether poor mentalizing is a factor associated with psychopathology or a risk mechanism through which adverse experiences affect the

expression of psychopathology. In this context, another novel aspect of our study is that it aims to evaluate two possible roles of mentalization in early adolescence: as a factor related to emotional and behavioral difficulties and as a mediator. While the existing research analyzes the direct relationship between mentalization and psychopathology (Ostler et al., 2010; Sharp et al., 2007), there is no clear answer as to how the links are manifested in early adolescence and when several aspects of mentalization are measured in one sample. Mediating role of mentalization between attachment insecurity and psychopathology is more widely described in the development of borderline personality disorder (Fonagy et al., 2004; Sharp et al., 2016), whereas our study analyzes the role of mentalization as a mediator between attachment and the emotional and behavioral difficulties in adolescence. The preliminary data on mentalization as a mediator between abuse and externalizing problems, and the symptoms of depression are derived from clinical samples (Murri et al., 2016) or samples with significant sexual abuse experience reported by specialists (Ensink et al., 2016) or samples which include not only adolescents, but also young adults (Taubner et al., 2016). In this context our study is novel because we measure perceived abuse and we test the described results in a larger, mostly community sample of young adolescents.

1.7. The aim and research questions of the study

The aim is to analyze the characteristics of mentalization in early adolescence and assess its links with attachment in middle childhood, relationships with abuse and emotional and behavioral difficulties.

Research questions:

1. What are the characteristics of mentalization as a multidimensional construct in early adolescence?
2. How is attachment security in middle childhood related to mentalization in early adolescence?
3. How is mentalization related to behavioral and emotional difficulties?
4. Is mentalization a mediator between attachment in middle childhood and emotional and behavioral difficulties in early adolescence?

5. Does mentalization mediate the link between the experience of abuse and emotional and behavioral difficulties?

2. METHOD

2.1. Participants

The whole sample consists of 705 young adolescents aged 11–14 years ($M = 12.58$, $SD = 0.89$), 48.7% boys and 51.3% girls. Most of them live in urban residential areas (81.7%). The biggest part of the sample ($N = 650$) was reached through different schools in Lithuania, 39 adolescents were reached through foster homes and 16 participants were reached through mental health specialists, different after-school programs for children at risk.

Eighty-two adolescents from this sample participated in a longitudinal part of the study. The children participated in the first phase of the study (T1) when they were in 1–3 grades in a primary school. At T1 they were 7–10 years old ($M = 8.48$, $SD = 0.98$). After four years, when they were 11–14 years old ($M = 12.42$, $SD = 0.97$) they participated in the second phase of the study (T2). Fifty-two percent were boys and 48% girls, 68.29% lived in urban residential areas. From those who were invited to participate in T2, 73% agreed to participate.

2.2. Measures

Reflective Function Questionnaire for Youths (RFQY) (Sharp et al., 2009). This self-report questionnaire measures general capacity for mentalization or reflective function. It consists of 46 questions. Adolescents are asked to rate how much they agree or disagree with a statement of reflective function on a 6-point Likert scale. Higher total score indicates better mentalization. The Cronbach's alpha of RFQY in this study was .69.

Reading the Mind from the Eyes Test (Child version) (RMET) (Baron-Cohen, Wheelwright, Spong, Scahill, & Lawson, 2001). The test evaluates the respondent's ability to recognize mental states based on a photograph of eye region of the face. Each

of the 28 pictures contains four words describing different mental states, and the adolescent is asked to choose which word fits best what the other person is thinking or feeling. A higher number of correct answers indicates better mentalization (other oriented, based on external features). KR-20 for RMET in this study was .70.

Situational Stories v. 4. (SitS, Gervinskaitė-Paulaitienė & Barkauskienė, 2014; Gervinskaitė-Paulaitienė & Barkauskienė, 2016b). This method assesses the cognitive and emotional aspects of mentalization that are revealed by asking adolescents to explain the behavior of another person based on their mental states. The SitS consists of 9 vignettes describing the interpersonal situation that causes unpleasant emotions for the main character, and behavior of the character is described with no mentioning of mental states. The respondent is asked to indicate what he or she thinks the character was thinking and what he or she was feeling when he or she behaved the way he or she did. The answers are coded according to the manual (Gervinskaitė-Paulaitienė & Barkauskienė, 2016b). Each answer receives 3 scores: SitS. Affective mentalization (how accurately emotions underlying the behavior are indicated), SitS. Cognitive mentalization (how accurately thoughts, motives are indicated). Total score is a sum of both scales. Higher scores indicate better mentalization. CFA for model with two scales showed good fit for the data: TLI = .930, CFI = .946, RMSEA = .038. Cronbach's alpha for SitS Cognitive mentalization scale was .79 and for SitS Affective mentalization scale .80.

Levels of Emotional Awareness Scale for Children (LEAS-C, Bajgar, Ciarrochi, Lane, & Deane, 2005). The LEAS-C comprises of 12 interpersonal scenarios. Respondents are asked to describe the feelings of self and of the other person for each scenario. LEAS-C evaluates the complexity of emotional awareness. Answers are coded according to the manual and scoring is aimed at determining the degree of differentiation or specificity in the emotions described, and the range of emotions reported (Bajgar et al., 2005). For each scenario, 3 scores are allocated: a score for self-awareness, other-awareness, and for total-awareness (which can be higher than self or other if different and complex emotions of self and other are described). Cronbach's alpha for Self scale was .72, Other scale .87, for Total scale .79.

Table 2.1. Summary of characteristics of mentalization measures

	Dimensions of mentalization			Other characteristics
	Self - other	Emotional - cognitive	Internal - external	
RFQY	S + O	E + C	I + (E)	General level of mentalization; mentalization in relationship context; self-report
RMET	O	E + C	E	No context, no reference to relationships; accuracy assessment
SitS	O	E – C	I + (E)	Mental states in relation to behavior; context and relationships not directly related to the respondent; accuracy assessment
LEAS-C	S – O	E + (C)	I	Level of emotional awareness and complexity; references to context and relationships related with the respondents

Note. + indicates joint assessment of both poles, - indicates that it is possible to assess both poles separately, () indicates that pole is assessed indirectly.

Childhood Experiences Questionnaire (CEQ, adapted by Gervinskaitė-Paulaitienė & Barkauskienė from Adverse Childhood Experiences Questionnaire (Dube et al., 2001) and The ACE Score Calculator, (Anda, 2007)). CEQ assesses experience of emotional abuse and neglect, physical abuse and neglect, and sexual abuse. It consists of 10 questions. Adolescents are asked to answer whether they have experienced different kinds of abuse. Answers for different types of abuse and total score can be calculated (ranging from 0 to 10).

Youth Self-Report 11-18 (YSR/11-18; Achenbach & Rescorla, 2001). The standardized Lithuanian version of the YSR/11-18 (Žukauskienė, Kajokienė, & Vaitkevičius, 2012) was used to measure emotional and behavioral difficulties. It consists of 112 items measuring a child's problems during last 6 months. The DSM-oriented scales were used in this study analysis.

Child Attachment Interview (CAI, Shmueli-Goetz, Target, Fonagy, & Datta, 2008). This is a semi-structured interview with 19 questions about attachment relationships. The CAI provides a possibility of assessing attachment classification for separate attachment figures. Attachment can be classified in four categories (secure,

avoidant, preoccupied, and disorganized) or scale of Coherence can be used for dimensional measure of security.

2.3. Procedure

The study consisted of two phases (T1 and T2). T1 was a part of research project “Psychological difficulties dynamics in childhood: personality traits, attachment and mentalization” (research grant by Lithuanian Research Council, agreement No MIP016/2012, principal investigator Assoc. Prof. Dr. R. Barkauskienė). This stage was conducted when children were 7–10 years old. During T1 all parents of 1–3 graders in a single administrative district of Lithuania were contacted with an invitation to participate in the study. Child Attachment interview (CAI) was conducted with 146 children whose parents had given an informed consent. The author of the dissertation was one of the researchers who administered the CAI.

After four years the second phase of the study was conducted (T2). At T2 participants were 11–14 years old. The study was approved by Ethics Committee for Psychological Research in Vilnius University. Children from T1 participated (n = 82) in the study and the sample was expanded with 623 other young adolescents who had not participated in the study at T1. Informed parental consent was obtained before the T1 and T2. At T2 participants filled questionnaires measuring mentalization, abuse, externalizing and internalizing problems. The study was carried out by a group of trained research assistants (the dissertation author coordinated the work of other research assistants and conducted part of the research herself).

2.4. Data analysis

Child attachment interview (CAI), Levels of emotional awareness scale for children (LEAS-C), Situational stories (SitS) were first coded by trained coders coding manuals (the author of the dissertation was one of the main coders and supervised the coding processes of LEAS-C and SitS).

The initial data processing and part of the statistical analysis was performed using the IBM SPSS 24. Mediation models were assessed using the IBM SPSS PROCESS 2.16

macro (developed by Andrew P. Hayes). Confirmatory Factor Analysis (CFA) was carried out with structural equation modeling program IBM SPSS AMOS 24.0.0, latent class analysis with the structural equation modeling program Mplus 7.4. In the analysis of results with SPSS program the missing values were excluded pairwise (*exclude cases pairwise*). In the analysis with AMOS and Mplus to deal with missing values the Full Information Maximum Likelihood (FIML) method was used.

The Pearson correlation coefficient was used to evaluate the strength of associations between variables (interpretation of strength based on Cohen (1988, 1992) guidelines where $\pm .10$ is considered small, $\pm .30$ moderate, and $\pm .50$ strong (cit. from Field, 2013)). Student t test or Mann-Whitney U were used to compare two groups, Kruskal-Wallis test was used to compare more than two groups. The best LCA model was chosen by analyzing model fit statistics and based on theoretical justification (Berlin, Williams, & Parra, 2014; Nylund, Asparouhov, & Muthén, 2007). In assessing the direct effect in mediation models, the significance of the effect was estimated based on the 95% confidence intervals of the effect estimate. The significance of the indirect effect was estimated by applying bootstrapping (5000 draws). The bootstrapped confidence intervals for the indirect effect were obtained and the indirect effects which 95% confidence intervals do not include 0 were considered significant (Field, 2013; Hayes, 2013).

3. MAIN RESULTS

3.1. Analysis of mentalization characteristics in early adolescence

The correlational analysis revealed that all measured aspects of mentalization were significantly correlated with each other (see Table 3.1). Self-reported RF had weak links with performance-based measures of mentalization (RMET, SitS and LEAS-C). A better ability to recognize mental states from eye region was moderately related to higher cognitive and affective mentalization and higher emotional awareness. Higher emotional awareness was moderately related to higher cognitive and affective mentalization as well.

Table 3.1. Correlations among mentalization indicators and age

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. RFQY	-								
2. RMET	.16***	-							
3. SitS. Cognitive	.18***	.33***	-						
4. SitS. Affective	.18***	.30***	.42***	-					
5. SitS. Total	.22***	.37***	.82***	.86***	-				
6. LEAS-C Self	.22***	.29***	.37***	.44***	.48***	-			
7. LEAS-C Other	.18***	.27***	.44***	.46***	.53***	.59***	-		
8. LEAS-C Total	.22***	.30***	.43***	.49***	.54***	.91***	.75***	-	
9. Age	.17***	.16***	.13**	.06	.11**	.05	.06	.05	-

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, * $p < .05$, ** $p < .01$, *** $p < .001$.

The person-oriented approach was used to reveal the expression of mentalization. Latent class analysis with six separate scores of mentalization measures (RFQY, RMET, SitS. Cognitive, SitS. Affective, LEAS-C Self and LEAS-C Other) was performed using the Mplus program. The analysis was repeated with 1–6 classes. For model with 6 classes the best Loglikelihood value was not replicated which shows that the model does not fit the data. The model fit indicators for models with 1 to 5 classes are presented in Table 3.2. When comparing models with 2 and 3 classes, we see that even though AIC, BIC and SSABIC values are smaller for 3 class model, but the difference is very small (particularly in the most important SSABIC) and LMR-LRT is insignificant which shows that 2-class solution is better. Comparing models with 4 and 5 classes, results show that 4-class model fits data better than 5-class model (LMR-LRT test for 5-class model is insignificant). Comparing 2 class and 4-class models we see that entropy value is bigger for 2-class model and this shows that 2-class model distinguishes classes better. Having considered all indications, we have selected model with two classes.

Table 3.2. Fit indices for latent class models of mentalization

	1 class	2 classes	3 classes	4 classes	5 classes
Loglikelihood	-11193.70	-10859.67	-10803.88	-10757.46	-10730.61
AIC	22411.415	21757.35	21659.75	21580.93	21541.22
BIC	22466.095	21843.93	21778.23	21731.30	21723.47
SSABIC	22427.91	21783.60	21695.67	21626.52	21596.48
Entropy	-	0.78	0.66	0.69	0.71
LMR-LRT (p)	-	653.82 (p < .001)	109.21 (p = .423)	90.85 (p = .024)	52.57 (p = .690)
Class size (%)	100%	C1 = 32.53% C2 = 67.47%	C1 = 23.30% C2 = 48.15% C3 = 28.55%	C1 = 15.63% C2 = 43.89% C3 = 11.22% C4 = 29.26%	C1 = 10.23% C2 = 13.35% C3 = 8.81% C4 = 20.88% C5 = 46.73%

Notes. AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; SSA-BIC = Sample-Size-Adjusted BIC; LMR-LRT = Lo-Mendell-Rubin adjusted LRT Test, N = 704.

When analyzing means of mentalization scores in both classes (Table 3.3) it is evident that classes differ in the mean level of all mentalizing scores. According to the mean scores, one class can be called as worse mentalization group ($n = 229$), other – as better mentalization group ($n = 475$). Univariate entropy values indicate that scale of other emotional awareness was the most important variable in differentiating classes and reflective function was the least important indicator in distinguishing latent classes.

Table 3.3. Means of mentalization scores of two latent classes and univariate entropy of class indicators

	Class with worse mentalization		Class with better mentalization		<i>Univariate entropy</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
RFQY	8.23	0.69	8.56	0.69	0.12
RMET	15.97	3.89	19.44	3.89	0.20
SitS. Cognitive	10.56	5.32	17.80	5.32	0.34
SitS. Affective	11.76	5.77	20.15	5.77	0.38
LEAS-C Self	21.51	5.47	29.67	5.47	0.34
LEAS-C Other	9.21	6.89	25.23	6.89	0.60

Note. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children.

As seen in Table 3.4, comparisons of mentalization between boys and girls revealed that girls scored higher in all the measures of mentalization.

Table 3.4. Descriptive statistics of mentalization indicators in whole sample and comparison of mentalization between boys and girls

	Whole sample			Boys	Girls	<i>t</i>	<i>df</i>
	Min	Max	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		
RFQY	5.30	10.09	8.45 (0.71)	8.38 (0.75)	8.52 (0.67)	-2.53*	623.00
RMET	4.00	28.00	18.41 (4.21)	17.21 (4.60)	19.47 (3.49)	-6.65***	511.84
SitS. Cognitive	0.00	27.00	15.47 (6.31)	14.13 (6.40)	16.73 (5.96)	-5.39***	655
SitS. Affective	0.00	27.00	17.45 (6.98)	16.18 (7.52)	18.62 (6.21)	-4.52***	614.01
SitS. Total	0.00	54.00	32.92 (11.19)	30.31 (11.48)	35.35 (10.35)	-5.91***	655
LEAS-C Self	3.00	44.00	27.07 (6.66)	25.19 (6.84)	28.82 (5.99)	-7.11***	609.76
LEAS-C Other	0.00	44.00	20.08 (10.17)	17.26 (10.76)	22.71 (8.83)	-6.96***	592.84
LEAS-C Total	3.00	51.00	29.87 (6.88)	27.53 (7.05)	32.04 (5.96)	-8.70***	601.12

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, * $p < .05$, *** $p < .001$.

Comparisons of adolescents who reported any kind of abuse (26.5 %, $n = 185$) and did not report any abuse ($n = 512$) revealed that adolescents who reported abuse had lower reflective function ($M = 8.30$, $SD = 0.78$) compared to adolescents who did not report abuse ($M = 8.51$, $SD = 0.68$, $t = 3.35$, $p = .001$). Other aspects of mentalization did not differ between these groups.

Table 3.5. Comparison of mentalization of groups reporting different experiences of abuse

	No abuse (1G)	Only physical abuse (2G)	Only emotional abuse (3G)	Different types of abuse (4G)	<i>Kruskal-Wallis H</i>	Significant differences between groups ^a
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		
RFQY	8.51 (0.68)	8.53 (0.70)	8.40 (0.70)	8.08 (0.86)	16.44**	1G > 4G**
RMET	18.62 (4.12)	17.29 (3.45)	18.68 (3.92)	17.02 (4.95)	8.09*	-
SitS. Cognitive	15.43 (6.32)	14.58 (5.90)	17.34 (5.82)	13.72 (6.57)	13.40**	1G < 3G*, 3G > 4G**
SitS. Affective	17.49 (6.93)	18.31 (6.27)	18.38 (7.13)	16.00 (7.18)	4.76	-
SitS. Total	32.93 (11.03)	32.88 (10.00)	35.72 (11.40)	29.72 (11.96)	10.82*	3G > 4G**
LEAS-C Self	26.91 (6.64)	27.75 (5.65)	29.42 (6.15)	25.00 (7.15)	17.50**	1G < 3G*, 3G > 4G***
LEAS-C Other	20.11 (10.18)	20.67 (10.12)	21.49 (9.47)	17.87 (11.00)	3.68	-
LEAS-C Total	29.60 (6.95)	30.75 (5.67)	32.19 (6.13)	28.42 (7.31)	13.74**	1G < 3G*, 3G > 4G**

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, ^a = Bonferroni correction for multiple tests, * $p < .05$, ** $p < .01$, *** $p < .001$.

To assess in greater detail how mentalization is related to the different types of abuse (physical, emotional, sexual) and to several different types of abuse experience, we distinguished adolescent groups according to the type of violence experienced by adolescents. The following groups were formed: no experience of abuse (Group 1, $n = 512$, 73.4%), reporting only the experience of physical abuse and / or neglect (group 2, $n = 27$, 3.9%), reporting only the emotional abuse and / or neglect (group 3, $n = 86$, 12.3%), reporting different experiences of abuse (group 4, $n = 73$, 10.5%). Four adolescents who reported only sexual abuse were assigned to the latter group. As seen in

Table 3.5 the level of RF was significantly higher in the adolescents who did not report abuse as compared to the ones who reported having experienced different types of abuse. Although the overall test indicated that the groups differed in the recognition of internal states, differences in inter-group comparisons were not significant. The accuracy of understanding the thoughts of another person and self emotional awareness, and overall awareness of emotions were greater in adolescents who reported emotional abuse compared with the ones who reported having experienced no abuse and those who experienced different types of abuse. We also found that there was no difference between the groups in the accuracy of the understanding of emotions in interpreting the behavior of another person and the level of other emotional awareness.

3.2. Analysis of relationship between attachment in middle childhood and mentalization in early adolescence

The present section provides the results of the longitudinal group of the study. Distribution of attachment classifications in this group ($N = 82$) was as follows: 60% of the children had secure attachment with maternal attachment figure and 40% of those polled had insecure attachment (out of these – 33% avoidant, 1% preoccupied, 6% disorganized). Attachment with father (paternal figure) was evaluated for 74 children and the distribution was as follows: 58% had secure attachment and 42% of the respondents had insecure attachment (out of these – 28% avoidant, 4% preoccupied and 6% disorganized).

Table 3.6. Correlations between attachment security in middle childhood and mentalization in early adolescence

	RFQY	RMET	SitS			LEAS-C		
			Cognitive	Affective	Total	Self	Other	Total
Coherence	.09	.20	.09	.18	.16	.24*	.24*	.28*

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, * $p < .05$, ** $p < .01$.

As can be seen in Table 3.6, higher attachment security (as measured with Coherence scale) in middle childhood was related to higher emotional awareness in early adolescence.

Children with secure attachment with mother had higher other emotional awareness and total emotional awareness. The same differences were found between secure and insecure attachment with father (Table 3.7). There were no other differences in mentalization between groups.

Table 3.7. Comparison of mentalization between groups with secure and insecure attachment

	Secure with mother <i>M (SD)</i>	Insecure with mother <i>M (SD)</i>	<i>Mann- Whitney U</i>	Secure with father <i>M (SD)</i>	Insecure with father <i>M (SD)</i>	<i>Mann- Whitney U</i>
RFQY	8.48 (0.74)	8.43 (0.60)	634.50	8.51 (0.79)	8.42 (0.55)	479.00
RMET	19.34 (3.97)	17.62 (4.33)	436.00	19.08 (4.09)	18.2 (4.62)	446.00
SitS. Cognitive	15.82 (6.17)	15.03 (4.91)	574.00	15.31 (6.20)	15.26 (5.12)	508.00
SitS. Affective	19.11 (5.73)	17.62 (7.75)	615.00	18.92 (5.87)	19.00 (7.26)	478.50
SitS. Total	34.93 (9.98)	32.66 (10.83)	572.00	34.23 (9.96)	34.26 (11.15)	518.00
LEAS-C Self	29.39 (6.18)	26.56 (7.90)	563.50	29.32 (6.35)	26.69 (7.87)	462.50
LEAS-C Other	23.43 (9.33)	18.59 (10.24)	517.50*	23.54 (9.65)	18.00 (10.66)	408.50*
LEAS-C Total	32.83 (6.46)	29.91 (6.90)	533.00*	32.85 (6.65)	29.72 (6.99)	413.50*

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, * $p < .05$.

3.3. Analysis of links between mentalization and emotional and behavioral difficulties

The correlational analysis revealed that reflective function and depressive problems, somatic problems, oppositional defiant problems and conduct problems are

inversely related (see Table 3.8). Conduct problems have negative associations with all aspects of mentalization. It is important to note that there are some weak but positive correlations between higher anxiety and higher accuracy in identification of emotions that underlie the behavior of another and higher level of emotional awareness.

Table 3.8. Correlations between mentalization and emotional and behavioral difficulties

	Depressive Problems	Anxiety Problems	Somatic Problems	Oppositional Defiant Problems	Conduct Problems
RFQY	-.22***	-.08†	-.13**	-.11**	-.20***
RMET	.00	.06	-.06	.04	-.15***
SitS. Cognitive	.01	.04	-.03	.05	-.13***
SitS. Affective	.06	.11**	-.01	.12**	-.11**
SitS. Total	.04	.09*	-.02	.10*	-.14**
LEAS-C Self	.02	.13**	-.01	.02	-.17**
LEAS-C Other	.01	.11**	.00	.07	-.17***
LEAS-C Total	.06	.17**	.02	.05	-.18***

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

In order to assess whether young adolescents with strongly expressed difficulties have poorer mentalization, intergroup comparisons were made. By the level of their problems, adolescents were assigned to risk and norm groups according to Lithuanian norms for YSR/11-18 (Žukauskienė et al., 2012). Adolescents with difficulties in borderline clinical and clinical range were merged into one group that we call a group of adolescents at risk for *particular* problems or problem group. Adolescents whose problems fall into the normative range of problems are considered as not at risk for having problems (or non-problem group) for the following analysis.

Adolescents with affective problems ($n = 76$, $M = 8.13$, $SD = 0.85$) had lower reflective function compared to the non-problem group ($n = 530$, $M = 8.50$, $SD = 0.67$, $t = 3.73$, $df = 89.14$, $p < .001$). The group with anxiety problems and the non-problem

group differed also only in the level of reflective function: the ones with anxiety tended to have a lower RF ($n = 45$, $M = 8.49$, $SD = 0.69$) compared to those who did not have anxiety problems ($n = 561$, $M = 8.07$, $SD = 0.19$, $t = 3.83$, $df = 604$, $p < .001$). Adolescents with somatic problems had poorer RF ($n_{\text{problem group}} = 58$, $n_{\text{non-problem group}} = 547$, $t = 3.40$, $df = 603$, $p = .001$) and lower other emotional awareness (LEAS-C Other Scale) than those without them ($n_{\text{problem group}} = 58$, $M = 20.59$, $SD = 9.99$, $n_{\text{non-problem group}} = 567$, $M = 16.84$, $SD = 10.93$, $t = 2.70$, $df = 623$, $p = .007$). There were no other significant differences between the groups in the levels of mentalization.

A comparison of adolescents with oppositional defiance problems and the non-problem group revealed that there were no statistically significant differences in mentalization between these groups. As can be seen from Table 3.9, the conduct problem group ($n = 572$) and non-problem group ($n = 54$) differ in most of the mentalization aspects.

Table 3.9. Comparison of mentalization in young adolescents with and without conduct problems

	Non-CP group	CP group	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
RFQY	8.49 (0.685)	8.06 (0.83)	3.64	56.46	.001
RMET	18.59 (4.00)	17.33 (5.31)	1.59	51.93	.117
SitS. Cognitive	15.80 (6.12)	13.74 (6.88)	2.32	635	.021
SitS. Affective	17.80 (6.81)	14.72 (7.84)	3.12	635	.002
SitS. Total	33.60 (10.79)	28.45 (12.58)	3.28	635	.001
LEAS-C Self	27.54 (6.43)	23.02 (7.31)	4.88	624	< .001
LEAS-C Other	20.72 (9.91)	15.19 (10.99)	3.88	624	< .001
LEAS-C Total	30.37 (6.60)	25.85 (7.78)	4.73	624	< .001

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, CP – conduct problems.

To distinguish adolescent groups exhibiting different compilation or level of difficulties, a latent class analysis using the Mplus program was performed. The analysis

included all five problem scales. The analysis was repeated with 1–7 classes. For models with 6 and 7 classes the best loglikelihood value was not replicated. The model fit indicators for models with 1 to 5 classes are presented in Table 3.10. The best LCA model is chosen by analyzing model fit statistics and based on theoretical justification (Berlin et al., 2014; Nylund et al., 2007).

Table 3.10. Fit indices for latent class models of emotional and behavioral difficulties

	1 class	2 classes	3 classes	4 classes	5 classes
Loglikelihood	-8274.95	-7819.48	-7709.40	-	-7558.48
AIC	16569.89	15670.97	15462.80	-	15184.96
BIC	16615.10	15743.30	15562.25	-	15338.66
SSABIC	16583.35	15692.50	15492.40	-	15230.71
Entropy	-	0.91	0.82	-	0.85
LMR-LRT (p)	-	888.22 (p <.001)	214.68 (p = .064)	-	126.64 (p = .019)
Class size (%)	-	C1 = 80.27% C2 = 19.74 %	C1 = 60.68% C2 = 30.04% C3 = 9.28%	x	C1 = 56.26% C2 = 12.52% C3 = 20.47% C4 = 6.78% C5 = 3.98%

Notes. AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; SSA-BIC = Sample-Size-Adjusted BIC; LMR-LRT = Lo–Mendell–Rubin adjusted LRT Test, x = Best loglikelihood was not replicated.

As we can see from the data in Table 3.10, Loglikelihood, AIC, BIC, SSABIC show model with 5 classes to be a good solution. The LMR-LRT indicates that models with 2 and 5 classes are appropriate. By comparing the values of entropy, we see that it is higher for the 2-class model, but it is also high enough for the model with 5 classes. The 2-class model distinguishes high and low problem classes. It is theoretically appropriate, but it does not necessarily reflect the diversity of difficulties and does not

distinguish between emotional and behavioral difficulties. We select the model with 5 classes as it better reflects the diversity of adolescents' difficulties.

Table 3.11. Means of emotional and behavioral problems in groups with various difficulties (distinguished by LCA)

	No difficulties	Low externalizing	Low internalizing	High internalizing	Mixed problems	<i>SD</i> ^a
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	
Depressive Problems	2.52	4.97	7.78	14.44	11.81	2.26
Anxiety Problems	1.65	2.65	4.49	6.47	4.31	1.73
Somatic Problems	0.96	1.61	2.88	5.68	4.99	1.66
Oppositional Defiant Problems	2.13	4.90	3.45	5.11	6.66	1.74
Conduct Problems	1.97	7.24	3.08	5.97	15.06	1.91

Note. a – SD calculated by Mplus is same for all groups.

On the basis of the means of problems in the classes (Table 3.11), the groups can be named as follows:

- C1 – no difficulties ($n = 382$, 56.26%);
- C2 – has minor oppositional disorder and conduct difficulties without emotional difficulties ($n = 85$, 12.52%), this group is called low externalizing;
- C3 – has minor affective, anxiety and somatic problems, with almost no oppositional defiance difficulties, with no conduct difficulties ($n = 139$, 20.47%); this group is called low internalizing;
- C4 – has highly expressed affective problems, anxiety and somatic problems, and has mildly expressed oppositional defiance and low conduct difficulties. This group already shows indications of mixed difficulties, but the internalizing difficulties are more pronounced, which is why we refer to this group as high internalizing ($n = 46$, 6.78%).

• C5 - has very severe conduct difficulties and high levels of oppositional defiance, affective, somatic problems and mild anxiety problems. Due to the diversity of the difficulties faced by this group of adolescents, we call this group having mixed problems ($n = 27, 3.98\%$).

The group comparisons were conducted to assess possible differences in mentalization among groups. As shown in Table 3.12, the reflective function of younger adolescents without difficulties was significantly superior to the ones with low externalizing problems, as well as those with high internalizing and mixed problems. There were no significant differences between groups in the accuracy of identification of mental states, cognitive and affective mentalization.

Table 3.12. Comparisons of mentalization in latent classes with different emotional and behavioral difficulties

	<i>Kruskal-Wallis H</i>	Significant differences between groups ^a
RFQY	30.84***	No diff > Low ext **, No diff > High int**, No difficulties > Mixed*
RMET	8.46	-
SitS. Cognitive	9.25	-
SitS. Affective	9.86*	-
SitS. Total	14.23**	Low int > Mixed*
LEAS-C Self	16.69**	Low int > Mixed**
LEAS-C Other	13.48**	No diff > Mixed*, Low int > Mixed **
LEAS-C Total	26.70***	No diff < Low int*, No diff > Mixed*, Low int > Low ext*, Low int > Mixed ***, High int > Mixed **

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, a - Bonferroni Post-hoc test with Bonferroni correction for multiple tests, * $p < .05$, ** $p < .01$, *** $p < .001$.

The groups differed mainly in the level of total emotional awareness. Adolescents with mixed problems had lower emotional awareness compared to the group with no difficulties, with low internalizing, and with high internalizing groups. The low internalizing group performed better than the group with no difficulties, low

externalizing and the group with mixed problems. Moreover, the low internalizing group was more accurate in explanations of others' behavior in relation to mental states (SitS Total) than the group with mixed problems.

3.4. Mentalization, attachment and emotional and behavioral difficulties: mediational analysis

In order to evaluate whether mentalization mediates the relationship between attachment security in middle childhood and the difficulties in early adolescence, we conducted mediation analyses. We tested 30 mediation models, in which the independent variable was Coherence, the mediator was different indicators of mentalization (RFQY, RMET, SitS. Cognitive, SitS. Affective, LEAS-C Self and LEAS-C Other), and the dependent variable was different emotional and behavioral difficulties (Depressive problems, Anxiety problems, Somatic problems, Oppositional Defiant problems, Conduct problems). Bootstrapped 95 % CI for the all indirect effects included 0 and that means that mentalization does not mediate relationship between attachment security and different difficulties.

3.5. Mentalization, abuse and emotional and behavioral difficulties: mediational analysis

To evaluate whether mentalization mediates relationship between abuse and different difficulties, mediation models with mentalization indicators (RFQY, RMET, SitS. Cognitive, SitS. Affective, LEAS-C Self and LEAS-C Other) as parallel mediators were evaluated. We controlled for gender in all models. As can be seen from 3.13 table, reflective function partially mediated relationship between abuse and (1) depressive problems, (2) anxiety problems, (3) oppositional defiant problems and (4) conduct problems. The higher level of experienced abuse predicted lower reflective function and in turn lower RF predicted higher level of difficulties. Direct effect was significant in the following models – higher level of abuse predicted more difficulties, and this showed that RF was a partial mediator. In none of the models' other components of mentalization were confirmed as mediators.

Table 3.13. Mediation models of links between abuse and different difficulties with mentalization indicators tested as parallel mediators

Predictor	Mediator	Outcome	<i>a path</i>	<i>b path</i>	Direct effect			Specific indirect effect		
					<i>b</i>	95 % <i>CI</i>		<i>b</i>	95 % <i>BCa CI</i>	
Abuse	RFQY	Depr	-0.13***	-1.16***				0.15	0.06	0.29
	RMET		-0.37*	0.05				-0.02	-0.08	0.01
	SitS. Cognitive		-0.16	0.02	1.46	1.19	1.74	0.00	-0.04	0.01
	SitS. Affective		-0.04	0.05				0.00	-0.04	0.03
	LEAS-C Self		-0.11	0.01				0.00	-0.03	0.01
	LEAS-C Other		-0.41	0.01				0.00	-0.04	0.01
	RFQY	Anx	-0.13***	-0.36*				0.05	0.01	0.11
	RMET		-0.37*	0.04				-0.01	-0.05	0.00
	SitS. Cognitive		-0.16	0.00	0.53	0.36	0.69	0.00	-0.02	0.01
	SitS. Affective		-0.04	0.02				0.00	-0.02	0.01
	LEAS-C Self		-0.11	0.01				0.00	-0.02	0.01
	LEAS-C Other		-0.41	0.02				-0.01	-0.04	0.01
	RFQY	Som	-0.13***	-0.22				0.03	-0.01	0.09
	RMET		-0.37*	-0.01				0.00	-0.02	0.03
	SitS. Cognitive		-0.17	-0.01	0.44	0.28	0.59	0.00	-0.01	0.02
	SitS. Affective		-0.05	0.02				0.00	-0.02	0.01
	LEAS-C Self		-0.11	0.00				0.00	-0.01	0.01
	LEAS-C Other		-0.40	0.01				0.00	-0.03	0.01

Table 3.13. (continued)

Predictor	Mediator	Outcome	<i>a path</i>	<i>b path</i>	Direct effect			Specific indirect effect		
					<i>b</i>	95 % <i>CI</i>		<i>b</i>	95 % <i>BCa CI</i>	
Abuse	RFQY	OD	-0.13***	-0.39**				0.05	0.01	0.12
	RMET		-0.37*	0.04				-0.01	-0.05	0.00
	SitS. Cognitive		-0.16	0.01	0.35	0.20	0.51	0.00	-0.02	0.01
	SitS. Affective		-0.04	0.05**				0.00	-0.03	0.03
	LEAS-C Self		-0.11	-0.03				0.00	-0.01	0.03
	LEAS-C Other		-0.41	0.01				-0.01	-0.04	0.00
	RFQY		-0.13***	-0.65**				0.08	0.02	0.19
	RMET		-0.37**	-0.05				0.01	-0.02	0.05
	SitS. Cognitive		-0.16	-0.01	0.77	0.52	1.02	0.00	-0.01	0.02
	SitS. Affective		-0.04	-0.03				0.00	-0.02	0.04
	LEAS-C Self		-0.11	-0.02				0.00	-0.01	0.03
	LEAS-C Other		-0.41	-0.01				0.00	-0.01	0.05

Notes. RFQY = Reflective Function Questionnaire for Youths, RMET = Reading the Mind from the Eyes Test (Child version), SitS = Situational Stories, LEAS-C = Levels of Emotional Awareness Scale for Children, Depr = Depressive problems, Anx = Anxiety problems, Som = Somatic problems, OD = Oppositional defiant problems, CP = Conduct Problems; *a path* = effect of predictor on mediator, *b path* = effect of mediator on outcome, coefficients for effects are unstandardized; *CI* = confidence intervals, *BCa CI* = bootstrapped *CI*, **p* < .05, ***p* < .01, *N* = 464.

4. DISCUSSION

The purpose of this study was to analyze the mentalization in early adolescence, its relation to attachment in middle childhood as well as to childhood abuse. We also aimed to analyze the relationship between mentalization and emotional and behavioral problems, to assess the possible role of mentalization as a mediator in the relationship between abuse and emotional and behavioral difficulties and attachment and later

emotional and behavioral problems. Longitudinal and cross-sectional parts of the study were combined to achieve the aim and answer the research questions.

4.1. Mentalization in early adolescence

First, results of this study showed that all the aspects of mentalization were correlated with each other, but the level of association varied. Reflective function, which represents the overall level of general capacity for mentalization in different contexts, was weakly related to narrower components of mentalization (ability to recognize mental states from eyes, cognitive and affective mentalization in explanation of behavior in others and emotional awareness of self and other) in early adolescence. When comparing these results with findings from a study conducted by Ha and colleagues (2013) in a clinical sample of adolescents, we see that both confirmed RF to be related with other-oriented mentalization in social context, but only in our study the external, other-oriented mentalization (mental states recognition), was significantly related with RF. Such varying results might indicate more integrated mentalization capacity in community sample compared to clinical sample.

Moreover, our results revealed significant links among recognition of mental states, cognitive and affective mentalization, self and other emotional awareness. The results are coherent with other research data showing that mental states recognition is weakly (Vrouva & Fonagy, 2009) or moderately (Rutherford et al., 2012) related with explanations of behavior reasons in other people in late adolescence. Our study demonstrated that more accurate explanations of emotions and thoughts underlying behavior of other people were related to higher emotional awareness in self and other. Similar results are found by Vrouva and Fonagy (2009) in later adolescence. Links between self and other oriented RF in childhood (Ensink & Mayes, 2010), cognitive and affective ToM in adolescence (Bialecka-Pikul, Kołodziejczyk, & Bosacki, 2017) are confirmed by the results of our study showing that self and other emotional awareness, and separately cognitive and affective mentalization are significantly related. The results of our study broaden the results of the above-mentioned studies, revealing that we can identify similar associations between mentalization components already in early adolescence.

Using person-centered approach two mentalization classes were identified that were characterized by different levels (worse and better) of all mentalization indicators. Therefore, when aiming to understand the expression of mentalization in young adolescents without linking it to other factors, the difference in the level of all the components of mentalization is seen but not the unevenness of components or dimensions, i. e. mentalization profiles differ in level, but not in the form. All this shows that in early adolescence we can consider a certain level of mentalization integration which was postulated by Fonagy and colleagues (2004) theoretically and in some studies partially confirmed empirically (Bialecka-Pikul et al., 2017; Rutherford et al., 2012; Vrouva & Fonagy, 2009). Moreover, the fact that the strength of the correlations vary from weak to moderate indicates that it is important to analyze the profile of the mentalization.

To elaborate understanding on how mentalization manifests in early adolescence, we compared mentalization in girls and boys. The results were unequivocal: girls had higher level of all mentalization aspects. This is consistent with a study by Borelli and colleagues (2014), where girls had better RFs, as well as Bosacki and Astington (2001) data suggesting that younger adolescents girls perform better on ToM tasks than boys. Bialecka-Pikul and her co-authors (2017) found that more significant gender differences in mentalization (affective and cognitive) are evident later in adolescence, whereas our study shows that these differences can be detected already in early adolescence.

When describing the possible relationship between mentalization and abuse, it is theoretically hypothesized that the quality of mentalization may be worse for the people who had experienced abuse (Fonagy et al., 2012). On the other hand, potential complex interactions between adverse experiences and mentalization are discussed, where understanding and overcoming adversity could also be considered to entail the enhancement of mentalizing (Greenberg et al., as cited in Fonagy & Bateman, 2016). Our results contribute to the knowledge about possible complex interactions between mentalization and the experiences of abuse. Reflective function but not other aspects of mentalization was significantly worse in adolescents who reported any experience of abuse compared to the ones who did not report any abuse. It encourages consideration of the significance of abuse for mentalization (RF) as a function of self-organization. We could raise the hypothesis that the reflective function is easier than other aspects of

mentalization disturbed by the experience of abuse. Such results add to the data of Ensink and colleagues (2016), confirming that RF is worse in the young adolescents who have experienced other than sexual abuse.

The analysis of the groups with different experiences of abuse (no abuse, only emotional, only physical, various abuse) show expected and slightly unexpected results: adolescents who have experienced various types of abuse (more than one) stand out as having worse RF and worse cognitive mentalization. Such data extends results from adult studies confirming a cumulative adverse impact of abuse on the quality of mentalization (Brüne, Walden, Edel, & Dimaggio, 2016; Chiesa & Fonagy, 2014). Moreover, the results show that young adolescents reporting only emotional abuse are characterized by better cognitive mentalization, higher self and total emotional awareness even when compared to adolescents with various experience of abuse and also with the ones reporting no abuse. These results can be interpreted in two ways. First, emotional abuse can encourage reflection on the motives and thoughts underlying another person's behavior and attentiveness to emotional experience in order to overcome painful emotions caused by experiencing emotional abuse or to avoid emotional abuse itself. On the other hand, better understanding of the intentions and thoughts of other people, as well as the more complex emotional awareness may allow adolescents to capture and identify emotional abuse quicker. Adult studies also reveal complex interactions between experiences and mentality of different forms of violence (Chiesa & Fonagy, 2014; Weinstein et al., 2016), which confirms possible mixed relationships between the experience of different forms of violence and the expression of mentalization.

4.2. Attachment in middle childhood and mentalization in early adolescence

The correlational analysis and group comparisons revealed that attachment security in middle childhood was related to higher emotional awareness in early adolescence. It means that children who have been securely attached to their parents in preceding developmental stage are better in describing more complex, different, and more specific emotions when imagining the self and another person and their emotional experiences. The given results are partly consistent with cross-sectional research data

indicating the relationship between attachment security and better mentalization in childhood and early adolescence (Brumariu et al., 2012; Humfress et al., 2002). It also partly confirms the theoretical assumptions about the significance of attachment security for mentalization at different stages of development (Dykas & Cassidy, 2011; Luyten & Fonagy, 2015), revealing that secure attachment in middle childhood is associated with better awareness of emotions (in particular that of another person) in early adolescence.

When speculating why there are no significant relationships of attachment with cognitive and emotional mentalization and recognition of mental states, one can draw attention to the fact that the latter methods require a correct answer, while the LEAS-C, evaluating the emotion awareness, does not assess accuracy of emotion understanding. It can be presumed that attachment safety affects the awareness of emotions, but not necessarily the accuracy of mental state understanding. Moreover, the existing cross-sectional studies reveal that disorganized (Colle & Del Giudice, 2011; Venta & Sharp, 2015) or preoccupied (Hünefeldt et al., 2013) attachment is related to more significant mentalization impairments and the analysis of the all classifications of insecure attachment as one group (as in our study) may lead to a loss of important information.

Perhaps slightly surprising is the fact that the theoretically closely related attachment security and the reflective function are not associated in our study. One of the main explanations could be the measurement difference. The attachment security was evaluated by an expert based on an interview during which the attachment system had been already activated at some level, and the attachment security assessment is based not only on the information provided by a child deliberately also on his behavior, non-verbal language, narrative analysis, which allow making assumptions about the implicit aspects of attachment representations. The assessment of the reflective function in our study was based on the self-reported information provided by a young adolescent without making a deliberate impact on the activation of attachment system. We can speculate that stronger links could emerge if attachment system was activated, which would reveal the theoretically postulated impact of attachment insecurity (Luyten & Fonagy, 2015) on adolescent mentalization and we could capture the impaired mentalization of insecurely attached adolescents. What is more, the importance of attachment to friends might start to play a considerable role in interpersonal differences of mentalization (Humfress et al., 2002).

4.3. Associations between mentalization and emotional and behavioral difficulties

Starting with affective problems, it is important to note that they are not related to other components of mentalization except for RF. Part of the results coincide with the studies demonstrating links between depression and overall level of mentalization (Ensink et al., 2016; Murri et al., 2016). Other results contradict quite coherent research data, showing that components of emotion understanding or awareness (Eastabrook, Flynn, & Hollenstein, 2014; Flynn & Rudolph, 2014; Kranzler et al., 2016; Rubenstein et al., 2015; Siener & Kerns, 2012), which can be considered as indicating emotional mentalization, are related to depression symptoms. One of the possible explanations could be different assessment characteristics (the reviewed studies rely on self-report, and our study rely on performance-based). It is possible that the adolescents experiencing affective problems underestimate their skills related to emotional mentalization. Moreover, in the context of contradictory findings from other studies about links between depression symptoms and mental states recognition (Lee et al., 2005; Mellick & Sharp, 2016; Schenkel, Chamberlain, & Towne, 2014) our results are in line with the ones (Wolkenstein et al., 2011) which do not find any significant links.

Our study results show that the adolescents with a high level of somatic problems have worse RF and lower other emotional awareness, but dimensionally more somatic symptoms are linked only with poorer RF. The results partly coincide with research showing lower emotional understanding to be related to somatic problems (Eastabrook et al., 2014; Kranzler et al., 2016; Lahaye, Luminet, Van Broeck, Bodart, & Mikolajczak, 2010; Rieffe, Oosterveld, Miers, Meerum Terwogt, & Ly, 2008). Interestingly, somatic difficulties are often associated with lower emotional awareness in self, but our data suggest that they are related to lower other emotional awareness. We could carefully interpret the results assuming that somatic problems distract attention from the effort to understand the emotional experience of another person, but does not affect the awareness of his or her emotions.

Third, our findings show that the reflective function is worse when the anxiety difficulties are significantly expressed but dimensionally anxiety is not related to RF. In evaluating how other aspects of mentalization are associated with anxiety problems we found some positive links: higher anxiety relates to a greater emotional awareness and a

more accurate understanding of emotions when interpreting the behavior of another person. Although the results in part contradict some of the studies showing that low emotional awareness and anxiety are related (Eastabrook et al., 2014; Kranzler et al., 2016; Rieffe et al., 2008; Sendzik, Schäfer, Samson, Naumann, & Tuschen-Caffier, 2017), they still can be compared with the data from the adult sample with emotional awareness evaluated using the same measure as in our study (Novick-Kline et al., 2005) or with the results demonstrating the links in childhood (Göbel et al., 2016). It may be that anxiety determines the increase of attention to emotional experience, and the opposite is also possible, where a better ability to understand and express emotions lead to higher experience of anxiety in early adolescence. As Fonagy and colleagues (2004) point out, in adolescence together with increased capacity for mentalization, the world becomes more and more complex for adolescents and this can also increase stress. The discussed inconsistent findings raise questions whether the relationship between anxiety and emotional mentalization is linear, and it remains unclear whether this positive relationship still points to the fluctuation of mentalization within the norm or rather gives indication about a non-adaptive or too strong engagement in mentalizing.

Fourth, a small number of studies separately analyze the relationship between oppositional defiance difficulties to mentalization or related phenomena. As a result our study extends the available research knowledge, showing a weak link between oppositional defiance and poorer RF and on the other hand, with more accurate explanations of behavior in other people based on their emotions. Oppositional defiance within the limits of the norm may reflect disobedience, resistance to authority, stubbornness within adaptive range, possibly related to self-assertion in adolescence (Gaivenytė, 2016), which can consistently be related to a better understanding of another's emotions. Of course, another interpretation is possible – the understanding of the emotions of another person can help evaluate one's own behavior as more disobedient and oppositional from the perspective of other people.

Another important group of the results is the finding implying the relationship between conduct problems and mentalization. In both the dimensional analysis and intergroup comparisons, behavioral difficulties relate to almost all the worse mentalization estimates (except no differences in RMET). The results are in line with

many other authors' research linking behavioral problems with worse overall level of mentalization in childhood (Ha et al., 2011; Sharp et al. 2007), poorer mentalization based on non-verbal information (Gervinskaitė-Paulaitienė & Barkauskienė, 2014; Sharp, 2008), and worse emotional understanding (Bohnert et al., 2003; McLaughlin et al., 2011; Nader-Grosbois et al., 2013). Our study expands the research of reflective function in two aspects. First, from a developmental point of view, the connection between poorer RF and conduct problems is also found in early adolescence, not only in childhood or late adolescence (Ensink et al., 2016; Taubner et al., 2013, 2016). Secondly, research data also shows that not only interview-based RF (Ensink et al., 2016; Taubner et al., 2013, 2016), but also self-reported RF relates to conduct difficulties.

Since the same young adolescents may have different constellations of difficulties, we aimed to identify groups based on the expression of their difficulties. Several findings from this analysis are quite important to be mentioned briefly. The first, group with mixed emotional-behavioral difficulties was characterized by worst mentalization compared to other groups with or without difficulties. The low internalizing group seems to have better emotional awareness, and the high internalizing group can be described as having low RF. The results echo the study of M. Gambin, T. Gambin and Sharp (2015) carried out in a clinical sample, where a group with average internalizing problems had quite good mentalization, high internalizing group was worse in some aspects of mentalization and a group with comorbid difficulties was also characterized by worse levels of all mentalization components.

4.4. Mentalization as a risk mechanism

In our study mediation analysis has shown that none of mentalization components is a mediator (risk mechanism) in the relationship of attachment security (coherence) and emotional and behavioral difficulties. That means that results from the cross-sectional studies are not confirmed in this longitudinal study. It may be that mentalization is a mediating factor in the relationship between attachment security and anxiety (Brumariu & Kerns, 2010) or aggressiveness (Fossati et al., 2009), when all the phenomena are evaluated cross-sectionally but not longitudinally. It may also be that the impaired

mentalization acts as a mediator only in a case of disorganized attachment (Venta & Sharp, 2015), which we were unable to analyze in the study, and maladaptive functioning. Another explanation as to why there is no confirmation of an indirect effect through mentalization may be related to the significance of psychopathology, because contrary to our research, in groups with clinical levels of psychopathology poor mentalization acts as a mediator of insecure attachment and psychopathology (Sharp et al., 2016). What we discussed when commenting the links between attachment and mentalization in Section 4.2 (for example, no arousal of attachment system, other influences on the development of mentalization, etc.) may also explain the lack of mediating effect. To sum up, our research does not confirm the theoretical proposal about mentalization as a mediator between attachment security and psychopathology (Fonagy et al., 2004; Sharp et al., 2016) from middle childhood to early adolescence.

The mediational analysis showed that in the models where mentalization components were tested as parallel mediators with gender as covariate, the reflective function acted as a partial mediator between the experience of abuse and (1) affective difficulties, (2) anxiety, (3) oppositional defiance, and (4) conduct problems. The higher level of reported abuse predicted the lower level of RF, and in turn the lower RF predicted the higher level of difficulties. No other components of mentalization were confirmed as mediating factors.

When comparing the present study with other studies, it is firstly evident that mentalization in our study, as well as in other studies (Ensink et al., 2016; Murri et al., 2016; Taubner & Curth, 2013; Taubner et al., 2016) is confirmed as a partial mediator. Our research results expand the empirical data in several respects. In particular, it confirms that the RF mediates the relationship between abuse and symptoms of anxiety. Other studies separately confirm the links between abuse and components of mentalization (Luke & Banerjee, 2013), aspects of mentalization and anxiety (Mathews et al., 2016; Ostler et al., 2010; Sendzik et al., 2017), but have failed to evaluate empirically RF as a mediator between abuse and anxiety difficulties in early adolescence.

Second, our results show that self-reported RF is a mediator between abuse and affective difficulties in a community sample where adolescents report abusing themselves. It extends knowledge gained from studies in the clinical sample where abuse

was assessed by professionals (Murri et al., 2016) or studies including sexual abuse only (Ensink et al., 2016). Third, earlier studies showed that reflective function based on interviews (which is related to some level of attachment arousal) (Ensink et al., 2016) (Taubner et al., 2016) is a mediating factor between abuse and problems of externalizing spectrum. The results of our study also broaden this empirical data, indicating that the self-reported RF is significant mediator in the expression of external difficulties.

Our results indicate that there is also a significant direct effect between the abuse and the emotional and behavioral difficulties. It goes in line with the significant amount of empirical data obtained from the analysis of the relationships at different stages of development, with different research samples, based on different measurement methods (Holmes, Yoon, Voith, Kobulsky, & Steigerwald, 2015; Kessler et al., 2010; Norman et al., 2012; Vachon et al., 2015). Abuse can definitely affect the development of psychopathology through other factors, such as cognitive distortions (Braithwaite, O'Connor, Degli-Esposti, Luke, & Bowes, 2017), low reward sensitivity (Jaffee, 2017) or dissociation symptoms (Ensink, Bégin, Normandin, Godbout, & Fonagy, 2017). It is also likely that its immediate effect, which can indicate a disadvantaged environment, a more complex relationship between parents and children, a greater likelihood of experience of painful emotions, disruption of emotional regulation strategies, can affect the symptoms of psychopathology.

To conclude, our research data confirms to some extent that mentalization is a mediator (risk mechanism) between adverse experiences and psychopathology symptoms (Macintosh, 2013), indicating that in early adolescence general capacity of mentalization in different relationship contexts partially explains the relationship between abuse and emotional and behavioral difficulties.

Reviewing all the results of the study, an important point emerges in relation to the unequal meaning of the reflective function. We found that in early adolescence RF is least related to other components of mentalization and is least important in distinguishing groups of better and worse mentalization. On the other hand, it reveals itself as a factor significantly related to emotional and behavioral difficulties, and as a mediating factor which partially explains the relationship between abuse and emotional

and behavioral difficulties. In this context, reflective function emerges as a factor significantly related to mental health in early adolescence. This emphasizes the need to assess the overall level of mentalization, to obtain an indicator of general capacity for mentalization in different relationships and contexts, because the narrower and more specific mentalization skills may not reveal the links with adaptation difficulties or can be unimpaired or less relevant when psychopathology is less significant. This is also supported by significant differences of total emotional awareness between the groups with different constelations of emotional and behavioral difficulties distinguished using the person-centered approach. The total emotional awareness includes not only the complexity of one's own and other emotional experience, but also the understanding that self and another person can experience completely different emotions in the same situation, which gives indication of wider aspect of mentalization. At the same time, in the case of conduct or high mixed emotional-behavioral difficulties, a lower level of separate components of mentalization is revealed which indicates that in these cases the disruption of mentalization is wider and more significant. It also indicates the importance of evaluating narrow mentalization skills in the case of externalizing problems. The evaluation of the narrow aspects of mentalization cannot be underestimated, as in this case, the evaluation of overall level of mentalization would not be sufficient to reveal a full picture of the disturbance of mentalization.

4.5. Limitations of the study and guidelines for further research

One of the limitations of this study is related to the nature of mentalization as quality of mentalizing is closely related to the situational context (Allen et al., 2008). We regarded mentalization more as a trait than a process. We neither evaluated contextual influences nor controlled for attachment system activation, stress levels that can have influence of mentalizing. Thus, the results of the study can be viewed as an indication of the potential for mentalizing, but not as direct indication of the level at which the mentalization of young adolescents will unfold in everyday life. In future studies mentalization could be assessed using interview based measures for reflective functioning (CRFS on CAI - Ensink et al., 2015; RFS on AAI - Fonagy, Target, Steele, & Steele, 1998) which allows assessment of mentalizing with the activation of

attachment system to some extent. Higher levels of situational and interpersonal context could be included in the content of assessment methods (Humfress et al., 2002) or different emotions could be induced before the assessments (Bohnert et al., 2003).

In the recruitment process we did not include students who had intellectual disorders, and we did not measure the level of intelligence which could influence mentalizing (Humfress et al., 2002; Vrouva & Fonagy, 2009). The controlling for the intelligence level could improve the reliability of results. In this study adolescents reported their own emotional and behavioral problems which could have influenced the results (with underreporting of externalizing problems). Future studies could benefit from integration of information about adolescent difficulties from parents, teachers and adolescents themselves. Moreover, the experience of abuse relied on self-report as well and it means that the reported levels and types of abuse depend on subjectively perceived experience. It is possible that part of adolescents did not report violence even though they had experienced it. Further studies could include more detailed questions about abuse or try to involve more objective evaluations of abuse from other sources.

CONCLUSIONS

1. The analysis of mentalization as a multidimensional capacity in early adolescence has shown that the components of mentalization – reflective function, the accuracy of recognition of mental states in other, the accuracy of the explanation of another person's behavior in terms of mental states and the level self and other emotional awareness – are significantly interconnected. Reflective function has the weakest link with other aspects of mentalization.
2. Based on the latent class analysis, in this sample of young adolescents, the groups of adolescents with better and worse mentalization skills were distinguished. The most substantial and slightest differences observed between the groups in the emotional awareness of other and in the level of the reflective function respectively.
3. The study revealed that girls in early adolescence have better mentalization than boys: girls have stronger reflective function, greater recognition of the mental

states of the person and more accurate explanation of behavior in relation to mental states, and a higher level of emotional awareness.

4. It was found that young adolescents who report various childhood abuse experience compared to adolescents who do not report any abuse or who report only emotional abuse have weaker reflective function, lower level of emotional awareness, and are less accurate in explaining behavior in other people in terms of their mental states. Young adolescents who report only emotional abuse are better in explaining behavior of other people based on their thoughts and have higher emotional awareness.
5. The study revealed that attachment security in middle childhood is related to higher level of self and other emotional awareness, however, it is not related to reflective function, the accuracy of mental states recognition in another person and the accuracy of explanations of mental states underlying behavior of others.
6. The results of the study suggest that mentalization is a significant factor in behavioral and emotional difficulties in early adolescence, but this relationship is not unambiguous. Analysis of the study data in several aspects showed the following:
 - a) Young adolescents at risk for conduct problems are distinguished by worse mentalization compared to the ones who are not at risk: their reflective function is weaker, they are less accurate in explaining behavior reasons of other people based on their mental states and they have a lower level of self and other emotional awareness. Mentalization of adolescents with a risk for oppositional defiance difficulties do not differ from the ones who do not have this risk.
 - b) Young adolescents at risk for affective – depressive and anxiety – difficulties have a weaker reflective function than adolescents having no such risk. The groups do not differ in other aspects of mentalization. However, when analyzing the anxiety difficulties dimensionally, increased anxiety was associated with a more accurate explanation of another's behavior in terms of emotions and a higher self and other emotional awareness level.
 - c) The person-oriented analysis revealed that young adolescents with mixed behavioral-emotional difficulties, are characterized by the worst

mentalization compared to adolescents with no difficulties, with only behavioral or only emotional difficulties.

7. The results of the analysis on mentalization as a mediator showed that mentalization is not a mediator between attachment in middle childhood and emotional and behavioral difficulties in early adolescence. However, the reflective function partially mediates the relationship between experience of abuse and separately affective, anxiety, oppositional defiance, and conduct difficulties, i. e. a higher level of reported abuse predicts a worse reflective function, and in turn the poorer reflective function predicts greater difficulties.

IŠSAMI DISERTACIJOS REZIUMĖ

Mentalizacija apibūdinama kaip gebėjimas suprasti save ir kitus subjektyvių būsenų ir psichinių procesų požiūriu (Fonagy & Bateman, 2007). Tai sąmoningas, kontroliuojamas ir nesąmoningas, automatinis savo ir kitų žmonių elgesio supratimas siejant jį su intencionaliomis psichikos būsenomis, tokiomis kaip norai, poreikiai, emocijos, įsitikinimai, tikslai, mintys (Allen et al., 2008).

Nors jau yra sukaupta žinių apie mentalizacijos arba jai giminingos psichikos teorijos raidą ir raišką ankstyvoje vaikystėje (Bretherton & Beeghly, 1982; Meins et al., 1998; Ruffman, 2014), domimasi suaugusių mentalizacijos aprėptimi (Barreto, Fearon, Osorio, Meins, & Martins, 2016; Katznelson, 2014; Petersen, Brakoulias, & Langdon, 2016), tačiau stebėtina tai, kad šiame tyrimų kontekste mentalizacija paauglystėje, o ypač ankstyvoje, ilgą laiką buvo itin menkai tyrinėta. Nors sutariama, kad socialinis pažinimas turėtų būti labai reikšmingas procesas paauglio tapatumo raidai ir vis platesniam paauglio įsitraukimui į socialinį pasaulį (Brizio et al., 2015), fiksuojančių jo raidą tyrimų ilgą laiką buvo itin mažai ir šiuo metu vis dar nėra pakankamai. Lieka neaišku, kaip vykstant spartiems neuro-kognityviniams, emociniams raidos pokyčiams paauglystėje (Blakemore, 2008; Choudhury, Blakemore, & Charman, 2006) atsiskleidžia mentalizacijos gebėjimas, dar nėra suformuluota bendro mentalizacijos raidos modelio.

Kartu ir teorinės Fonagy su kolegomis (2004) iškeltos prielaidos apie reikšmingą mentalizacijos pokytį paauglystėje, kuris manoma, kad randasi ne tik dėl kognityvinės raidos, bet ir priklauso nuo prieraišumo santykių patirčių ankstesniuose raidos etapuose, ilgą laiką empiriškai nebuvo tyrinėjamos. Yra žinoma apie ankstyvų santykių reikšmę mentalizacijos raidai (H Steele, Steele, Croft, & Fonagy, 1999; H Steele, Steele, & Croft, 2008), tačiau nėra aiškus prieraišumo vidurinėje vaikystėje, raidos tarpsnyje prieš pat paauglystę, vaidmuo mentalizacijos raiškai ankstyvoje paauglystėje. Kadangi vidurinėje vaikystėje pradeda vykti prieraišumo sistemos pokyčiai (Dwyer, 2005), jie gali daryti įtaką tam, kiek prieraišumo saugumo įtaka lieka reikšminga mentalizacijos raidai.

Keliamos prielaidos, kad laikini ar ilgalaikiai mentalizacijos sutrikdymai (Luyten & Fonagy, 2015), netikslumai ar iškraipos būdingi beveik visoms psichopatologijos formoms (Fonagy et al., 2011). Sutrikdytos mentalizacijos vaidmuo nuosekliau tyrinėtas ir aprašytas ribinės asmenybės sutrikimo, ryškios psichopatologijos atvejais (Bo &

Kongerslev, 2017; Fonagy & Bateman, 2007; Sharp & Vanwoerden, 2015). Esami tyrimai, nurodantys netikslios mentalizacijos ir eksternalių (Sharp et al., 2007; Taubner et al., 2010) ar internalių problemų (Ensink et al., 2016; Ostler et al., 2010) sąsajas paauglystėje, dažnai apima tik vieną daugiadimensio mentalizacijos konstrukto dalį, yra atlikti specifinėse tyrimo imtyse arba analizuoja mentalizacijai giminingus reiškinius, tačiau ne pačią mentalizaciją. Dėl to mentalizacijos profilis skirtingų sunkumų atvejais paauglystėje dar nėra detalai aprašytas.

Mentalizacija ne tik tiesiogiai siejama su psichopatologija, yra keliamos prielaidos, kad sutrikdytos mentalizacijos ir adaptacijos sunkumų ryšiui svarbi ir prieraišumo santykių patirtis bei smurto patyrimas. Manoma, kad mentalizacijos raidą trikdo patirtas smurtas vaikystėje ir nesaugus prieraišumas (Fonagy et al., 2012), kurie, kaip žinoma, nepalankiai veikia ir psichosocialinį funkcionavimą (Fearon et al., 2010; Groh, Roisman, van Ijzendoorn, et al., 2012; MacMillan et al., 2001; Norman et al., 2012). Siūloma mentalizaciją vertinti kaip mediatorių, kuris galėtų paaiškinti smurto ir psichopatologijos (Fonagy et al., 2004; Macintosh, 2013), nesaugaus prieraišumo ir psichopatologijos (Fonagy et al., 2004; Sharp et al., 2016) ryšį. Kol kas neaišku, kas geriau nusako mentalizacijos vaidmenį neadaptyvios raidos atvejais ankstyvoje paauglystėje: ar prasta mentalizacija veikia kaip rizikos veiksnys, ar tai rizikos mechanizmas, per kurį nepalankios patirtys veikia psichopatologijos raišką.

Atsakymų paiešką į aptartus klausimus iš dalies sunkina mentalizacijos ir giminingų konstrukto įvairovė, vartojimo tradicijos ir aprėpties skirtumai. Viena vertus terminai *mentalizacija*, *reflektyvi funkcija*, *psichikos teorija*, *socialinis pažinimas* glaudžiai siejasi ir iš dalies persidengia nusakant psichikos būsenų supratimą. Tačiau kita vertus, jie atspindi ir reikšmingus gebėjimo suprasti psichiką sampratų skirtumus, o tai turi įtakos renkantis vertinimo metodus, konstruojant tyrimus ir interpretuojant jų rezultatus. Dėl to siekiant aprašyti mentalizacijos raidos modelį, mentalizacijos vaidmenį adaptacijos sunkumams paauglystėje svarbūs tampa tyrimai, atsižvelgiantys į šiuos giminingų konstrukto ir terminijos skirtumus, o kartu ir siekiantys sugretinti tai, kas bendro slepiasi už skirtingų sampratų ir vartojamų terminų.

Tyrimo mokslinis naujumas. Šiame tyrime siekiama atsižvelgti į jau minėtus probleminius klausimus mentalizacijos tyrimų ir teorijos kontekste. Visų pirma, tyrimui pasirinktas mažai tyrinėtas ir aprašytas raidos tarpsnis – ankstyva paauglystė. Nors šį

trūkumą atliepančių tyrimų jau randasi (Bosco et al., 2014; Scopesi et al., 2015; Taubner & Curth, 2013), bet duomenys dar paskiri, nėra bendro socialinio pažinimo raidos modelio paauglystėje, trūksta skirtingus požiūrius jungiančių tyrimų rezultatų (Borelli et al., 2014; Brizio et al., 2015; Taubner et al., 2010).

Su tuo susijęs ir antras šio tyrimo naujumo aspektas. Šiuo tyrimu siekiama reaguoti į poreikį analizuoti mentalizaciją kaip daugiadimensį reiškinių (Fonagy et al., 2011). Esami tyrimai dažnai atskirai vertina tik vieną iš mentalizacijos aspektų. Vieni vaikų ir paauglių tyrimai mentalizaciją vertina kaip savasties funkciją (čia ji dažniausiai įvardinama kaip reflektivi funkcija) (Ensink et al., 2016; Taubner et al., 2013). Kitos studijos mentalizaciją atskleidžia tik per atskirus mentalizacijos dėmenis, nurodančius atskiras mentalizacijos gebėjimo dalis, tokius kaip vidinių būsenų atpažinimas (Mellick & Sharp, 2016), mentalizacijos tendencingumas (Ha et al., 2011), emocijų supratimas (Siener & Kerns, 2012). Mūsų tyrime pasirinkti metodai mentalizaciją leidžia nagrinėti keliais aspektais: (a) kaip reflektivią funkciją, siejamą su savasties organizacija ir atspindinčią mentalizaciją tarpasmeninių santykių kontekste, (b) kaip vidinių būsenų atpažinimo tikslumą, kuris yra vertinamas remiantis psichikos teorijos samprata ir leidžia įvertinti, kaip tiksliai paaugliai remiasi neverbaline informacija sprendami apie psichikos būsenas, (c) kaip kito žmogaus elgesio aiškinimo tikslumą atsižvelgiant į jo psichikos būsenas ir (d) kaip savo ir kito žmogaus emocijų įsisąmoninimą, kur reikšmingi yra emocijų diferenciacijos ir specifiškumo lygis, įsisąmoninamų emocijų įvairovė, bet ne jų atitikimas situacijai. Tyrime naudojamų metodų apimtis sudaro galimybes analizuoti mentalizacijos raišką ankstyvoje paauglystėje, atskleisti mentalizacijos profilį emocijų ir elgesio sunkumų atveju.

Trečia, kartu tyrime didelis dėmesys skirtas emociniam mentalizacijos dėmeniui, fiksuojant jos tikslumą ir kompleksiskumą, kurio tyrinėjimas paauglystės pradžioje itin svarbus dėl kelių toliau minimų priežasčių. Paaugliai pasižymi dideliu jautrumu emocinei, socialinei informacijai (Dahl & Gunnar, 2009), yra duomenų apie galimus su emocijomis ir kognityviniais procesais susijusių smegenų sričių raidos ar aktyvacijos netolygumus (Blakemore, 2008; Crone & Dahl, 2012). Pakankamai gera emocinė mentalizacija galėtų būti reikšminga tiek susiduriant su socialiniais paauglystės pokyčiais, sėkmingai naviguojant besiplečiančių socialinių sąveikų lauke, o nepakankama ar netiksli mentalizacija gali vaidinti svarbų vaidmenį psichopatologijos

raiškoje. Tačiau kol kas tyrimai dažniau skiria dėmesį tik vienam iš emocinės mentalizacijos aspektų arba rezultatai interpretuojami siauriau, neintegruojant jų į mentalizacijos teoriją. Dėl šių priežasčių šiame tyrime naudojami atliktimi pagrįsti emocinės mentalizacijos vertinimo metodai, leidžiantys vertinti, ar emocinės mentalizacijos tikslumas ir kompleksiskumas vienodai svarbūs ankstyvoje paauglystėje.

Ketvirta, tyrime tikriname prierašumo ir mentalizacijos ryšį ilgalaikėje perspektyvoje. Daugiau tyrimų analizuoja ankstyvo prierašumo saugumo reikšmę mentalizacijos raidai (Fonagy, Redfern, & Charman, 1997; H Steele, Steele, & Croft, 2008), tačiau kol kas mažai tyrinėtas prierašumo saugumo vidurinėje vaikystėje vaidmuo.

Penkta, tyrime siekiama atsakyti į klausimą, koks yra specifinis mentalizacijos vaidmuo elgesio ir emociniams sunkumams, kuriuos patiria jaunesnieji paaugliai. Remiantis raidos psichopatologijos paradigmoje priimta rizikos samprata (Cicchetti, 2006), šiame tyrime mentalizacija kaip su paauglio funkcionavimu susijęs veiksnys vertinamas dviem aspektais: kaip susijęs su psichopatologija veiksnys ir kaip mediatorius. Nors esami tyrimai analizuoja tiesiogines mentalizacijos ir psichopatologijos sąsajas (Ostler et al., 2010; Sharp et al., 2007), nėra aiškaus atsakymo, kaip jos atsiskleidžia ankstyvoje paauglystėje ir kai kartu vertinami keli mentalizacijos dėmenys. Mentalizacijos, kaip mediatoriaus vaidmuo tarp prierašumo nesaugumo ir psichopatologijos plačiau aprašomas svarstant apie ribinės asmenybės sutrikimo raidą (Fonagy et al., 2004; Sharp et al., 2016), o šiame tyrime analizuojamas mentalizacijos kaip mediatoriaus vaidmuo tarp prierašumo ir eksternalių bei internalių paauglių sunkumų. Apie mentalizaciją kaip mediatorių tarp patirto smurto ir eksternalių sunkumų, depresijos simptomų duomenų pateikia negausūs pradiniai tyrimai (Ensink et al., 2016; Murri et al., 2016; Taubner et al., 2016) ir šiame kontekste mūsų tyrimas yra naujas tuo, kad šiuos rezultatus tikriname didesnėje, ne tik klinikinėje, imtyje ir būtent ankstyvoje paauglystėje.

Taigi, šio tyrimo tikslas – analizuoti mentalizacijos raišką ankstyvoje paauglystėje ir įvertinti jos sąsajas su prierašumu vidurinėje vaikystėje, smurto patyrimu ir emociniais bei elgesio sunkumais.

Tyrime keliami šiuos tyrimo klausimus:

1. Kokia yra mentalizacijos, kaip daugiadimensio konstrukto, raiška ankstyvoje paauglystėje?
2. Kaip prierašumo saugumas vidurinėje vaikystėje yra susijęs su mentalizacija ankstyvoje paauglystėje?
3. Kaip mentalizacija yra susijusi su elgesio ir emociniais sunkumais?
4. Ar mentalizacija yra mediatorius tarp prierašumo vidurinėje vaikystėje ir emocinių bei elgesio sunkumų ankstyvoje paauglystėje?
5. Ar mentalizacija medijuoja ryšį tarp smurto patyrimo ir emocinių bei elgesio sunkumų?

Tyrimo rezultatai apibendrinami šiomis išvadomis:

1. Mentalizacijos kaip daugiadimensio gebėjimo raiškos ankstyvojoje paauglystėje analizė parodė, kad vertinti mentalizacijos komponentai – reflektivi funkcija, kito žmogaus vidinių būsenų atpažinimo tikslumas, kito žmogaus elgesio aiškinimo remiantis psichikos būsenomis tikslumas bei savo ir kito emocijų įsisąmoninimo lygis – yra reikšmingai susiję tarpusavyje. Reflektivi funkcija silpniausiai susijusi su kitais mentalizacijos komponentais.
2. Analizuotoje jaunesniųjų paauglių imtyje, remiantis latentinių klasių analize, išskirtos geresnius ir prastesnius mentalizacijos gebėjimus turinčių paauglių grupės, kurios tarpusavyje labiausiai skiriasi kito žmogaus emocijų įsisąmoninimo lygiu, o mažiausiai – reflektivia funkcija.
3. Tyrimas atskleidė, kad ankstyvoje paauglystėje merginos pasižymi geresne mentalizacija lyginant su vaikiniais: merginos išsiskiria stipresne reflektivia funkcija, didesniu kito žmogaus vidinių būsenų atpažinimo bei kito žmogaus elgesio aiškinimo remiantis psichikos būsenomis tikslumu ir aukštesniu emocijų įsisąmoninimo lygiu.
4. Nustatyta, kad jaunesnieji paaugliai, kurie nurodo patyrę įvairaus pobūdžio smurtą vaikystėje, lyginant juos su smurto nepatyrusiais ar patyrusiais tik emocinį smurtą paaugliais, pasižymi silpnesne reflektivia funkcija, žemesniu emocijų įsisąmoninimo lygiu ir prasčiau paaiškina kito žmogaus mintis ir

ketinimus, slypinčius už elgesio. Jaunesnieji paaugliai, kurie nurodo patyrę tik emocinį smurtą, išsiskiria tikslesniu kito žmogaus elgesio paaiškinimu remiantis jo mintimis ir geresniu emocijų įsisąmoninimu.

5. Tyrimas atskleidė, kad prieraišumo saugumas viduriniojoje vaikystėje yra susijęs su savo ir kito emocijų įsisąmoninimo lygiu ankstyvoje paauglystėje, tačiau nėra susijęs su reflektvyvia funkcija, kito žmogaus vidinių būsenų atpažinimo tikslumu, kito žmogaus elgesio aiškinimo remiantis psichikos būsenomis tikslumu.
6. Tyrimo rezultatai leidžia teigti, kad mentalizacija yra reikšmingas elgesio ir emocijų sunkumų ankstyvoje paauglystėje veiksnys, tačiau ši sąsaja nėra vienareikšmė. Tyrimo duomenų analizė keletu pjūvių parodė, kad:
 - a) Elgesio sunkumų riziką turintys jaunesnieji paaugliai išsiskiria prastesniais mentalizacijos įverčiais lyginant su šios rizikos neturinčiais: jų reflektvyvioji funkcija yra silpnesnė, jie pasižymi mažesniu kito žmogaus elgesio aiškinimo remiantis psichikos būsenomis tikslumu bei žemesniu savo ir kito emocijų įsisąmoninimo lygiu. Opozicinio neklusnumo riziką turinčių paauglių mentalizacija nesiskiria nuo šios rizikos neturinčių.
 - b) Emocijų sunkumų – nerimo ir afektinių – riziką turintys jaunesnieji paaugliai pasižymi silpnesne reflektvyvia funkcija lyginant su paaugliais, kurie neturi šios rizikos. Kitais mentalizacijos aspektais šios grupės nesiskiria. Tačiau nerimo sunkumus analizuojant dimensiškai, nustatyta, kad didesnis nerimastingumas yra susijęs ir su tikslesniu kito žmogaus elgesio aiškinimu remiantis jo emocijomis bei aukštesniu savo ir kito emocijų įsisąmoninimo lygiu.
 - c) Į asmenį orientuota analizė parodė, kad jaunesnieji paaugliai, kurie patenka į mišrių elgesio ir emocijų sunkumų turinčiųjų grupę, pasižymi žemiausiais mentalizacijos įverčiais lyginant su paaugliais, neturinčiais sunkumų, turinčiais tik elgesio arba tik emocijų sunkumus.
7. Mentalizacijos kaip mediatoriaus analizės rezultatai parodė, kad mentalizacija nėra prieraišumo vidurinėje vaikystėje ir emocijų bei elgesio sunkumų ryšio ankstyvoje paauglystėje mediatorius, tačiau reflektvyvioji funkcija dalinai

medijuoja smurto patyrimo ir atskirai afektinių, nerimo, opozicinio neklusnumo ir elgesio sunkumų ryšį, t. y. didesnis smurto patyrimas prognozuoja prastesnę reflekyvią funkciją, o ji prognozuoja didesnius sunkumus.

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**AUTHOR'S PUBLICATIONS ON THE DISSERTATION TOPIC /
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Lina Gervinskaitė-Paulaitienė 2008 m. įgijo psichologijos bakalauro laipsnį, 2011 m. klinikinės psichologijos magistro laipsnį, o 2013 – 2017 m. studijavo psichologijos doktorantūroje Vilniaus universitete. Nuo 2011 metų dirba praktinį psichologo darbą, nuo 2012 metų dirba mokslinių tyrimų projektuose, dėsto studentams. Yra Vilniaus universiteto Raidos psichopatologijos tyrimų grupės narė. Studijuodama doktorantūroje dvejus metus buvo viena iš Jaunųjų mokslininkų psichologų konferencijos organizatorių. Studijų metu stažavosi 2015 m. Anna Freud centre (Jungtinė Karalystė) ir 2016 m. Raidos psichopatologijos laboratorijoje, Hiustono universitete (Jungtinės Amerikos valstijos).