

**Interventions to improve mentalization and reflective functioning:  
a scoping review****Intervenções promotoras da capacidade de mentalização e função reflexiva:  
uma revisão integrativa****Intervenciones promotoras de la capacidad de mentalización y función reflexiva:  
una revisión integrativa**Márcia Pinheiro Schaefer<sup>1</sup>, ORCID 0000-0002-4060-5261Débora Becker<sup>2</sup>, ORCID 0000-0002-5556-2567Tagma Marina Schneider Donelli<sup>3</sup>, ORCID 0000-0003-3083-0083<sup>1</sup> *Universidade do Vale do Rio dos Sinos, Brazil*<sup>2</sup> *Universidade do Vale do Rio dos Sinos, Brazil*<sup>3</sup> *Universidade do Vale do Rio dos Sinos, Brazil***Abstract**

This scoping review explores research conducted between 2008 to 2019, that aims to understand the conceptual use of mentalization (M) and reflective functioning (RF) and explore possibilities for interventions that promote these skills. The review utilized the descriptors “reflective functioning OR mentalizing OR mentalization AND intervention”. Reviewed papers were written in English, Portuguese or Spanish, and covered several research areas. The analysis considered several categories, including aims, study design, participants, type of intervention, intervention assessments and outcomes. Thirty-four papers were considered, most of them using a quantitative approach and addressed to adults and parents/caregivers-infants. The present review highlights the need to develop specific assessments procedures to evaluate RF and M, as well as studies that consider the Brazilian context. The study also emphasizes the need for theoretical systematization of M and RF concepts, considering they are frequently used as synonyms.

**Keywords:** mentalization; intervention; reflective functioning

**Resumo**

Esta revisão integrativa da literatura objetivou sistematizar as possibilidades de intervenções promotoras da Capacidade de Mentalização (CM) e Função Reflexiva (FR), publicadas entre 2008 a 2019. Utilizou-se os descritores “reflective functioning OR mentalizing OR mentalization AND intervention” e incluiu-se artigos empíricos, disponibilizados em Inglês, Português ou Espanhol, provenientes de diferentes áreas. Analisou-se os dados através das categorias: objetivos; delineamentos; participantes; tipo de intervenção utilizada; instrumentos de avaliação da intervenção empregados; resultados. Encontrou-se 34 artigos que predominantemente verificaram a eficácia das intervenções, possuíam delineamento quantitativo, voltados para adultos e, ainda, intervenções com potencial para fortalecer os vínculos pais/cuidadores-criança. Concluiu-se sobre a necessidade de se desenvolver instrumentos específicos para avaliar FR e CM, estudos que abordem a realidade brasileira e, ainda, a sistematização desses conceitos, que na maioria dos artigos, se apresentaram como sinônimos.

**Palavras-chave:** mentalização; intervenção; função reflexiva



### Resumen

La presente revisión integrativa exploró investigaciones realizadas entre 2008 y 2019 para sistematizar información acerca del uso conceptual de capacidad de mentalización (CM) y función reflexiva (FR), así como las posibilidades de intervenciones para su promoción. Los descriptores fueron “reflective functioning OR mentalizing OR mentalization AND intervention” en la búsqueda artículos empíricos en inglés, portugués o español, de distintas áreas del conocimiento. El análisis de los datos consideró las categorías: objetivos, diseños, participantes, tipo de intervención utilizada, instrumentos de evaluación de la intervención y resultados. Treinta y cuatro artículos fueron elegidos, en su mayoría cuantitativos, destinados a adultos y padres-bebés. La revisión destaca la necesidad del desarrollo de instrumentos de evaluación específicos para evaluar FR y CM, así como la necesidad de investigaciones que exploren la realidad de países como Brasil. Otro aspecto es la sistematización de los conceptos, ya que, en su mayoría, fueron referidos como sinónimos.

**Palabras clave:** mentalización; intervención; función reflexiva

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Studies focused on parent-infant interactions and their repercussions on the formation of the infant psyche suggest that early interactions are crucial for the infant's psychological development and have a strong influence on infants' emotional health, on the formation of later social relationships and on problem-solving ability (Akhtar, 2007). Empirical evidence supports a link between the affective experiences during the first years of life and the incidence of biopsychosocial disorders, such as affective and anxiety disorders, chronic stress, and psychosocial difficulties (Lecannelier, 2006).

The infant, equipped with an incipient psychic apparatus, forms their psyche through unconscious communication established with their mother, using the maternal psychism as an auxiliary ego to navigate the real world (Cramer & Palacio-Espasa, 1993). In this way, the inheritance of maternal experiences of real and fantasized relationships with parental figures may interfere in the mother-infant interaction, facilitating or hindering the creation of a healthy bond (Feliciano & Souza, 2011). Recent investigations, based on studies primarily conducted in the 1990s (Fonagy & Target, 1997), have recognized the crucial role of mentalization (M) and reflective functioning (RF) in attachment relationships between parents and their children (Tomlin et al., 2009), specially related to infant's emotion regulation process and in the development of a secure attachment (Slade, 2005), which reverberate throughout the life.

The mentalization theory, developed by Fonagy and colleagues in the 1990s (Holmes, 2006) is based on the theory of mind, attachment theory, developmental psychopathology, cognitive psychology as well as neuroscience. It encompasses the concepts of mentalization and reflective functioning. Mentalization is defined as an imaginative capacity and a transactional social process (Fonagy & Target, 1997), understood as the ability to understand oneself and others in terms of underlying processes and mental states, such as feelings, desires and beliefs (Fonagy & Allison, 2012). Reflective functioning, on the other hand, is a manifestation of mentalization, and refers to an individual's ability to mentalize their own mental states, as well as those of others (Slade, 2005). In the context of parent/caregiver-infant relationships, the adult's ability to reflect infant's internal states through consistent responses to infant's internal state and

emotions rather than parental projections, is called parental reflective functioning (PRF) (Ramires & Godinho, 2011). The concept of Parental Reflective Functioning (PRF) was introduced by Slade (2005). Higher PRF predicts greater parental ability to deal with infant's emotional lability, without being dominated by their own emotions (Kelly et al., 2005).

The maternal condition to keep in mind the representation of the infant as someone with feelings, desires, and intentions will allow the mother to mirror and re-present infant's affective state, enabling the infant to discover their own internal experience (Slade, 2005). This process provides the creation of a positive bond and a physical and psychological experience of security for the infant, playing a vital role in the transgenerational transmission of attachment (Ordway et al., 2015).

This unique and significant bond between infant and the attachment figure generates a sense of security in the infant, arising from maternal availability and sensitivity. This sense of security will be essential for the strengthening of the dyadic relationship and for the development of a secure base during infant's explorations (Bowlby, 1989; Dalbem & Dalbosco, 2005). In a secure attachment relationship, parents respond to child's emotional states in a welcoming and meaningful way through their FR, which allows the child to understand and differentiate their mental states and emotions, developing a perception of themselves and their own mentalization (Ensink et al., 2015; Fonagy & Target, 2006; Zevalkink, 2008).

The acquisition of mentalization integrates an intersubjective process between parents/caregiver-infant which enable the achievement of infant's emotion self-regulation, being important for the development of their internal security, self-esteem and autonomy (Fonagy, 1999; Ramires & Schneider, 2010). In this sense, based on the understanding that M and RF result from the association between childhood experiences and that they may be temporarily impaired in situations of great emotional impact, impacting on the mother-baby relationship, the latter's emotional development (Mesa & Gómez, 2010) and the quality of social interactions throughout life, it becomes essential to investigate interventions capable of improving and promoting these skills. Therefore, this study aimed to discuss the interventions focused on the improvement and promotion of M and RF, published between 2008 and 2019. Also, considering the number of studies using the terms M and RF as synonyms (Dalbem & Dalbosco, 2005), a conceptual systematization from the existing literature is also important.

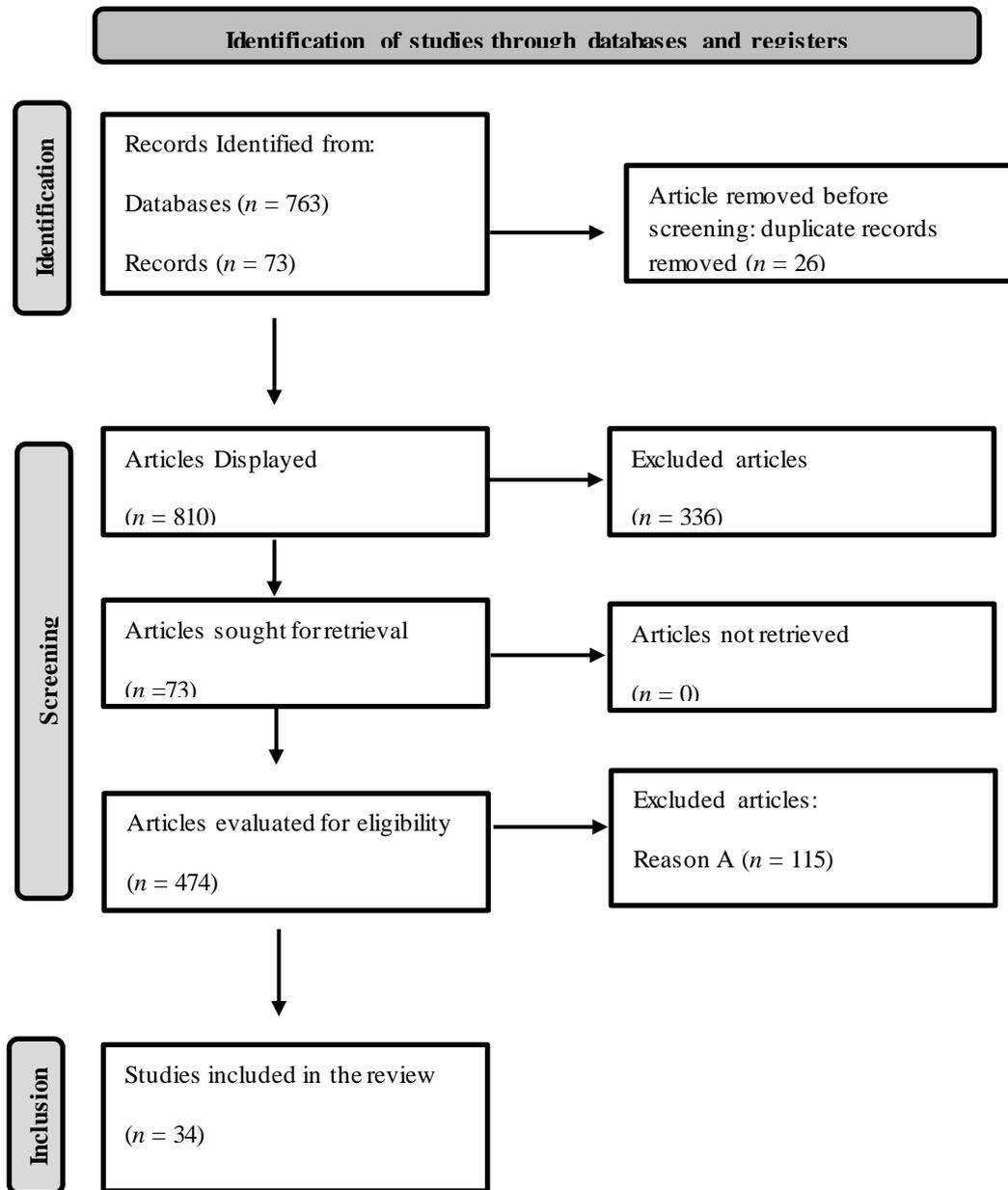
## Method

The review presented herein was motivated by the following question: What are the interventions carried out in the recent years focused on the improvement or promotion of mentalization and/or reflective functioning? Seven data bases from psychology, medicine and nursing were searched (Academic Search Complete, CINAHL, Medline Complete, Scopus, PsycINFO, LILACS and SciELO) during the month of May 2020, using the combined descriptors: "reflective functioning OR mentalizing OR mentalization AND intervention".

The following inclusion criteria were adopted: (a) be an empirical article, thesis, or dissertation; (b) have been published between May 2008 and December 2019; (c) the material is available in its entirety; and (d) material available in English, Portuguese or Spanish. As exclusion criteria it were established: (a) published in book format, book chapter, reviews, theoretical articles, experience reports, case studies and systematic or literature reviews; (b) publications not related to mentalization-based interventions. Moreover, the following filters were applied: a) year of publication, b) scientific paper,

and c) peer-reviewed paper. The selection was made according to Figure 1, considering the inclusion and exclusion criteria.

**Figure 1**  
*Diagram of publications selection process*



The majority of excluded publications were not related to interventions, focused on brain functioning, biology of insects, such as corneal structures and the understanding of optical diffraction. To reduce possible biases and ensure the quality of the findings, two independent judges carried out the procedures. The guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (Moher et al., 2009; Prisma <[www.prisma-statement.org/](http://www.prisma-statement.org/)>) were applied. Aiming to carry out a global analysis of the results, the publications which met the inclusion criteria were quantitatively analyzed. A qualitative analysis was also applied to explore the content.

## Results and Discussion

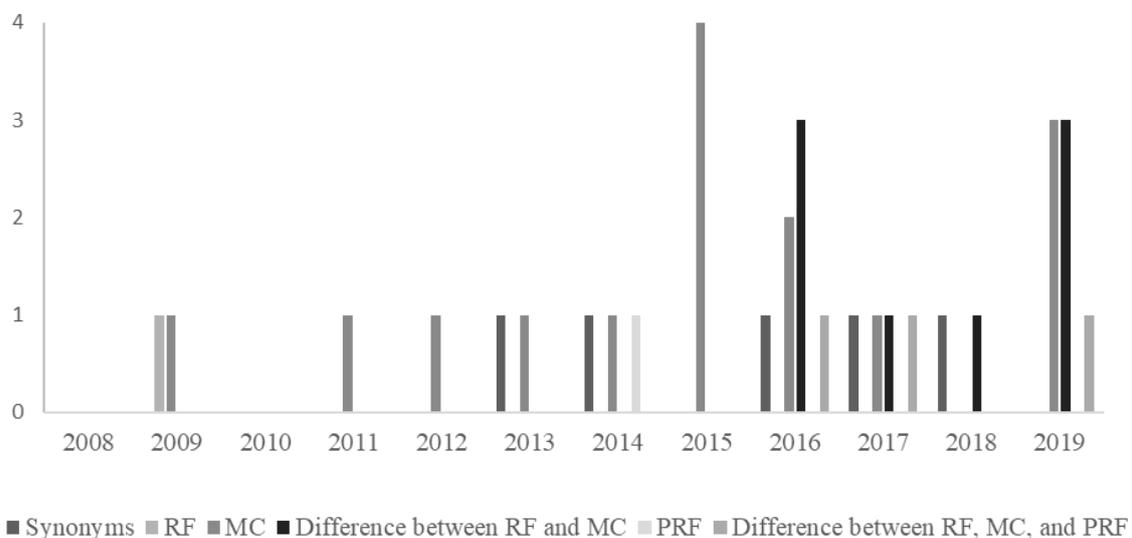
No publications were found based on the searched descriptors between 2008 and 2010. The first publications were retrieved in 2009, with two publications (Fonagy et al., 2009; Vik & Hafting, 2009), same rates as in 2018 (De Meulemeester et al., 2018; Ordway et al., 2018). Since 2013 the number of publications on the topic has been increasing. The highest incidence of publications reporting interventions focused on mentalization and reflective functioning was observed during 2016 and 2019, with seven publications found in each year (Ashton et al., 2016; Barnicot & Crawford, 2019; Bateman et al., 2016; Einy et al., 2019; Enav et al., 2019; Esposito et al., 2019; Griffiths et al., 2019; Hertzmann et al., 2016; Kivity et al., 2019; Meschino et al., 2016; Pajulo et al., 2016; Stacks et al., 2019; Suchman et al., 2016; Ware et al., 2016). During 2015 and 2017 four publications were found in each year (Bo et al., 2017; Bressi et al., 2017; Edel et al., 2017; Freda et al., 2015; Howieson & Priddis, 2015; Rice et al., 2015; Rosenblau et al., 2015; Suchman et al., 2017). In 2013 and 2014 three publications were found in each year (Bain, 2014; Ensink et al., 2013; Ingley-Cook & Dobel-Ober, 2013; Ordway et al., 2014; Ramsauer et al., 2014; Sadler et al., 2013). In 2011 and 2012 just one publication was found in each year (Jakobsen et al., 2012; Twemlow et al., 2011).

The distribution of publications per year reflects the evolution of research in the field of mentalization theory, carried out by Fonagy and collaborators since the 90s (Holmes, 2006; Slade, 2007). Moreover, the creation of specific study groups dedicated to the development of intervention programs for parents and younger children in a high-risk environment (Slade, 2007), may also contributed with the increasing of the research.

Upon analyzing the concepts of M and RF throughout the review, it was observed, as shown in Figure 2, that these terms emerged in the literature in 2009, with mentalization being the predominant concept explored until 2015. These findings are consistent with a study that reported a significant increase in the use of the term mentalization between 1991 and 2017, which went from 7 to 844, according to the Thompson Reuter searcher - Web of Science (Malda-Castillo et al., 2019).

**Figure 2**

*Presentation of RF and M over time*



Moreover, as shown in Figure 2, since 2013 theoretical articulations among the differences between M and RF have been observed, with a peak in 2016. As for RF, even though it was not present in the theoretical body of scientific studies, it was treated by several researchers as a synonym of M from 2013, leading to an indiscriminate use of both terms. The terms were defined as being the perception of oneself and others as psychological subjects, considering thoughts, feelings, intentions, desires and motivations implicit in behavior (Ensink et al., 2015).

Therefore, it can be seen that RF has been mentioned, in many studies, as an instrument for analyzing M, being reported as an observable and measurable manifestation of M (Bain, 2014; Bateman et al., 2016; Bo et al., 2017; De Meulemeester et al., 2018; Pajulo et al., 2016; Ramsauer et al., 2014). This may have been generated from the initial understanding that M entails a reflexive and introspective behavior that enables an individual to recognize both their own and others intentional and underlying mental states. However, it should be noted that M and RF are distinct concepts, and despite recent literature highlighting the differences between the concepts, they are still being treated as synonyms in some of recent studies, indicating the need for a theoretical consolidation.

The findings of this review were examined according to the following categories: 1) Aims, 2) Study design, 3) Participants, 4) Type of intervention, 5) Intervention assessments, and 6) Outcomes. Considering the category 1) Aims, two subcategories were explored: 1a) studies focused on describing and exploring the results of the applied intervention; and 1b) studies focused on the intervention efficacy.

The subcategory 1a stands out, comprising twenty-one of the publications which explored the effect of the interventions, such as Creating a Peaceful School Learning Environment (CAPSLE), a manual-based antiviolence program/mentalization-based intervention, a manualized School Psychiatric Consultation (SPC) and treatment-as-usual (TAU), in reducing aggression and victimization among elementary school students (Fonagy et al., 2009). Another study, focused on patients with major depressive disorder, compared the effects of third-wave cognitive therapy versus Mentalization Based Therapy (MBT; Jakobsen et al., 2012). Still in subcategory 1a, ( $n = 18$ ) of studies aimed to describe the interventions and explore their results.

Some of them were implemented in various settings, such as schools (Twemlow et al., 2011); forensic contexts (Ware et al., 2016); with novice therapists (Ensink et al., 2013); group therapy with adolescents with borderline personality disorder (Bo et al., 2017) and with children who are adopted or in the process of adoption (Ingley-Cook & Dobel-Ober, 2013). Other interventions took place in hospitals, with pregnant women using substances (Pajulo et al., 2016) and mothers diagnosed with postpartum depression (Vik & Hafting, 2009); in a clinical context comparing implicit and explicit mentalization processes in individuals diagnosed with Autism (Rosenblau et al., 2015); in a family context focusing on mediation programs (Howieson & Priddis, 2015) and finally, interventions targeting mothers and fathers that explored PRF (Ashton et al., 2016; Enav et al., 2019; Ordway et al., 2014; Ordway et al., 2018; Stacks et al., 2019).

The subcategory 1b identified thirteen studies, which aimed to evaluate the effectiveness of interventions (Bain, 2014; Bateman et al., 2016; Bressi et al., 2017; De Meulemeester et al., 2018; Freda et al., 2015; Griffiths et al., 2019; Hertzmann et al., 2016; Meschino et al., 2016; Ramsauer et al., 2014; Rice et al., 2015; Sadler et al., 2013; Suchman et al., 2017; Suchman et al., 2016). Six of them were focused on M and PRF (Bain, 2014; Meschino et al., 2016; Ramsauer et al., 2014; Sadler et al., 2013; Suchman et al., 2017; Suchman et al., 2016). Considering these data, despite most studies ( $n = 18$ ) have been dedicated to the description and evaluation of interventions, a large portion of

the studies ( $n = 13$ ) have evaluated the effectiveness of interventions focused on RF and M in different populations and contexts, denoting a search for more evidence-based practices in the field (Melnik et al., 2014).

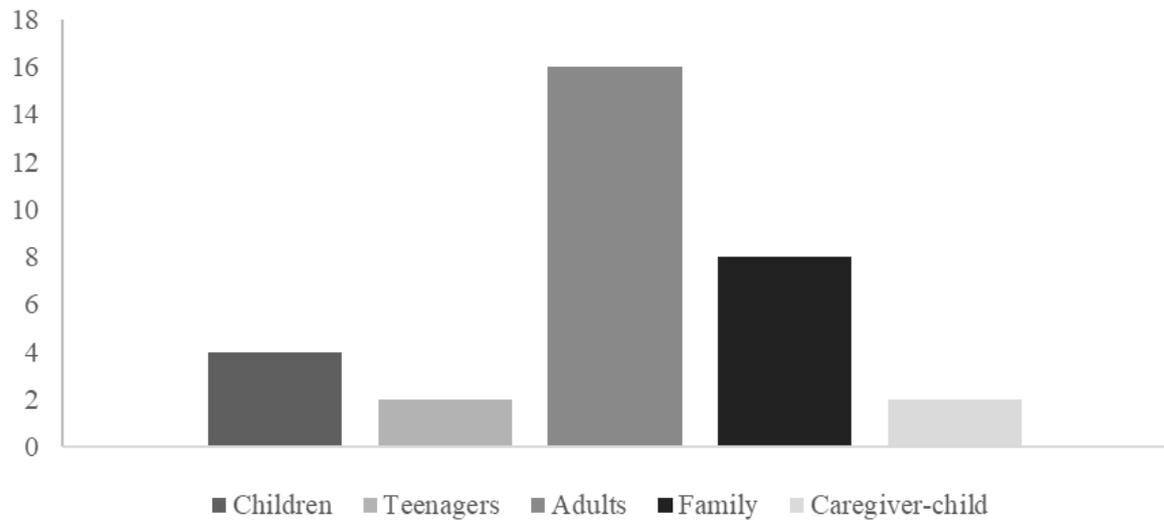
The category 2) Study design was divided into three subcategories: 2a) quantitative studies; 2b) qualitative studies; and 2c) mixed-methods studies. The 2a stands out, covering 29 studies, most of them focused on randomized control trials (RCT) and pilot studies. Only five of them performed follow-ups (Bressi et al., 2017; Einy et al., 2019; Enav et al., 2019; Ingley-Cook & Dobel-Ober, 2013; Ordway et al., 2014). Only three studies were included in the subcategory 2b. All of them using a qualitative design (Ordway et al., 2018; Vik & Hafting, 2009; Ware et al., 2016). Subcategory 2c counted with 2 mixed-methods studies (Hertzmann et al., 2016; Howieson & Priddis, 2015). It was observed a tendency to carry out quantitative investigations and, in particular, RCT, since this type of clinical trial has a low incidence of bias, being considered the gold standard procedure to evaluate the effectiveness of treatments (Leonardi, 2017).

The predominant choice of a controlled and evidence-based design is in line with the study aims, most of them focused on the evaluation of intervention's effectiveness, since RCT and meta-analyses have been considered important methods to evaluate interventions efficacy and effectiveness (Baptista, 2010). Moreover, the follow-up strategy, which is recommended in efficacy and effectiveness studies to assess the maintenance of results after the end of the intervention, was not applied in most studies, which was also reported in the studies conducted by Volkert et al. (2019) and Malda-Castillo et al. (2019), where most of the reviewed studies did not do or did not report the follow-up procedure.

Regarding a small range of publications using a qualitative approach, it should be noted that qualitative studies may be consider in future research, since they allow the exploration and implementation of new interventions, as well as the identification of procedures that can be effective in a clinical context (Leonardi, 2017).

Related to category 3) Participants, it refers to the target population, and it was divided into five subcategories: 3a) children; 3b) teenagers; 3c) adults; 3d) family; and 3e) caregiver-child. The subcategory 3c had a total of 17 studies (Barnicot & Crawford, 2019; Bateman et al., 2016; Bressi et al., 2017; De Meulemeester et al., 2018; Edel et al., 2017; Einy et al., 2019; Ensink et al., 2013; Esposito et al., 2019; Freda et al., 2015; Jakobsen et al., 2012; Kivity et al., 2019; Pajulo et al., 2016; Rosenblau et al., 2015; Suchman et al., 2017; Vik & Hafting, 2009; Ware et al., 2016), with the others distributed as shown in Figure 3.

**Figure 3**  
*Participants*



The emphasis on having the adults as the main participants of the studies may be related to the initial work of Fonagy and collaborators, when developing the MBT, which was originally focused on patients with borderline personality disorder, information that can be corroborated by a review conducted by Volkert et al. (2019), which explored mentalization-based treatments for patients diagnosed with borderline personality disorder. The study pointed out that adolescent population was less prevalent in the reviewed studies. The participation of families in the studies, however, denotes the expansion of the application of the concepts of RF and M to the scope of parents-child relationships.

The category 4) Type of intervention was divided into two subcategories: 4a) interventions in a clinical context (applied in clinics, which follow the standard setting of psychotherapies) and 4b) interventions in other contexts (applied in different contexts that do not follow the standard setting of psychotherapies). The category 4b) comprises twenty studies (Bain, 2014; De Meulemeester et al., 2018; Edel et al., 2017; Ensink et al., 2013; Esposito et al. al., 2019; Fonagy et al., 2009; Freda et al., 2015; Howieson & Priddis, 2015; Ordway et al., 2014; Ordway et al., 2018; Pajulo et al., 2016; Rice et al. , 2015; Rosenblau et al., 2015; Sadler et al., 2013; Stacks et al., 2019; Suchman et al., 2016; Suchman et al., 2017; Twemlow et al., 2011; Vik & Haftig, 2009; Ware et al., 2016). On the other hand, category 4a), which compiled the interventions in clinical settings, counted with nine studies (Ashton et al., 2016; Bateman et al., 2016; Bo et al., 2017; Bressi et al., 2017; Hertzmann et al., 2016; Ingley-Cook & Dobel-Ober, 2013; Jakobsen et al., 2012; Meschino et al., 2016; Ramsauer, 2014). Table 1 shows some examples of interventions cited more frequently and which have not yet been portrayed in this writing.

**Table 1***Examples of interventions found in the review*

<b>Intervention</b>	<b>Brief dscription</b>
Mentalization-Based Therapy for Parental Conflict—Parents Together (MBT-PT) (Hertzmann et al., 2016)	Brief intervention, from 6 to 12 sessions of 1 hour per week, adapted to be used in interparental conflicts.
Prenatal intervention – hospital setting in public healthcare (Pajulo et al., 2016)	Intervention using ultrasound consultation and pregnancy journal.
Marte Meo Postpartum clinical intervention (Vik et al., 2009)	Video recordings of mother-infant interactions, which are reviewed and edited with the therapist and used for maternal coping.
Circle of Security Intervention (COS) (Ramsauer et al., 2014)	Brief insight-oriented therapeutic group for parents, which combines psycho-educational, cognitive-behavioral and psychodynamic intervention techniques.
Minding the Baby (MTB) (Ordway et al., 2014; Sadler et al., 2013)	Weekly home visits by a multidisciplinary team to accompany mother and baby from mother’s third trimester of pregnancy up through child’s second birthday.
Mothering from the inside out (MIO) (Suchman et al., 2016)	12-week mentalization-based individual psychotherapy, focused on the psychological deficits associated with substance use, such as parental reflective functioning.
New Beginnings (Bain, 2014)	Manualized parent-infant psychotherapy group, composed by 12 sessions with high-risk mother-infant dyads.
Trauma and Attachment Group (TAG) (Ashton et al., 2016)	Intensive 8-month intervention designed for children with developmental trauma. The intervention is composed by (a) stabilization and (b) encouragement.
Mentalization training for novice therapists (Ensink et al., 2013)	Group intervention using modeling practices, clinical vignettes and feedback.
MBT (Barnicot & Crawford, 2019; Bateman et al., 2016; Einy et al., 2019; Jakobsen et al., 2012; Ware et al., 2016)	18-Month mentalization based therapy, consisting of combined individual and group psychotherapy.

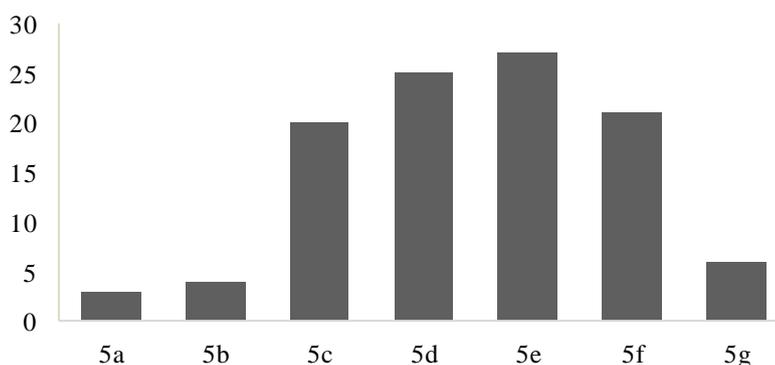
Intervention	Brief dscription
MBT combined with DBT (Dialectical Behavioral Therapy) (Edel et al., 2017)	Group intervention that combines MBT and DBT designed to address meaning of mentalization, background and goals of MBT; attachment and attachment styles, understanding one’s own attachment style; mentalizing problems; prerequisites for mentalizing; mentalization skills; recognize and deal with own and others' emotions; recognize and deal with own and others' thoughts; recognize and deal with own and others' intentions, desires, and limitations.
Mentalization-based group therapy for teenagers (MBT-G) (Bo et al., 2017; Griffiths et al., 2019)	Group intervention, adapted from the original MTB program, lasting up to 1 year.
Emotion regulation group (Ingley-Cook & Dobel-Ober, 2013)	Mentalization-based group program, focused on children in process of adoption or adopted.

There is a diversity of interventions that can be applied to develop M and RF, and in the last 5 years it was observed an increase of studies about programs focusing on PRF. MBT is the most prevalent intervention among the interventions which stand out in this review, possibly because Fonagy and collaborators seek to investigate evidence of its efficacy and effectiveness. Therefore, MBT has been serving as inspiration for other proposals, which use its theoretical and technical principles. Moreover, most of the reviewed interventions focused on the treatment of psychopathologies, such as borderline personality disorder, autism spectrum disorders and major depressive disorder, and were applied in different contexts, such as clinical, school, hospital and community.

The category 5) Intervention assessments, is related to the measures used to evaluate the interventions. A range of instruments was observed (n = 107). The instruments used assessed different indicators of change, requiring the creation of subcategories for better exploration. Thus, the following subcategories were developed: 5a) family sociodemographic data collection; 5b) evaluation of the therapeutic alliance (TA) and countertransference (CT) of the participants towards the intervention; 5c) to measure RF and M; 5d) to measure symptomatology of the participants; 5e) Mother-child interaction; 5f) Functioning and global development of the participants; 5g) Specific evaluation of the intervention. The total number of instruments obtained are shown in Figure 4.

**Figure 4**

*Distribution of instruments by subcategory*



In this sense, subcategory 5e concentrated 27 instruments focused on capturing maternal sensitivity, attachment patterns, social adjustment and the type of interaction of mother-infant dyad. Among the 27 instruments found, the Strange Situation Procedure (SSP) was the most used ( $n = 3$ ) (Ramsauer et al., 2014; Sadler et al., 2013; Suchman et al., 2017), followed by sessions of mother-child free play ( $n = 2$ ) (Ordway et al., 2018; Suchman et al., 2016).

In the subcategory 5d, twenty-five instruments assessed maternal mental health conditions, such as anxiety, depression, stress, alexithymia, and borderline personality. The Beck Depression Inventory (BDI) stands out here, being applied in five studies (Bateman et al., 2016; Bo et al., 2017; Edel et al., 2017; Jakobsen et al., 2012; Ramsauer et al., 2014). In subcategories 5c and 5f, with twenty and twenty-one instruments each, the use of the Parental Development Interview (PDI) stands out (Enav et al., 2019; Hertzmann et al., 2016; Ordway et al., 2016; Sadler et al., 2013; Suchman et al., 2017), as well as the Parental Reflective Functioning Questionnaire (PRFQ; Ashton et al., 2016; Hertzmann et al., 2016; Pajulo et al., 2016; Ramsauer et al., 2014).

The subcategory 5g, which encompasses six instruments, focused on a range of interviews to assess interventions (Hertzmann et al., 2016; Howieson & Priddis, 2015; Ingley-Cook & Dobel-Ober, 2013; Meschino et al., 2016; Vik & Hafting, 2009; Ware et al., 2016). Finally, the subcategories 5a and 5b, with 3 and 4 instruments each, with semi-structured interviews reported twice on the subcategory 5a ( $n = 2$ ) (Ordway et al., 2014; Sadler et al., 2013). In the subcategory 5b, the measures applied were the Working Alliance Inventory-Revised (Sadler et al., 2013), the Parenting Alliance Measure (PAM; Hertzmann, 2016), the Countertransference Rating Scale (CRS; Ensink et al., 2013) and the Psychotherapy Q-Sort (Kivity et al., 2019).

Considering that mentalization theory has been explored and implemented in recent decades, it was observed few instruments used to assess the intervention, with only one instrument developed for this purpose. The Revised MIO/PE Adherence Rating Scale (Sadler et al., 2013; Suchman et al., 2017), was the only instrument reported on the studies to evaluate the efficacy of the program *Mothering from the Inside Out* (MIO). This statement may be responsible for a variability of measures found, which are used in the evaluation of different indicators of change which guided the discussions related to intervention's outcomes. According to Baptista (2010), despite limitations in the field of studies on evidence of effectiveness in psychotherapeutic processes, it is possible to establish assessment protocols and accurate procedures, such as meta-analysis.

The category 6) Outcomes, highlighted that the proposed interventions, mostly, have showed satisfactory outcomes, ( $n = 23$ ) (Bain, 2014; Bateman et al., 2016; Edel et al., 2017; Enav et al., 2019; Ensink et al., 2013; Einy et al., 2019; Fonagy et al., 2009; Freda et al., 2015; Griffiths et al., 2019; Howieson & Priddis, 2015; Kivity et al., 2019; Ordway et al., 2018; Rosenblau et al., 2015; Rice et al., 2015; Ware et al., 2016; Sadler et al., 2013; Stacks et al., 2019; Suchman et al., 2016; Suchman et al., 2017; Twemlow et al., 2011; Vik & Hafting, 2009). Among them, interventions based on MBT have been effective, decreasing symptoms severity in patients diagnosed with borderline personality disorder and antisocial personality disorder (Bateman et al., 2016; De Meulemeester et al., 2018; Edel et al., 2017; Einy et al., 2019). Improvement on emotion regulation, behavior (Ware et al., 2016), as well as in mentalization and attachment patterns established between peers (Bo et al., 2017) were also observed.

MBT, when combined with Dialectical Behavior Therapy (DBT), achieved even more satisfactory results in reducing insecure attachment and improving mentalization in patients diagnosed with borderline personality disorder (Edel et al., 2017). Both approaches prioritize the creation of a secure relationship in therapy, the use of empathy

and validation in reciprocal relationship, the strengthening of patient's capacities to reduce impulsive behaviors, as well as the increase of self-awareness (Swenson & Choi-Kain, 2015).

On the other hand, a study conducted by Jakobsen et al. (2012) pointed out that third-wave cognitive therapy may be more effective than MBT in addressing depressive symptoms. Similarly pointed out the study of Barnicot and Crawford (2019), especially regarding the reduction of self-injurious behaviors over time. However, it is suggested investments in RCT to evaluate the effectiveness of different approaches. Furthermore, it should be noted that studies focused on the evaluation of DBT effectiveness have been more prevalent in the last decade.

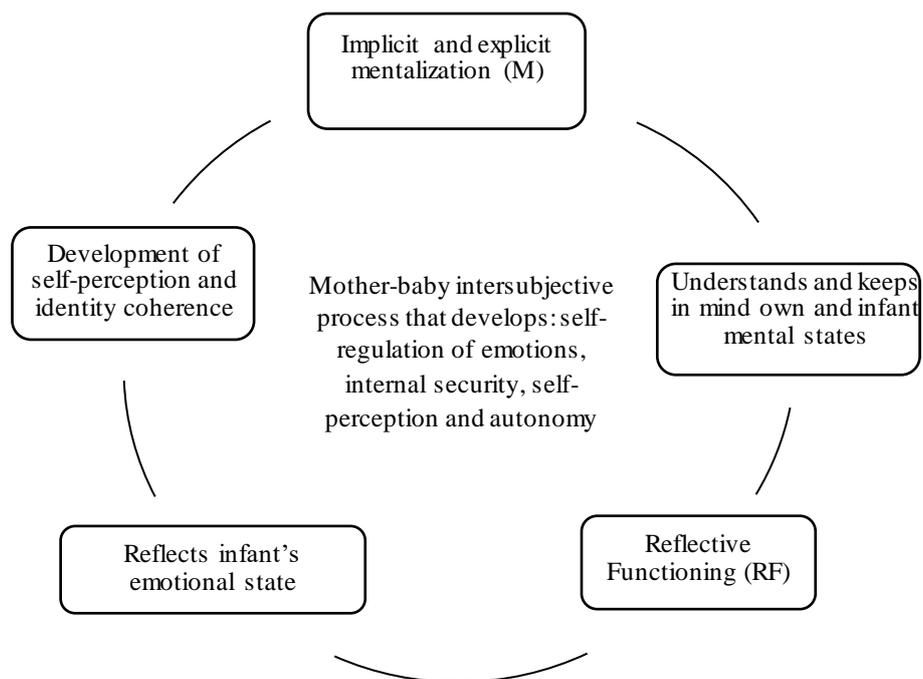
### Conclusions

It is noteworthy that the terms mentalization and reflective functioning are relatively new in psychology and have been explored extensively in recent decades, with a large number of publications in 2016. While these constructs are related, they have particularities that should be considered in further studies. Reflective functioning has been presented in some studies as being equivalent to mentalization, resulting in instruments that assess RF being used to measure mentalization. This finding highlights a lack of measures to evaluate mentalization and reflective functioning separately.

On the other hand, as research progresses into different contexts, an important differentiation between mentalization and reflective functioning has emerged. It is suggested that the literature consider the interdependence between mentalization and reflective functioning, as illustrated in Figure 5. This is because an individual may demonstrate adequate mentalization but experience difficulties with their reflective functioning, while the opposite may not necessarily be true.

**Figure 5**

*Interdependence between M and RF concepts*



Source. Figure prepared by Márcia Pinheiro Schaefer for this article.

Although most of the research evaluated in this study aimed to verify the effectiveness of interventions focused on mentalization and reflective functioning, possibly expressing a movement aimed at evaluating outcomes to consolidate proposals related to the theme and the need to build evidence-based practices, it is understood that regarding quantitative studies, it is now required for researchers to return to the specificities of the proposals, as well as their scope in different contexts through qualitative or mixed-methods designs.

Faced with interventions that used MBT, it is suggested that RCT be further explored. Another important point is carried out studies with follow-up, which may contribute to the evaluation of evidence-based treatments, as well as to identify possible changes in interventions over time.

Considering that the outcomes of the studies pointed out that interventions focused on mentalization and reflective functioning have the potential to contribute to the establishment of a secure attachment, it is crucial to expand intervention programs in different contexts, targeting different populations, such as parent/caregiver-child dyads and triads, as well as different ethnic groups. Moreover, there is a need to develop measures to assess mentalization and reflective functioning and report interventions in other countries, such as countries from Latin America are needed.

As limitations of this review, the non-inclusion of research conducted in Brazil should be noted. Although some studies have been published, the use of keywords not indexed in the publications or the unavailability of some papers in databases at the time of the query may have result in the failure to find these publications.

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