



## **DOCTORAL PROGRAM IN PSYCHOTHERAPY**

Universidad de Chile  
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## **DOCTORAL DISSERTATION**

### **Effectiveness of a mentalization- and group-based intervention with Videofeedback for mothers of preschool children**

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*To all those people loving of the inner world*

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### 3. Summary

**Background.** The ability to reflect and explore the inner world and its influence in behavior, which is named Parental Reflective Function, is a key factor to develop a secure attachment and a healthy socio-emotional development (Fonagy, Steele, Moran, Steele, & Higgitt, 1991a; Slade, 2005; Fonagy, Gergely, Jurist, & Target, 2004). This ability and parenting in general have endure effects on socio-emotional development, and might be enhanced by a secure attachment pattern, social support, and certain interventions (Camoirano, 2017; Shonkoff & Meisels, 2000), and/or inhibited by levels of stress, and trauma and deprivation (Slade, 2005).

**Objective.** To describe and analyze the effectiveness of a group- and mentalization-based intervention with Videofeedback for mothers of preschool children.

**Method.** Quasi-experimental, exploratory, correlational, and longitudinal design with quantitative methodology was used. N=125 mothers with their preschool children ( $M=44$  months) accepted to participate in the study. They were evaluated at basal, second, and follow-up for: Parental Reflective Functioning (*FMSS-RF*; Adkins & Fonagy, under review; Adkins, Luyten & Fonagy, 2018; Bammens, Adkins & Badger, 2015), References to Mental States (Farkas et al., 2008, 2017), Parenting Interactions with their children (PICCOLO; Roggman et al., 2013a, 2013b), Parental Stress (PSI-SF; Abidin, 1995), mother's Anxiety and Avoidance in Attachment (ECR-SF; Spencer, Guzmán, Fresno, & Ramos, 2013; Wei, Russel, Mallinckrodt, & Vogel, 2007), and Socio-Emotional Development risk of children (ASQ-SE; Squires & Bricker, 2009). Descriptive, correlation, regression, and cluster analysis were conducted in order to characterize the sample, to describe the effect of the intervention over variables of interest, and to describe profiles of mothers before and after intervention.

**Results.** Main results of this study are a) mean scores of PRF are much lower than other studies with clinical and non-clinical samples; b) PRF appears as a moderate protective factor of SED risk in children, c) intervention's effectiveness is confirmed and associated to the use of videofeedback, as well as a buffer effect for the negative influence of social risk, poor PRF, high parental stress, anxiety and avoidance in mother's attachment over the SED risk of children, and d) four groups of mothers were identified, grouping mainly by parental stress and children's SED risk. These groups are consistent with PRF levels of mothers.

**Discussion.** The sample of this study was an at-risk sample. The outcomes point out the necessity of including PRF assessment in parenting and early interventions, as a variable that is modifiable and present in changes of interventions. Videofeedback and group-based interventions configure a relational offer for the caregivers and their children. The research findings are related to clinical and research implications.

#### 4. Introduction

*“It is in this way that dyadic interaction, especially in the course of joint activity, produces its most powerful developmental effects (Bronfenbrenner, 1979, p. 58) (...) I have referred to this requirement as the child's need for "the enduring irrational involvement of one or more adults in care and joint activity with the child" (Bronfenbrenner, 1978).*

Happy and healthy development, as well as children’s flourishing and brain architecture and development, depend on the context of healthy and reliable relationships with significant adults; inside or outside the family, and never isolated from them (Brophy-Herb, Dalimonte-Merckling, Senehi, & Kwon, 2016; Cassidy & Shaver, 1999; Dunn, 1993; Greenspan, De Gangu, & Wieder, 2001, 2007; National Scientific Council on the Developing Child, 2004; Shonkoff & Phillips, 2000).

There are several key parenting abilities that have been described and Parental Mentalization has stood out among them, referring to caregiver’s ability to represent and understand the child's internal experiences, to hold him/her in mind, and to associate child's mental states with his/her behavior in a precise manner (Fonagy, Bateman, & Luyten, 2012; Slade, 2005).

The ability to reflect and explore the inner world is a key factor to develop a secure attachment system, to explain the intergenerational transmission of it, as well as that Mentalization develops more favorably in the context of secure attachment (Fonagy, Steele, Moran, Steele, & Higgit, 1991a; Slade et al., 2005; Fonagy, Gergely, Jurist, & Target, 2004). In this regard, emotional regulation precedes mentalization, since mentalizing requires being able to understand internal experiences (Fonagy, et al.,



2004) and these early experiences give the baby the opportunity to learn from mental states (Slade, 2005).

In the same extent in which caregiver's capacity to a) establish healthy relationships, b) develop an adequate Reflective Function, and c) offer rich emotional regulation experiences for his/her child will affect the course of child's development, there are several factors that have been identified as influence of these parenting abilities. First, caregiving experience of the caregiver in their childhood (e.g. George & Solomon, 2008), attachment pattern (e.g. Fonagy, Bateman, & Luyten, 2012; van IJzendoorn, 1995), parental stress (Belsky Bell, Bradley, Stallard, & Stewart-Brown, 2006; McLoyd, 1990,1998; Zarate, 2006), trauma and deprivation (Ensink, Berthelot, Bernazzani, Normandin, & Fonagy, 2014; Fonagy, Steele, Steele, Higgitt, & Target, 1994), individual characteristics of the child (e.g. Dix, 1991), social support (Abidin, 1992; Klijs Mendes de Leon, Kibele, & Smidt, 2017; Thoits, 2011), and educational level (e.g. Ensink, Normandin, Plamondon, Berthelot, & Fonagy, 2016).

There are situations that have been identified as accurate to elicit the use of mentalization and explore the inner world (Siegel & Hartzell, 2010; Slade, 2005; Winnicott, 1965), but because of factors like those described before, this might not occur even in this special situations, where caregivers will tend to focus on behavioral components in disrepair to mental states, which may drive child's attention to these elements hindering the potential emotional understanding (Doan & Wang, 2010; Taumoepeau & Ruffman, 2006, 2008).

All above means that caregivers who manifest higher levels of interest and curiosity about their child's inner world, would show greater competence to provide a secure base and safe haven to him/her (Luyten, Bridgett, & Mayes, 2013; Marvin, Cooper, Hoffman, & Powell, 2002; Rutherford, Goldberg, Luyten, Bridgett, & Mayes

2013), as well as protecting their development in the present and later (ag. Bowlby, 1969; Fonagy et al., 1991a; Wong, 2012).

Specifically, preschool age entails transformations for both parents and children, due to the child's great advance in autonomy and communication through communicative and narrative language (Cicchetti, 1990, Tirapu, Pérez, Erekato & Pelegrín, 2007), development of the Theory of Mind (Premack & Premack, 1995), increasing interest in other children (Eckerman, Davis & Widow, 1989), attendance to kindergarten and establish new relationships with other significant adults and peers (Cicchetti, 1990), between others.

Sroufe (1983 cit. In Cicchetti, 1990) reports that the quality of the adaptation shown by preschoolers is largely influenced by how parents have handled the impulses and feelings that they exhibit in the transition between childhood and the preschool period. Similarly, the scientific literature has been clear in mentioning that low levels of emotional and cognitive regulation are associated with high risks of child maltreatment and, in turn, high levels of emotional and cognitive regulation are associated with more sensitive parenting (Crandall, Deater-Deckard, & Riley, 2015). But, non less important, caregiver's ability to perceive, respond and flexibilize in the relationship with their children in situations of children's behaviors that are especially challenging (Barret, & Fleming, 2011).

The enduring effects of parenting experience in later mental health and development have lead to the design of several early intervention (Shonkoff & Meisels, 2000). They aim to buffer the negative effects of the risk factors related to poor mental health and its added problems, as well as the hughe advances in neuroscience and specific knowledge about caregiver-child relationship influence (National Scientific Council on the Developing Child, 2004; Schore, 2001; Stern, 1997). It is in this context

where arise mentalization-based interventions, which are frequently brief, focused on affects and mental states, and in children of 3 years old or younger (Asen & Fonagy, 2012; Camoirano, 2017), aiming to enhance the ability of the adult to understand his/her child in terms of mental states (Slade, 2006).

For decades, Videofeedback has been implemented as a strategy to promote Parental Sensitivity and in a lesser extent in Mentalization. It is a strategy that uses feedback through videos, and which has been shown to be useful for intervention approaches aimed at improving the quality of caregiver-child interaction and those aimed at strengthening the ability of parents to see their children in terms of mental states (Allen & Fonagy, 2006; Bakermans-Kranenburg, van IJzendoorn & Juffer, 2003; Gómez y Muñoz, 2012; Suárez, Muñoz, Gómez, & Santelices, 2009; Olhaberry, Mena, Zapata, Miranda, Romero & Sieverson, 2015; Olhaberry, León, Seguel, & Mena, 2015; Olhaberry, León, Sieverson, Escobar, et al., under review). However it has been reported to a lesser extent and with pilot studies and/or small samples, in specific populations and clinical interventions, and not in preventive interventions and the general population (Santelices et al., 2016).

Videofeedback approach is centered on strengths and helps caregivers to discover themselves from a new and positive perspective (e.g. McDonough, 1995). It has been reported that being a visually specific and distant tool - since it is a situation that represents everyday moments but that is not happening at the moment it is observed - it is less overwhelming and opens up greater possibilities of understanding for the adult; the image or the segment becomes a vehicle for translation and discussion that allows to see the nonverbal behaviors of the adult and the child (Beebe, 2003; McDonough, 2000; Rusconi-Serpa, Rossignol, Zelenko & Benham, 2000). The mechanism of the success of Videofeedback has not been quite described, but

neuroscience has allowed progress in this direction, allowing the approach of the mechanisms underlying the operation of Videofeedback. It is already known that brain reaction and activation are different when seeing images of oneself, one's children and other children (Devue & Bredart, 2011), activating brain zones that are related to the Theory of Mind, mediation of emotional response (Leibenluft, Gobbini, Harrison, & Haxby, 2004), and zones related to more complex cognitive and motor processing and decoding of emotions (Noriuchi, Kikuchi, & Senoo, 2008).

Group interventions focused on parenting have also been increasing (National Center for Parent, Family and Community Engagement, 2015), specially in more at-risk populations, because they allow to cope to isolation and foster social support (Elder, Nguyen, & Caspi, 1985; Kirk, 2006; Kohen, Leventhal, Dahinten, & McIntosh, 2008; Murphy, Steele, & Steele, 2013; Pinderhughes, Nix, Foster, & Jones, 2007), as well as caregivers have a concrete opportunity to express and understand themselves as for other caregivers' experience (Yalom & Leszcz, 2005).

On the other hand, group-based interventions that use Videofeedback are scarce compare to individual ones (Sievers, Zapata, Santelices, in prep.), and they have reported positive and significant outcomes in caregiver's and relationship's variables. Literature argues that the group-based intervention focused on reflective functioning makes a relational offer for participants, offer that caregiver will exercise with his/her child (Murphy et al., 2012). In order to achieve this goal, facilitator role is quite fundamental, because he/she has to lead the interaction in order to promote reflection avoiding a role of an expert in the group, as well as provide a containing, secure and reliable environment (Cassidy, Brett, Gross, Stern, Martin, Mohr, & Woodhouse, 2017; Marvin et al., 2002; Murphy et al., 2012; Pazzagli, Lghezza, Manaresi, Mazzeschi, & Powell, 2014; Steele et al., 2010; Toranzo & Taborda, 2002).

To date, scarce is the evidence of Videofeedback, mentalization and group-based interventions compared with individual therapies, and in Latin America, even lesser is known about this topics. However, Chile highlights as a pioneer country investigating and implementing interventions in the frontier of knowledge. All above leads to the main question of this study “What is effectiveness of a mentalization- and group-based intervention with Videofeedback for mothers of preschool children?”

In this doctoral dissertation you will find theoretical and empirical evidence of a pioneer intervention conducted in Santiago-Chile, with a non-clinical sample of mothers of preschool children. To respond to the main research question, a quasi-experimental, exploratory, correlational, and longitudinal design with quantitative methodology was used. This study poses a general and specific objectives and hypothesis that will be tested one by one, evaluating variables of interest using questionnaires, interviews, and filmed interactions: Parental Reflective Function, Mental States References, Attachment of mother's, Parental Stress, quality of the Parenting Interactions of mothers, and children's Socio-Emotional Development.

This doctoral dissertation configure the work of 4 +1 year-period: 8 academic and 2 postnatal leave semesters. You will find at first, research problem establishment and theoretical and empirical background underlying the problem, followed by the present study design and methods, that give scientific reliability and validity to the study. Finally, you will find the results of this study reported in three sections, followed by the discussion and conclusion considering clinical and research implications.

I hope this research gives you a new –or enriched- perspective of the fundamental fact of cherishing caregivers in their role, and the relational offer that we can give to them with early interventions, and consequently to their children.

## 5. Theoretical and Empirical Background

*“If a community values its children, it must also cherish their parents”  
(John Bowlby, 1951, p. 84)*

### 5.1 The Study of Mentalization in the Context of Parenting

The theoretical and empirical scientific literature about early attachments is very extensive and keeps on growing and evidencing the fundamental role they have in later development and mental health.

Scientific evidence is quite conclusive in pointing out the protective value of the environmental conditions for children’s development, the quality of the early interactions with the caregivers and the positive early experiences (e.g. Bouvette-Turcot, Bernier & Leblanc, 2017; Center on the Developing Child at Harvard University, 2016; Planalp & Braungart-Rieker, 2013), specially for socio-emotional development and brain architecture (e.g. Briggs-Gowan, Carter, Irwin, Wachtel & Cicchetti, 2004; Center on the Developing Child at Harvard University, 2016; Mi-Sung, 2012; Riera, 2016; Salomonsson, Sorjonen & Salomonsson, 2015), and thus in the child's mental health (e.g. Fonagy, Gergely, Jurist, & Target, 2004; Slade, 2005; Sidor, Fischer, Eickhorst & Cierpka, 2013).

The concept of Parental Mentalization, which is operationalized as Parental Reflective Functioning (hereinafter PRF) has stood out among parental abilities in the last two decades. It was Slade (2005) who defined the Reflective Function in the context of parenting and referring to it as the adult's ability to reflect about his/her child, about him/herself as a parent and about the relationship with his/her child. More specifically, the Parental Mentalization speaks of the ability to represent and understand the child's

internal experiences, to hold him/her in mind and to link the child's mental states with his/her behavior in a precise manner (Fonagy, Bateman, & Luyten, 2012; Slade, 2005).

### **5.1.2. Definition of the construct and its operationalization.**

The concept of “Reflective Self-Function”, and then called Mentalization and Reflective Functioning, arises from the theory proposed by Fonagy, Steele, Steele, Moran and Higgit (1991, p. 202) by referring to the "internal observer of mental life", a construct that allowed enriching the theory of attachment as far as the role that attachment pattern has in evolution, since RF would explain the intergenerational transmission of attachment patterns (Van IJzendoorn, 1995).

Reflective Functioning is the operationalization of the psychological process of mentalizing (Fonagy, Target, Steele, & Steele, 1998) and it arises in the context of the “London Parent-Child Project” (Fonagy, Steele, & Steele, 1991b). In this research it was observed that there was a significant agreement between the attachment patterns of parents and their children. It was suggested that the ability of parents to see their children as subjects with minds and the ability to tune in with them in mental states terms, played a central role in the exercise of parenting and the establishment of attachment bonds (Fonagy et al., 1991b). It is in this scenario that they develop a scale that allow to evaluate the Reflective Function ability of parents, a scale that was initially called “Reflective Self-Function Scale”, now called and known as Reflective Functioning Scale (*RF Scale*; Fonagy et al., 1998).

This study, in part, made it possible to confirm that intergenerational transmission of attachment was not completely explained by parental sensitivity (Verhage, Schuengel, Madigan, Fearon, Oosterman, Cassibba, Bakermans-Kranenburg, & Van IJzendoorn, 2016) and it was the meta-analysis carried out by Van IJzendoorn

(1995) that could empirically show that a large part of the transmission of caregivers' attachment to their children operated through mechanisms other than those related to sensitivity: the sensitive response explained 12% and references to mental states explained 47% of the child's attachment, mental states that are transmitted through other ways than the sensitive response.

Van IJzendorp (1995) explains that the sensitive response, that is usually evaluated, may not capture all the relevant aspects of the communication and mechanisms of the relationship that are responsible for the adult transmitting his/her mental states to the child. Other more recent studies have come to similar outcomes, finding that mothers' mentalization of their own attachment histories is significantly associated with their parental styles and their children's attachments, and that negative parental behaviors explain the relationship between the Reflective Functioning of the mother about her own attachment relationships and the disorganization in the attachment of her children (Ensink, Bégin, Normandin, & Fonagy, 2017; Ensink, Berthelot, Bernazzani, Normandin, & Fonagy, 2014; Ensink, Normandin, Plamondon, Berthelot, & Fonagy, 2016).

The findings reported by the scientific literature have been demonstrating that mentalization is a key factor to develop a secure attachment system and to explain the transmission of attachment styles from generation to generation; as well as that mentalization develops more favorably in the context of secure attachment (Fonagy et al., 1991; Slade et al., 2005; Fonagy, Gergely, Jurist, & Target, 2004).

The key elements that allow to characterize the PRF are: a) the capacity to infer mental states contextualizing in the child's development stage (Slade, 2005); b) recognizing that mental states are opaque, that they cannot be completely known nor can they be inferred in an exact way (Fonagy et al., 1998, Slade, 2005); and c)



recognizing that one's own mental states and those of the child influence each other (Fonagy *et al.*, 1998; Rosenblum, McDonough, Sameroff & Muzik, 2008).

Mentalization is conceived as an inherently human capacity (process), which although it unfolds as such in post-childhood ages, its development begins at birth and depends mainly on the capacity of mentalization of the caregivers and the relationship that is established with them (Fonagy *et al.*, 1991; Fonagy, Gergely & Target, 2007). This means that the fact that a caregiver manages to develop his/her Reflective Functioning will also depend on his/her own experience of parenting and on the reflective capacity of his/her childhood caregivers.

### ***5.1.3. Relationship of mentalizing ability with the pattern of attachment and stress***

In addition to the aforementioned on the fact that the mentalization construct arises from the study of the intergenerational transmission of attachment (Fonagy, Steele, Steele, Moran, and Higgitt, 1991, Slade *et al.*, 2005, Van IJzendoorn, 1995), this capacity is generally studied in conjunction with the attachment bond and other variables related to parenting.

Several studies have referred to the "transmission gap" to talk about what explains the attachment pattern of children and their relationship with the patterns of their caregivers (de Wolff & van IJzendoorn, 1997; van IJzendoorn, 1995), referring to the fact that mothers' mental states about their own childhood attachment histories are not the strongest predictors of maternal sensitivity and secure attachment to their children. Instead of this, the representations that mothers have about their own children could shape this lack of predictors of the transmission of the attachment pattern from generation to generation and of the relationship between the mothers' attachment representations and the sensitive response with their children in the present (George & Solomon, 2008).

In fact, studies have reported that PRF correlates with a child's attachment security and also mediates the relation between mother-child attachment (Slade, Grienenberger, Bernbach, Levy, & Locker, 2005). The curiosity that the adult shows about the inner world of the child is the way in which the mother's attachment influences the self-sense of the infant (Slade, 2005; Rutherford, Goldberg, Luyten, Bridgett, & Mayes, 2013).

Although the theory of attachment derives from a psychoanalytic approach, it presents eclectic proposals with emphasis on ethology, the theory of evolution and cognitive psychology (Bowlby, 1969, Crittenden & Ainsworth, 1989). Bowlby's interest in studying social-emotional development and interpersonal relationships begins years before his proposal of the attachment theory. This theory, meanwhile, begins with the author's interest in understanding how develop people who had suffered significant losses and traumatic events, but with the passage of time and the contributions of other authors, the theory has become more complex and having the form it currently has, being recognized today as a theory of development (Bowlby, 1958; Ainsworth, 1980; Crittenden & Ainsworth, 1989).

The attachment pattern configures an innate motivational system by which an individual seeks proximity to another individual who is seen as protective and who provides adaptive security (Bowlby, 1969). The studies of Bartels and Zeki (2000, 2004) on the neural correlate of attachment, indicate that this bond activates specific regions of the brain that are related to reward systems and that they coincide with areas rich in oxytocin and vasopressin receptors, that is, they produce pleasant experiences and for this very reason, experiences that are sought after. The same authors conclude that human attachment would use a mechanism that overcomes social distance by deactivating the neural networks that are used for critical social evaluation and negative

emotions, as well as those related to mentalization; and that human beings would bond with others through involvement in reward systems, which, in turn, would explain the power that love has to motivate and rejoice. It should be noted that those relationships that are stronger between two people inhibit not only negative emotions but also influence the network involved in making social judgments about those people (Bartels & Zeki, 2000; Bartels & Zeki, 2004).

Bowlby proposed that the need to form a stable bond with parents or primary caregivers is a basic and inherent need of human beings and that it allows survival, so that this behavioral system of attachment in a child will always be interrelated with the adult's caregiving behaviors (Ainsworth, 1978; Bowlby, 1969).

Since human beings, unlike other animals, are born in extreme helplessness or "altriciality", their development is based and depends on an environment of care, which not only involves food, housing and hygiene, but also the first relationships that they establish with the world and that at the same time insert them in the cultural environment (Hastings & Miller, 2014; Keller, 2007). Bowlby (1969), by its part, argued that babies are born with certain potential abilities, but they need a dyadic regulating system to develop them; so the response to crying and the availability to interact socially are the most relevant variables to determine who will be an attachment figure. Thus, babies are not born with the ability to regulate their own emotions and subjective experiences and hence they need a dyadic regulating system, which is the place where the child will seek the adult's proximity to be calm and regain balance (Keller, 2007; Bowlby 1969, Ainsworth et al. 1978).

The attachment system (as well as mentalization) is not always in operation and is not just a set of behaviors that are always operative, but a variety of behaviors that can have similar meanings and objectives, at which point, there will be a display of a

series of signs directed at the caregiver choosing those that are most useful in each particular context (running, crawling, rolling), seeking security and protection in him/her (Sroufe & Waters, 1977). The goal of the attachment system is to achieve security and, therefore, the response of the adult to the request of the child is crucial to the configuration that the child him/herself makes of his protective figure and environment, such as one that is more secure or insecure, predictable or unpredictable.

During the first year of life, the infant internalizes this regulatory system established with the parent and is thus gives shape to the Internal Working Models (Bretherton & Munholland, 1999), that will influence how children adapt emotionally and socially in other relational contexts, since it is the manner that he/she have learned about what to expect from others. The content of these models will depend on the quality of the relationship established by the caregiver with the child and will configure a certain type of attachment and this pattern can be configured as a secure, insecure/avoidant, insecure/anxious and disorganized (Ainsworth et al., 1978; Main & Solomon, 1986). It has been described that it is possible to have several attachment figures, even more than one during the first year of life (Bowlby 1969), and these first relationships will be crucial for the establishment of relationships with people other than the primary caregivers (Crittenden, 2005).

At the same time that the attachment relationship must be predictable, flexibility is described a key feature of attachment since it contributes to the balance of the care system; in this way the sensitivity of the adult is allowed / set in motion, which strengthens the adult's commitment to the child, with feelings of competence and happiness (Ainsworth, Blehar, Waters & Wall, 1978; Bowlby 1969, 1973; Keller, 2007).

Ainsworth and Bell (1970) designed the "Strange Situation" to assess attachment styles, evaluating the ways in which children behaved with their caregivers in conditions of exploration and high stress. This study began in 1955 in Uganda in a small sample of children (N = 28) and it was in the process of this study that they were able to identify the 3 patterns of attachment that they defined later; secure, insecure-avoidant and insecure-ambivalent (Ainsworth et al., 1978; van Ijzendoorn & Sagi-Schwartz, 2008). Then, Main and Solomon (1986) years later described the disorganized attachment style, describing it as a "fright without solution", the paradox and the absence or breaking of an organized strategy of functioning (see Table 1).

Table 1

*Classifications of Attachment Styles according to the Strange Situation*

Group	Brief description
Secure (B) (Ainsworth et al., 1978)	Uses mother as a secure base for exploration. Separation: signs of missing parent, especially during the second separation. Reunion: actively greets parent with smile, vocalization, or gesture. If upset, signals or seeks contact with parent. Once comforted, returns to exploration.
Avoidant (A) (Ainsworth et al., 1978)	Explores readily, little display of affect or secure-base behavior. Separation: responds minimally, Little visible distress when left alone. Reunion: looks away from, actively avoids parent; often focuses on toys. If picked up, may stiffen, lean away.
Ambivalent or resistant (C) (Ainsworth et al., 1978)	Visibly distressed upon entering room, often fretful or passive; fails to engage in exploration. Separation: unsettled, distressed. Reunion: may alternate bids for contact with signs of angry rejection; or may appear passive or too upset to signal, make contact. Fails to find comfort in parent.
Disorganized/ disoriented (D) (George & Solomon, 1990)	Behavior appears to lack observable goal, intention, or explanation – for example, contradictory sequences or simultaneous behavioral displays; incomplete, interrupted movement; stereo types; freezing/ stilling; direct indications of fear/ apprehension of parent; confusion, disorientation. Most characteristics is lack of a coherent attachment strategy, despite the fact that the baby may reveal the underlying pattern of organized attachment (A, B, C).

*Note.* Description in Groups A, B and C are based on Ainsworth et al. (1978). Description in Group D are based on Main & Solomon (1990).

*Source:* Handbook of Attachment, 3rd edition, p. 370.

Crittenden (1995, 2005) specifies and deepens into the Bowlby's model, indicating that being a development theory, it is concerned with how the genetic inheritance interacts with the maturational processes plus the individual experience. The result of this exchange is the one that would produce the differences between individuals in their search strategies of protection, proximity and partner in order to reproduce. That is to say, strategies and behaviors may change if they do not fit in a particular context, but not so the type of attachment established. This model also argues that individual attachment strategies become more complex with the passage of time, given the maturation of the subject and the competencies that has developed and thus, the type of attachment may not change during life, but its strategies may do so.

It has been observed that the distribution of attachment styles in young children is dependent on culture (van Ijzendoorn & Sagu-Schwartz, 2008), but in any case, ranges have been found in which studies tend to coincide: 55-65 % of secure attachment, 22-30% of avoidant attachment, 15-20% of ambivalent attachment, and the minimal part of disorganized (Cassidy & Shaver, 2008).

As far as the distribution of attachment styles in adult populations, a meta-analysis comprising more than 10,000 Adult Attachment Interviews of 36 samples from diverse populations (*AAI*; George, Kaplan & Main, 1985) found that in non-clinical samples 58% of the mothers were categorized as secure, 23% as insecure-avoidant, 19% as insecure-preoccupied and 18% as unresolved (Bakermans-kranenburg & van IJzendoorn, 2009). Other studies carried out with the same instrument used in this study (ECR-SF, Wei, Russel, Mallinckrodt, & Vogel, 2007) in Chilean samples, have found that the means of anxiety and depression are similar to those of other studies with Spanish populations, however, in the Chilean sample there would be a greater

proportion of preoccupied and fearful attachment and a lower proportion of secure attachment in comparison with other studies (Spencer et al., 2013).

In a study in a small sample of mothers with and without depression (N=58) and in which attachment was assessed with the *CaMir*, validated in Chile by Garrido et al. (2009), found that those without depression 85.7% had a secure attachment, 10.7% preoccupied and 3.6% rejecting. On the other hand, in those mothers with depression, it was found that only 28.6% had secure attachment, 31.1% preoccupied, 7.1% rejecting, and 32.1% unclassifiable. (Garrido, Guzmán, Santelices, Vitriol, & Baeza, 2015).

Classifications of adult attachment are based and similar to child's classifications of it, but some authors also offer comprehensive explanations that relate adults' attachment with parenting behaviors (see Table 2) and in the context of adult-adult and close relationships (see Figure 1).

Table 2

*Adult Attachment styles*

Group	Description
Autonomous	Caregiver easily approach and interact with the other caregiver when the child is distressed y se comporta de tal manera que facilita que el niño tenga un exploración incluso más profunda.
Avoidant-Dismissing	Caregiver tends to minimize intimate interaction, often distracting themselves from attachment and caregiving interactions through a defensive focus on exploration. They feel uncomfortable in intimate interactions.
Ambivalent-Preoccupied	Caregiver tends to minimize child's independent exploration, focusing on attachment-caregiving interaction and child's over-dependence on the caregiver. They feel uncomfortable with child's autonomous and exploratory behaviors.
Disorganized	Caregiver's intense fear and anger toward child's attachment behavior leads to disorganization and abdication of the caregiving role. Caregivers may also shift in an unpredictable way from avoidant to ambivalent behaviors and viceversa, patterns of intimidation and compulsive compliance or a strong disengagement.

*Source:* Own elaboration as of Marvin et al. (2002), Main (2000), and Mikulincer, Shaver, & Pereg (2003).

Bartolomew y Horowitz (1991) developed a model that considers the four patterns of attachment described by other authors, adding at their base two dimensions: abandonment anxiety and emotional intimacy avoidance (see Figure 1). Attachment *security* is related to the comfort of being in intimacy with others and personal autonomy, that is, with low anxiety when facing the fact of being abandoned and a positive vision of oneself, worthy of being cared for and loved; and on the other hand, low intimacy avoidance with others and a positive perception of others, coinciding the evaluations they make of themselves with those that others make of them.

In the opposite case, when the image of others is associated with higher *avoidance*, this relates to a high self-confidence and a very low emotional expression, a negative image of others, perceiving them as not very receptive and thus avoiding intimacy. On the other hand, *anxiety* in attachment is related to the vision of oneself according to the degree to which one experiences the anxiety of being rejected and / or abandoned by another.

It can also be observed that those people with low anxiety and avoidance will tend to seek help from others in times of stress, since they have internalized an image of the attachment figure as trustworthy and conceive themselves in a positive way. On the contrary, people with high avoidance will not tend to seek help, because they have incorporated an image of the other as negative and unreliable and of themselves as very reliable. People with high anxiety, will tend to look for a lot of proximity, because they have internalized a vision of themselves as negative and of others as very positive.

Now, as already described, attachment and PRF are not static abilities, but dynamic and likely operate in certain circumstances, reason why its forms of evaluation also consider contexts that allow to elicit it (Fonagy, Bateman & Luyten, 2012).



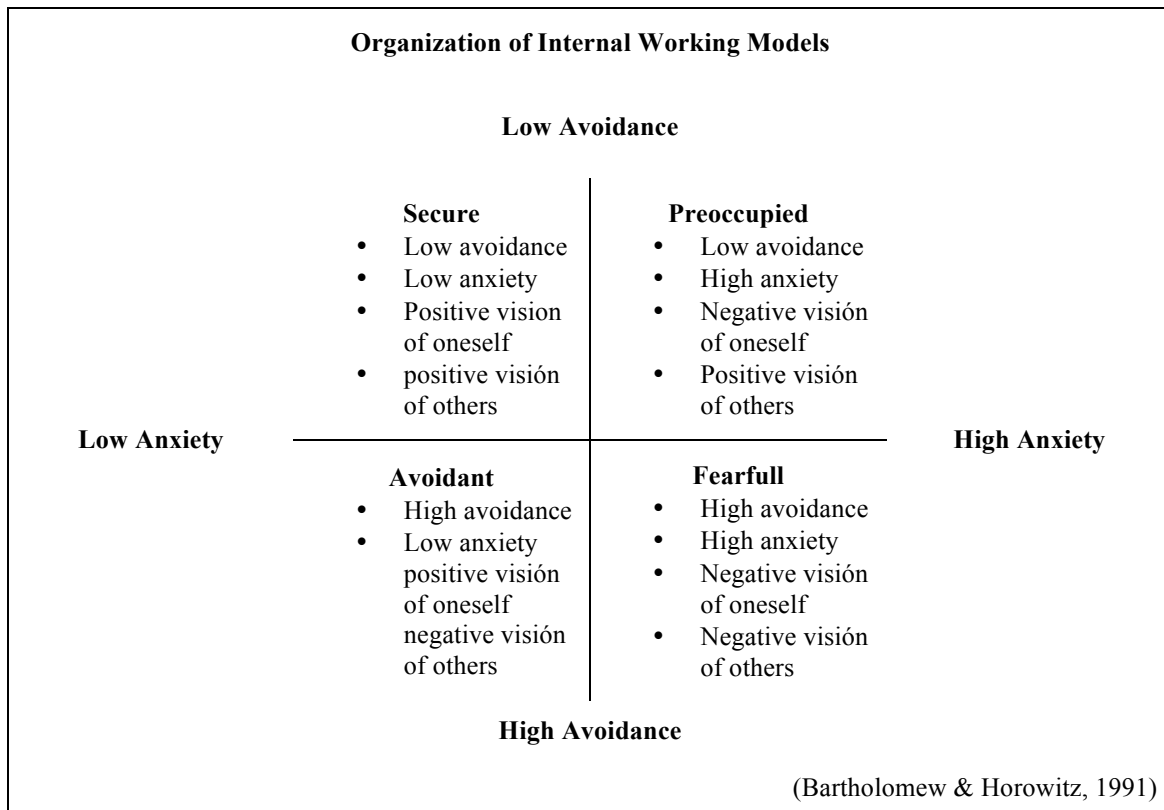


Figure 1. Organization Model of Internal Working Models

Regarding the associations between PRF, attachment and stress, both attachment and mentalization are multifaceted constructs and both contextual factors and individual differences in attachment style may affect mentalization. It has been seen that people differ in the use of attachment activation and deactivation strategies (Mikulincer and Shaver, 2007). In fact, there is a paradoxical relationship between attachment, stress and mentalization, as has already been outlined before. The study in children has shown that in situations of separation, children (e.g. *SSP*; Ainsworth et al., 1978) classified as insecure tend to release significantly more cortisol 15 and 30 minutes after separation, compared to the group classified as secure, who present negative levels of salivary cortisol; the case of children classified as disorganized is even more striking, releasing more cortisol after 15 and 30 minutes than the insecure group (Spangler & Grossmann, 1993). There are studies that have shown that the activation of the attachment system is associated with the activation of the mesocorticolimbic dopaminergic system, a system

that plays a fundamental role in the brain reward mechanisms (Insel & Young 2001; Strathearn et al., 2008) and that it is also associated with a high sensitivity to social signals, reduced stress levels, and lower social avoidance. At the same time, this system has been associated with a relative decrease in arousal and emotional regulation systems, as well as neurocognitive systems related to mentalization (Bartels & Zeki, 2000, 2004; Hurlmann, et al., 2007; Nolte, Bolling, Hudac, Fonagy, Mayes, & Pelphrey, 2013; Satpute & Lieberman, 2006).

As of studies in relation to the neural correlates involved in attachment and mentalization strategies, it has been possible to describe certain behavioral profiles. The individual differences in the use and strength of the attachment activation and deactivation strategies in response to stress (see Table 3) determine three key parameters in the change from controlled to automatic mentalization: a) the threshold at which change happens, 2) the strength of the relationship between stress and activation of controlled and automatic mentalization, 3) the time to recovery from stress with return to controlled mentalization.

Table 3

*Attachment, arousal, and mentalizing*

Attachment strategy	Threshold for switch	Strength of automatic response	Recovery of controlled mentalization
Secure	High	Moderate	Fast
Hyperactivated	Low (hyperresponsive)	Strong	Slow
Deactivated	Relatively high (hyperresponsive, but with failures under increasing stress)	Weak (but moderate to strong under increasing stress)	Relatively fast
Desorganized	Incoherent (hyperresponsive, but often with frantic attempts to downregulate)	Strong	Slow

*Source.* Luyten, Fonagy, Lowyck & Vermote, in Bateman & Fonagy, 2012.

The most *anxious or hyper-activated* attachment strategies will be associated with a lower threshold for the deactivation of controlled mentalization, and it is for this reason that automatic and subcortical systems will have a lower threshold of response to stress. This allows us to explain how the functioning of people who are more hyperactive is in the face of stress: tending to become attached to others in stressful situations, becoming frequently disappointed, since they have a low threshold to deactivate systems associated with controlled mentalization, including those that are involved in judgment and trust towards others (Allen et al., 2008; Luyten et al., 2012).

The most *avoidant* strategies are characterized by a high threshold for the deactivation of the systems involved in controlled mentalization, including those related to judgment and trust in others (Vrticka et al., 2008). It is for this reason that this style can be particularly difficult to distinguish, often leading to pseudomentalization when the systems associated with controlled mentalization have been deactivated. Avoidant or unattached people, when they are under high levels of stress, tend to have difficulties in their strategies of deactivation of attachment, moving towards a strong reactivation of feelings of security, of negative representations of themselves and high levels of stress (Mikulnicer, Dolev, & Shaver, 2004). For this reason, it is more possible to visualize the deficits in mentalization in these subjects, in contexts with high challenges and strong activation of their attachment systems as it can be during the application of the AAI, where typically many demand questions of emotionally charged facts, as the own history of attachment, are included. (Fonagy et al., 1996).

*Disorganized* attachment strategies present difficulties in mentalization and a tendency towards hyper-mentalization (Luyten et al., 2012); failures that are manifested in the use of more avoidant strategies when the anxious / hyperactive ones fail or vice versa, resulting in very marked changes in strategy.

Finally, the strategies inherent to a *secure* attachment are characterized by a capacity for controlled mentalization even in situations of stress as well as by the ability to recover relatively quickly and return to controlled mentalization when it has been deactivated. It is common that they have periods of time when controlled mentalization is not in operation, but the abilities to change from an automatic to a controlled one, to go on mentalizing even in stressful contexts, and to recover quickly from lapses in mentalization are the characteristics of mentalization with a secure attachment. Fredrickson (2004) has called this ability to continue mentalizing even in situations of high stress "broaden and build", as they are situations that reinforce the feelings of security of attachment, personal agency and emotional regulation (Mikulnicer & Shaver, 2007). People with secure attachment, typically have a good ability to explore not only the external world, but also the internal one, which is expressed in a marked creativity, ability to symbolize, ability to change perspectives in their lives and those of others, attend to interests in dreams and fantasies, art and music and the internal world of others in general (Luyten et al., 2012).

In this way, it is possible to identify not only the presence or absence of reflective functioning in parenting and the type of attachment associated with it, but it is also possible to identify its complexity and different levels of functioning of this skill. The complexity and richness of mentalizing is related to the "uniqueness and specificity of the human's subjective experience" (Tiddly Manuals, 2010), which challenges the task of comprehend other people.

It is so that mentalizing may fail and this failures will be varied leading to prementalizing stances (Fonagy et al., 2012). Mentalization difficulties refer to a general lack and difficulty to attend and comprehend mental states and their association with behaviors and situational constraints (Asen & Fonagy, 2012; Tiddly Manuals, 2010).

This leads to establish unpleasant and even destructive interpersonal relationships, because of the lack of understanding that leads to attempts of control others (Asen & Fonagy, 2012). Failures in mentalizing ability may be seen in several concrete attitudes like the following: difficulty in emotion recognition; confusing a feeling with a thought; understanding behavior in concrete terms and external circumstances and not related to the parent-child relationship; difficulty in observing and identifying one's own thoughts and feeling; not recognizing the impact of one's thoughts and feelings and actions to others; not being able to be flexible, specially in the diversity of ways of thinking and perspectives between old and young people; feeling that other's thoughts are dangerous; struggling to relate thoughts to reality, going round in unproductive circles becoming anxious; acting without thinking and avoiding thinking, leading to reactive behaviors towards the child without being aware of his/her mental states; worrying too much about the rules, responsibilities and the duty to be as a parent and of the child; and generally denying being involved in the problem, looking for other culprits for the events (Fonagy et al., 1998; Luyten et al., 2012; Tiddly Manuals, 2010).

On the other hand, an *adequate reflexive functioning* is manifested in the capacity of adults to understand that the relationship with their young children is under construction and that for this reason, they actively seek to understand them. Adults realize that on occasions it is impossible to fully know the mental states of others; that some tasks can be difficult given the differences in perspectives, experiences and emotional and cognitive abilities between children and adults, but even so, they try to imagine how another or a child like theirs should feel, and in this last case, recognizing that their inferences are limited by the same age disparity (Slade, Aber, Berger, Bresgi & Kaplan, 2012; Fonagy et al., 1998).

Regarding the associations among PRF, attachment styles and parenting, the

very first empirical studies in relation to the PFR showed that this parental capacity was closely related to maternal behaviors and secure attachment in children, configuring a protective factor for vulnerability. Mothers that qualified with secure attachment as of the AAI during pregnancy, had higher reflective functioning evaluated with the PDI-FR 10 months after their babies were born, and these children were more frequently qualified with secure attachment (Grienenberger et al., 2005; Slade et al., 2005; Stacks et al., 2014). These same studies found that, on the contrary, low levels of PRF correlated with insecure and disorganized attachments increasing their risk of developing psychopathology and in a sample of low-risk mothers with difficulties in PRF, they tended strongly to interrupt emotional communication with their children and also showed difficulties in regulating emotions such as fear and stress in their children (Grienenberger et al., 2005, Slade et al., 2005). Other studies also related to the exercise of parenting, have found that PRF predicts sensitive behaviors in mothers even in high-risk samples (Rosenblum et al., 2008; Huth-Bocks et al., 2014, Smaling et al., 2016a).

#### ***5.1.4. Factors that influence caregiving system and mentalizing ability***

##### ***Childhood of caregivers and the fact of becoming parents***

We have seen that there are a variety of factors that can influence how the mother's system of care and reflective functioning is configured in relation to her young child. From the evidence about the intergenerational transmission of attachment, reflective functioning and the role of emotional regulation, it is especially important to consider the mother's experience of primary care in her childhood.

Literature has described that an adequate system of care will be configured in this way only if in her childhood, the mother was cared for and did not take care of

herself, other siblings or even her parents (Bretherton & Munholland, 2008; George & Solomon, 2008).

George and Solomon (2008) argued that the care system is very possibly really activated by the *fact of becoming* a parent. This process has been conceptualized as a crisis involving the interaction between different biopsychosocial levels and a large number of thoughts, doubts and concerns of parents about themselves, the other parent, the past and the present and a reorganization of the self (George & Solomon, 2008), the significant decrease in partner satisfaction (Castellano, Velotti, Crowell, & Zavattini, 2014; Christopher, Umemura, Mann, Jacobvitz, & Hazen, 2015), and the reorganization of the couple's relationship (Cox, & Paley, 2003; Favez et al., 2012).

### ***Emotional regulation as parental competence***

A key competence at the base of an adequate care system is *emotional regulation* as parental competence, which also develops in a healthier way in the context of secure attachment (Fonagy & Target, 1997). The literature on the role of attachment in child socio-emotional development is quite conclusive, indicating that this pattern significantly contributes to emotional regulation and thus to the child progressing adequately in the tasks of socio-emotional and cognitive development in accordance to his/her age, as well as that serious aberrations in the establishment of this attachment, significantly contribute to poor mental health of children and adults and to the frustration from achieving the socio-emotional and cognitive development tasks (Cassidy, 1994; Fonagy & Target, 1997; George & Solomon, 2008; Lyons-Ruth, 2000).

As of the assumption that the child needs a significant adult to help him/her move from co-regulation to self-regulation and as of the external recognition of his mental states to self-reflection, it is evident that to the extent in which a child lives in an environment with caregivers with an adequate reflective capacity, it will favor that

he/she develops a viable sense of self, sufficient security to establish trusting relationships with other people and an adequate repertoire of behaviors and, in this way, he/she can establish interpersonal relationships with greater success and better mental health in adulthood (Tiddley Manuals, 2010; see Figures 2 and 3).

Conversely, in an environment in which parents lack the ability to reflect on their mental states and on those of their children, they increase the probabilities that deprive them of developing the ability to build a sense of self able to function with success and to establish satisfactory relationships with other people, possibly affecting their mental health (Fonagy et al., 1998; Fonagy et al., 2004; Jurist, 2010; Tiddly Manuals, 2010) (see Figures 2 and 3).

In this sense, RF and emotional regulation are intimately connected, since emotional regulation also has an important role for the development of the sense of self and agency. That is why it is said that emotional regulation precedes mentalization, since mentalizing requires being able to understand internal experiences (Fonagy et al., 2004) and these early experiences give the baby the opportunity to learn from mental states (Slade, 2005).

### ***Individual characteristics of the child***

It is also possible that there are *individual characteristics of each infant* that facilitate or hinder the exercise of the PRF and the configuration of the care system. Some individual aspects of children and others related to evolutionary aspects that can significantly affect the configuration of this system have been described.

In the first case, the characteristics that put at risk the quality of this system can be, for example temperament, observing that some children have characteristics that tend to elicit positive or unpleasant emotions in their parents (Dix, 1991), health problems (e.g. tracer diseases) or developmental handicaps, which at the same time



configure characteristics that makes them more influentiable by less desirable characteristics of their parents (Floyd, Harter & Costigan, 2004; López, Clifford, Minnes & Ouellette-Kuntz, 2008; McIntyre et al., 2006) .

In the second case, it has been described that babies have the ability to activate care behaviors in caregivers as of birth and this ability goes complexing itself across time. Within a few weeks after birth, the babies, while listening to their mother, regulate each other by means of vocal and gestural expressions. Trevarthen's theory of *intersubjectivity* (1974, 1979, 1998, 2001) ensures that babies show clear preference for human faces (natural sociability) especially of their caregivers, motivating the cooperation of the other in order to ensure their survival and helps to develop trust, communication, meaningful acts and, finally, the development of language (Trevarthen, 2001; Ensink & Mayes, 2010). This ability modifies during time, being able to incorporate objects in the dyadic interaction between the mother and the baby, and later, being able to have knowledge of the mental states of the others, once the conversational and narrative language is installed (Braten & Trevarthen, 2007).

### ***Educational level***

Some studies have found that educational level is a significant predictor of the PRF, as well as of several other parental competencies. Theoretical and empirical literature have argued that educational level is associated with reflective functioning and that, on the contrary, childhood deprivation and trauma are inversely associated with this ability (Ensink et al., 2016; Pajulo et al., 2012; Tamis-LeMonda, Briggs, McClowry, & Snow, 2009).

By its part, Ensink et al. (2016) reported that the educational system, in fact, is also an important part for children, in the sense that the establishment of relationships with their teachers and peers outside their family system, indirectly promotes the

development of RF. On the other hand, but not contrary, there are studies that find mixed results reporting strong correlations between RF and adequate parenting over what the educational levels predict, for example, Rosenblum, McDonough, Sammeroff and Muzik (2008) found that PRF predicted mentalizing comments and sensitive behaviors over that which the educational level predicts.

### ***Trauma and deprivation***

The experiences and histories of trauma and deprivation in the caregiver's childhood have been highlighted as one of the major risk factors for the development of an adequate capacity for mentalization, as well as the fact that an adequate reflective functioning can be a factor for the coping of these experiences (e.g. Fonagy et al., 1991a, 1991b, 1994). For example, these studies have observed that mothers with and without histories of deprivation established secure attachments with their children when they had high levels of PRF and on the contrary, it occurred with those with low reflective functioning. Likewise, it has been reported that child abuse has a negative impact on development in childhood and consequently on child mental health (Ensink, et al., 2015) affecting understanding and emotional regulation, thus influencing emotional regulation and the establishment of relationships with others (Bateman & Fonagy, 2012).

A study conducted by Ensink et al. (2014) evaluated attachment, unresolved trauma and mentalization through AAI, incorporating a new one to assess trauma and mentalization in 100 pregnant women who had histories of abuse and neglect. 63% of them were classified with insecure attachment and close to 50% were classified as unresolved trauma; most of the women showed a deficit in RF related to trauma and this type of RF was significantly lower than the general RF. This suggests that those mothers with histories of abuse and neglect do not necessarily show a general low

reflective functioning, but that their capacity for mentalization collapses specifically with trauma. Likewise, low levels of RF related to trauma in the sample were indicative of a low capacity to incorporate traumatic experiences in their stories in terms of mental states and the absence of positive feelings about the baby and motherhood. Furthermore, low levels of RF related to trauma were associated with difficulties in intimacy.

### ***Environments that elicit the use of mentalization***

All these findings together suggest that caregiver's reflective functioning may buffer the negative effects that adverse environments may have on child's development and relationship between them (Camoirano 2017). This was also posed by Winnicott (1965, 1971) decades ago, arguing that a reflective caregiver who is capable to enter into infant's inner world is also able to maintain distinctions between reality and fantasy in a playful way allowing the child to understand these differences. By the contrary, an adult may invade child's mentalistic activity disrupting "as if" play and imagination and/or misreading child's play (Slade, 2005).

Scientific literature has highlighted that children with a well-developed understanding about the role of emotion in their lives, probably have had caregivers that used to talk with them about emotions in a reflective way, considering what causes them, as well as probably have had caregivers that used to engage in pretend play and storytelling situations. These type of conversations and playing are named as the "building blocks of mindsight"; helping children to gain a deeper understanding about themselves and telling to the child his/her own life story is a helpful way to remember and integrate all events of his/her life (Siegel & Hartzell, 2010).

To summarize, a way to enhance children's mentalizing ability and helping them to make visible and explore their inner world, is through the engagement with them in

discussions and imagination which is possible during pretend play and storytelling on subjective experiences of their own and others.

In addition to the fact that mentalizing ability is related to more reflective and not to stressful stances, literature refers that the use of mental states language and having a reflective stance may occur in certain circumstances. Doan and Wang (2010) conducted a study in which they found that references to cognitions were more related to storytelling situations, and this might be related to the nature of the task that is more cognitive and not emotional. As an example, mentalization-enhancing activities have been described to the mentalization-based family therapy, and similarly to the literature regarding children's mental states understanding, its activities consider pretend play, taking others perspective and storytelling (Asen & Fonagy, 2012).

Although there is no direct evidence regarding the influence of maternal mental states references on children's development of emotional understanding across cultures, storytelling, pretend play and conversations between parents and children may have some influence on this understanding as well as cultural differences and emphasis, that also configure a powerful symbol system (Doan & Wang, 2010; Harwood, Miller & Irizarry, 1995). Concerning this fact there are studies reporting that European American parents stimulate more frequently their children to talk about their thoughts, wishes, desires, and preferences than do other Asian cultures who are more focused on behaviors and moral obligations (Wang, 2001; Wang, Leictman, Davies, 2000), but others refer that American parents prefer cognitive stimulation during play versus Japanese parents that focus more in interpersonal relationships (Greenfield & Suzuki, 1998). In this regard cultural differences may influence children's understanding of mental states language and these differences will lead to different developmental outcomes. Saying this means that a focus on behavioral components in disrepair to

mental states may drive child's attention to these elements hindering the potential emotional understanding (Doan & Wang, 2010; Taumoepeau & Ruffman, 2006, 2008).

On the other hand, it has been studied as of the use of mental language in adults through the observation of adult-child interaction, in contexts of free play, evaluating the comments of the adult in interaction with his/her child that allude to mental states (Shai & Belsky, 2011) and in the context of story reading, also evaluating the content of the adult's discourse (Farkas et al., 2017, Ruffman, Slade, and Crowe, 2002), depending on the ages of the infants.

#### ***5.1.5. The Assessment of Parental Reflective Functioning.***

The study of the PRF has been mainly focused on the knowledge that parents have about the representations and mental states underlying their own and children's behavior (Farkas, Sieverson, Fernández, & Espinoza, under review; Slade, 2005). This has been mainly done through parent's accounts regarding their childhood experiences and those lived with their children, which elicit a variety of mental states.

As it was mentioned at the first part of this theoretical background, a scale was specifically developed for RF's coding using interviews that originally evaluate representations from pregnancy to adulthood; the Adult Attachment Interview (*AAI*; George, Kaplan & Main, 1985), and the Pregnancy Interview (*PI*; Slade, 2003). After this, an Addendum to Reflective Functioning Scoring Manual developed by Slade and cols. (2004) was specifically done for the scoring of Parent Development Interviews (*PDI*; Aber, Slade, Berger, Bresgi & Kaplan, 1985; *PDIR*; Slade, Aber, Berger, Bresgi, & Kaplan, 2003). This system shares the same definition of Reflective Functioning from the authors of the construct, and its structure is identical to the interview developed by them (e.g. Fonagy et al., 1998).

The PDI is a semi-structured interview with 45 items (29 in its short version) that examines caregiver's representations about themselves as parents, their children, and their relationships with them, and similarly to the AAI, it aims to evaluate internal working models of relationships (Slade, 2005). It comprises *permit* and *demand* questions, but only the latter, totalling fifteen questions are coded in order to assess PRF. Through permit questions, adults can demonstrate their PRF, but they are not explicitly required to use mentalizing language, e.g., "Can you describe yourself as a parent?" and "In any given week, what would you describe as that which your child prefers to do, his or her favourite moments?". By its part, demand questions require the adult to explicitly demonstrate his or her PRF ability, which involves reflection on or a consideration of the complexity of mental states that cannot be observed (Fonagy et al., 1998; Slade, 2005; Slade et al., 2004), e.g., "Describe a time in the last week in which you and your child were fully connected and found yourselves in perfect harmony; can you tell me something about these moments? How do you think your child felt?". These interviews have an approximately 45 minutes duration and are recorded, transcribed, and then coded.

This scale consists of a manual developed to code RF with the Adult Attachment Interview (George, Kaplan & Main, 1985) that with authorization of the scale's author has been applied to other kind of interviews (e.g. Bammens et al., 2015; Schechter et al., 2005). This scale considers 4 indicators to assess this ability; a) awareness of the nature of mental states; b) explicit effort to tease out mental states underlying behavior, c) recognition of the developmental aspects of mental states, and d) mental states in relation with the interviewer (Slade et al., 2005). In addition, seven types of poor or absence of reflective functioning are categorized: limited or negative RF; poorly integrated, bizarre, or inappropriate RF; disapproval of RF; distorted or self-referent RF;

naive or simplistic RF; over-analytical or hyper-activated RF; and RF with an excessive focus on personality and behaviour. In a scale of -1 to 9 points, it has been established that 5 is the anchor score, referring to an ordinary PRF. Scores between 3 and 5 are thought to be more common in different populations. People who are able to describe their mental states might be considered reflective (5 or above), conversely those who mention mental states but doesn't reflect about them cannot be considered as reflective (3 or below). It is not enough just mention mental states such as "I think", "I want", "I believe", "I know", "I feel" but caregivers must reflect on them (Fonagy et al., 1998).

The RF-Scale was originally developed in a sample of pregnant middle-class women: each mother's interview was rated by four judges, and each father interview by three (Fonagy et al., 1998). Later, the Reflective Functioning Scoring Manual by Slade and cols. (2004) was specifically developed for the scoring of PDI, interview that allows to analyze and comprehend the reflective functioning of a caregiver about a particular child.

Subsequently, other studies have applied this scale to other interviews with similar goals and structure, including for example the Working Model of the Child Interview (*WMCI*; Schechter et al., 2005) and the Five-Minute Speech Sample (*FMSS-RF*; Adkins, Luyten & Fonagy, under review; Bammens, Adkins & Badger, 2015).

The Five-Minute Speech Sample (*FMSS*; Gottschalk & Gleser, 1969) was developed to assess psychological states through content analysis of verbal behavior, and it has been used to maximize the projective aspects of communication relationship in a way that the speaker tends to evoke internal psychological states rather than other reactions to the interviewer. *FMSS* has been used typically in order to assess Expressed Emotion, which is a term used to describe attitudes and feelings that a relative expresses about a patient (*FMSS-EE*; Magaña, Goldstein, Karno, & Miklowitz, 1986). This type

of interview has been used successfully in several clinical populations, and other coding scales like “Parental warmth” (Pasalich, Dadds, Hawes, & Brennan, 2011), “Parental criticism” (Wamboldt, Wamboldt, & Gavin, 1995), and “Parental Reflective Functioning” (*FMSS-RF*; Adkins, Luyten & Fonagy, under review; Bammens, Adkins & Badger, 2015). The latter was developed in the context of an intervention aimed to improve parenting from adoptive parents, “Family Minds”, based on PDI kind of permit and demand questions (Adkins & Fonagy, in prep.).

Under the same theoretical background, Luyten and colls. (2009) developed a brief and multidimensional self-report questionnaire of 39 assertions that assess Parental Reflective Functioning (*PRFQ*; Luyten Mayes, Sadler, Fonagy, Nicholls, et al., 2009), of which recently its development and initial validation were published (Luyten, Mayes, Nijssens, & Fonagy, 2017). The *PRFQ* has three subscales: pre-mentalizing that captures a non-mentalizing stance and malevolent attributions of the child; certainty about mental states that captures tendency of parents of being overt certain about child’s mental states; and interest and curiosity that captures tendency of parents of thinking about the reasons behind child’s behavior and feelings (Luyten et al., 2017). In this questionnaire, higher scores in pre-mentalizing and certainty subscales indicate lower levels of PRF, being more intrusive, overly certain about child’s mental states and hypermentalizing. On the other side, higher scores in interest and curiosity subscale might reflect intrusiveness and hypermentalizing, as well as low scores might indicate an absence of interest, being that medium scores indicate an adequate level of PRF.

There exists another group of researchers that have conceptualized mentalization much more related to the Mental States Language (e.g. Ruffman & Tamoupeau), which will be described further. They “access” to mentalization through the observation of



parent-child interactions, where the caregiver is invited to interact with his/her child, for example, in an everyday or story-telling situation.

The differences between conceptualizations of the construct have led to differential methods of assessment. In this theoretical approach, caregiver has less control of what might happen compared with assessments using interviews, being possible to evaluate the Mental State Language in several kind of natural situations for the child (e.g. calm or stressful). On the other hand, in the assessment of PRF utilizing interviews, the caregiver makes a conscious choice about the contents to verbalize and it occurs in a protected context having sometimes de opportunity to reflect in their descriptions, as well as reflections (Farkas, Sieverson, Fernández, & Espinoza, under review). Nevertheless, the contents that appear in the interview have been associated to attachment security and insecurity, thus, more unconscious elements.

In fact, studies conducted with the RF-Scale show that representations that parents have of their children have a strong correlation with parental representations of attachment, and parenting behavior (Slade, 2005). Mothers living in low-stress environments have been qualified in average with a score 6, and those living in poverty with a score 4 (Ensink et al., 2016; Grienberger et al., 2005, Slade et al., 2005). It has been found that more secure mothers had higher reflective functioning scores comparing to mothers that were dismissing, preoccupied and unresolved (Katznelson, 2014).

#### ***5.1.6. Constructs similar to Parental Reflective Functioning.***

Parental ability to perceive their children as subjects with mind has been operationalized in several constructs (Camoirano, 2017; Meins, Fernyhough, & Russell, 1998; Sharp & Fonagy, 2008). By its part, the process of these operationalizations has

lead to the development of several measures (e.g., Maternal Mind-mindedness, *MMM*; Meins et al., 2001, 2002, 2003; Maternal Insightfulness; *MI*; Koren-Karie & Oppenheim, 2001, 2013; *Mental State Language*; Ruffman, Slade & Crowe, 2002),

It is worth to distinguish that there are several other concepts that seem similar to reflective functioning. First, *empathy*, which differs from Mentalization in that it focuses on others and on emotional states; *emotional intelligence* differs in that it is characterized more by the disposition to mentalize and, for its part, *insight* differs in that it is the mental content product of mentalization (Allen, Fonagy & Bateman, 2008). On the other hand, there are the similar constructs that have emerged from the context of parenting, such as the Maternal Mind-Mindedness, the Maternal Insightfulness and the References to Mental States, which are detailed below.

### ***Maternal Mind-Mindedness***

The construct was proposed by Meins, Fernyhough, Russell, Clark-Carter (1998) and refers to a more specific parental sensitivity towards the child's mental states and his/her consequent activity. The concept was based on longitudinal investigations in which it was reported that those children with a secure attachment style had mothers more likely to focus on the mental attributes of their children, even more than on their behavioral tendencies, which led them to consider the possibility that the security of attachment can be explained in terms of a specific type of parental sensitivity to mental states, starting to talk about Mind-mentalizing (henceforth MM) (Meins et al., 2001).

The concept speaks of the mother's tendency (mainly mothers have been studied) to treat and interact with her child as an individual with a mind, rather than just an object of care whose needs must be met. Likewise, it supposes the parental sensitivity and the capacity of the adult to understand that the child can have his/her own representations of the world, of him/herself and of others, as well as different

perspectives of reality (Meins, 1997). E. Meins herself later identified that there are five kinds of maternal behaviors in which the MM is manifested, namely, the ability to respond to changes in the direction of the child's gaze; the ability to respond to the child's actions towards an objective; imitation; the promotion of autonomy; and making appropriate comments on the child's mental state (Meins et al., 2002).

It can be said, then, that the MM is a construct that is at the interface between the behavioral and representational operations that the adult makes in the relationship he/she establishes with his/her child and, in the process for to achieve this, caregivers must first form a representation of the child's internal state and then use that representation in his/her relationship with the same child (Meins et al., 2012).

*How it has been studied.* MMM, up to 12 months, is studied from the observation of the mother-baby interaction and later, it is possible to study it with representational evaluations from an interview that is made to the parents in which they are asked to describe their son.

*Its influence on the child's socio-emotional development.* Studies of the influence of MM on the child's development have been focused mainly on the development of the attachment pattern and the theory of mind. Meins found that the presence of MMM was related to the development of the theory of mind in children (Meins et al., 2001) and about these results suggested that the security of attachment and the theory of the child's mind could be explained by individual differences in the MMM (Meins et al., 2012).

### ***Insightfulness***

The concept of insightfulness (Koren-Karie, Oppenheim, Dolev, Sher & Etzion-Carasso, 2002, Oppenheim & Koren-Karie, 2012), like PRF, arises from the work done by clinical psychologists and researchers interested in understanding the father / mother-child relationship and the representations that the same parents have about their children

and is based on the postulates of the theory of attachment. The authors define the construct as the parents' ability to identify the motives at the base of the behaviors and emotional experiences of their children, in a complete, positive and child-centered way and which considers their perspective. Insightfulness assumes the ability of parents to see and feel things from the child's point of view and the central elements that make up this competence are: a) to make insight in relation to the child's motives, b) to have a complex understanding of the emotional life of the child, and c) to have an attitude of openness to the information given by the child and oneself.

*How it has been studied.* Insightfulness is studied through interviews with the adult about the thoughts and affects of the child to see him/herself interacting with his/her child from a filming of both. Specifically, questions are made about the behaviors of his/her children that surprised him/her, that involves them, or that made them happy. At the end, parents are asked to make a list of the main characteristics of their child and that characterize their relationship (Oppenheim & Koren-Karie, 2013).

*Its influence on the child's socio-emotional development.* The construct has been linked to parental sensitivity, the style of child attachment and externalizing and internalizing behaviors in children, reporting, for example, that children with autism spectrum disorders are more likely to have a secure attachment when they have parents with the ability to be insightful (Oppenheim, Koren-Karie, Dolev, & Yirmiya, 2009). Likewise, it has been seen that mothers with a good capacity for insightfulness have more positive interactions with their children (Koren-Karie et al., 2002), which also occurs in children with autism spectrum disorders (Oppenheim et al., 2009, 2012 ). Other studies show that interventions with children with behavioral and emotional problems and with parents with low ability to be insightful, at the end of the intervention the showed improvements in their insightfulness and the children

significantly reduced internalizing and externalizing problems (Oppenheim, Goldsmith, & Koren-Karie, 2004).

### ***Mental State Language***

Mental State references study arises from a more cognitive approach and these studies are also typically conducted with mothers, based on the fact that maternal language has a fundamental role for the development of children's Theory of Mind, and on the findings of longitudinal studies that have shown positive and significant associations between maternal language and children's understanding of beliefs and emotions. The construct refers to the communicative ability to show to the child his/her own mental states (Ruffman et al., 2002).

*How it has been studied.* Ruffman together with his team is the most common author related to the study of Mental State Language. They have assessed maternal use of Mental State Language through mother-child interactions in storytelling situations from stories or images. The Codgin system in order to classify maternal Mental State Language into categories is based on the proposal of Bartsch and Wellman (1995), who differentiated categories of wishes, emotions, cognitions, modulations of assertion, and "other" mental states.

*Its influence on the child's socio-emotional development.* Several studies have shown how mothers modify their references to mental states during children's early years (Ruffman et al., 2002, Taumoepeau & Ruffmann, 2006, 2008). These studies have found that mothers adapt their language according to the child's age and that they tend to talk more about wishes until 15 months, when they begin to increase the use of cognitions and then, already at 24- 33 months, they tend to talk more about cognitions and thoughts than at earlier times. Researches findings show that maternal verbalizations about the internal states of their children are a significant predictor of

social-emotional development and attachment security of the child (eg Ensink, Normandin, Plamondon, Berthelot, & Fonagy, 2016, van Ijzendoorn, 1995, Meins et al., 1998), and that the interactions within the family may facilitate social comprehension in their children, because of the co-operative nature of the conversation that allows the child to internalize the way of thinking through this participation, despite the fact that it might be a passive participation (Tamoepau & Ruffman, 2006, 2008).

## **5.2 The study of Mentalization in Relation to the Socio-emotional Development of Children**

### ***5.2.1. Parental Reflective Function, predictor or modulator variable?***

As it has already been mentioned, the study of parental Mentalization with young children has indicated an association with the styles of attachment, emotional regulation and socio-emotional development of infants (Fonagy, Gergely, & Target, 2007; Fonagy & Target, 2005; Grienberger, Kelly, & Slade, 2005; Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002; Laranjo, Bernier, & Meins, 2008; Slade, Grienberger, Bernbach, Levy, & Locker, 2005; Stacks et al., 2014; van Ijzendoorn, 1995), and the development of the Theory of Mind (Laranjo et al., 2010; Peterson, & Slaughter, 2003; Ruffman, Slade, Devitt, & Crowe, 2006; Tamoepau & Ruffman, 2006, 2008).

From the perspective of development, PRF requires the adult to operationalize the mental states of the baby from an early age, and from the mental states of others, the child will be able to find meaning in his/her own experiences and mental states. (Fonagy, Gergely, & Target, 2007; Fonagy, Gergely, Jurist, & Target, 2004). Early

experiences with others create the opportunity for the baby to build and organize representations of others and him/herself (Slade, 2005).

From birth, parents are recognizing the non-verbal intentions of their babies, the face-to-face interaction between them plays a key role in the development of representations of the baby's affections. (Fonagy et al., 2004; Trevarthen, 1974). This ability of parents to keep a representation of their child in their mind, giving them feelings, wishes and intentions, allows the child to discover his own internal experience through the representation given by the caregiver (Fonagy et al., 2004; Slade, 2005).

Fonagy and Target (2005) proposed that the PRF is the capacity that allows to create a physical and psychological environment conducive to the development of a secure base for your baby. This hypothesis has been proven through the association between reflective functioning, parental sensitivity and secure attachment, and inversely with other attachment styles and maternal behaviors far from sensitivity (Stacks et al., 2014). Thus, a low PRF would be associated with the development of an insecure attachment in the child (Slade, Grienenberger, Bernbach, Levy, & Locker, 2005).

As it has been seen, PRF is related to early attachment experiences and the quality of affective communication with parents (Fonagy et al., 1991, Slade et al., 2005). The child's ability to understand his/her own mental states is related to the attachment style that they form with their caregivers, with parental styles and adult-child communication (Carpendale & Lewis, 2004, Slade et al., 2005).

Despite the fact of the several findings referring to the PRF's direct association to social-emotional development and attachment security, there is a group of studies that points out that PRF's influence over child's variables is not direct but that it has a modulating effect on both infant and parent's variables. Actually, regarding to stress tolerance, Rutherford et al. (2013) found that PRF was associated to a mother's infant

stress tolerance and not to the general stress perceived by mothers. Specifically, parents who manifested high levels of interest and curiosity about their infant's mental states tend to show greater persistence in their behaviors to calm them under stress.

Meanwhile, Wong (2012) refers to the PRF as a moderator of the relationship between maternal depressive symptoms and parenting, acknowledging that higher depressive symptoms accompanied with higher levels of PRF are related with better parenting, which is not the case in mothers with higher depressive symptoms with lower levels of PRF.

These findings show that the ability to think in a reflective way about oneself and the child can be a protective factor for a child's development, due to the fact that more reflective mothers could better cope with difficult situations and this would enhance their parenting behaviors. It has been established that the ability of being able to reflect about their own and their infant's mental states allows parents to respond in a more sensitive way to the needs of the child (Fonagy et al., 1991). In caregiver-child relationships both members influence each other on the basis of individual and environmental characteristics, being constantly adapting to each other and to the environment. This is why it is said that parenting considers several challenges that need a constant adjustment also from both members and context (Dix, 2000).

### **5.3 Parenting with Children in Preschool age and their Socio-emotional Development**

The theoretical and scientific literature of the life cycle has highlighted several periods of development that are characterized by various transformations that deserve to be addressed and even in some cases intervened for their better resolution. The



preschool period entails great transformations for parents and children and the history and quality of the relationship they establish between them is fundamental for coping with the changes.

In this sense, there is a growing need to understand the transformations inherent to preschool age, given the high levels of demand they impose. At this age, children have developed autonomy and communication through communicative and narrative language (Cicchetti, 1990, Tirapu, Pérez, Erektxo & Pelegrín, 2007). This advance in their cognitive development and the incorporation of linguistic and emotional tools as communication and regulation strategies, supposes that parents deal with their attempts of greater autonomy and competence and at the same time establish limits and norms in a clear and firm way (Baumrind, 1991; Cicchetti, 1990). Thus at this stage the child's behaviors are specified and made more complex according to the family environment in which they find themselves (Crittenden, 2005; Steele & Steele, 2005).

For the above processes to occur successfully, it is desirable that the family configure a safe space for the child and provide him/her comfort, as they will learn to express themselves appropriately in words, to modulate their responses and to recognize that others may have different perspectives to their own. Sroufe (1983 cit. In Cicchetti, 1990) reports that the quality of the adaptation shown by preschoolers is largely influenced by how parents have handled the impulses and feelings that they have exhibited during the transition between childhood and the preschool period, as well as the care at birth. Hence, Mentalization is key when it comes to referring to transformation and adaptive processes, which in the case of preschoolers, the work done by their significant adults is fundamental for the passage from hetero-regulation to self-regulation (Fonagy et al., 2004; Gergely & Watson, 1996). In effect, it has been described that the most important extrinsic factor for developing self-regulation is the

quality of the relationship established with the main caregivers (Cassidy, 1994). As the child grows, the expectations that parents have about their child's behavior increases, so that they adjust to certain standards and norms, and these ideally adjust to the characteristics of that child. However, it is possible that the expectations of the parents do not adjust to the competences of their children, increasing the stress perceived by adults as a result of the characteristics of the same child (Zarate, Montero & Gutiérrez, 2006).

It has also been described that those parents prone to negative emotional states such as depression, irritability or anger, tend to behave less sensitively, less responsively and more harshly with their children (Belsky, 2005). On the contrary, when adults tend to express positive emotions and enjoy interpersonal relationships, they tend to be emotionally more sensitive, responsive and motivating (Belsky, Crnic, & Woorworth, 1995; Belsky, Jaffee, Sligo, Woodward, & Silva, 2005).

Belsky (1984) argued that parenting is determined by a variety of factors and that the weakness or strength of the parents was not enough to determine how they behaved as parents, but rather it is the accumulation of tensions versus support, that is, contextual risk or protective factors that are more determinant in children's upbringing.

### ***Environmental factors and Parental Stress***

Several studies have concluded that socioeconomic level is an important factor that significantly impacts on parenting in general as well as on levels of parental stress in all types of societies, observing that the higher the poverty levels, the greater the stress perceived by parents, (Belsky Bell, Bradley, Stallard, & Stewart-Brown, 2006; McLoyd, 1990,1998; Zarate, 2006). In fact, the literature has been specific in describing abuse as an ecological fact, which is a symptom of an extreme alteration of the child's

upbringing and that is aggravated by other factors such as poverty, lack of education and mental health problems inside the family (Papalia et al., 2010).

As for the available scientific literature, the one that relates these variables in families with preschool children of various socioeconomic levels and ethnic groups is scarcer (Bost, Vaughn, Washington, Cielinski, & Brandbard, 1998). Nevertheless, the harmful effects of parental stress have been described in earlier stages and these findings may also apply to older children or can exert an accumulative impact in their future. Evidence suggests that children living in environments characterized by poor mental health, psychosocial risk, poverty, substance abuse, interfamilial violence, are factors that also lead to a decrease in several aspects of development (Evans, Li & Whipple, 2013).

In our country, several related studies have been carried out indicating that those families that present numerous problems and stress factors, in one end the multi-problem families, tend to present major problems in the exercise of parenting in general and to abandon their parental functions (Gómez et al., 2007; Gómez, Cifuentes & Sieverson, 2010) in the various support networks and services that are mostly provided to them free of charge (Gómez et al., 2010; Gómez & Kotliarenco, 2010; Santelices et al., 2012).

Parental stress, regarding parenting and child's characteristics, has been described as one of the factors that may have strong influence in an adult's deployment of his/her abilities as a parent (Mistry, Stevens, Sareen, De Vogli, Halfo et al., 2007; Gershoff, Raver, Aber & Lennon, 2007; Long, Gurka & Blackman, 2008). While there are normal amounts of stress related to parenting and developmental transformations (Sandin, 2003), there are amounts of it that could be more harmful for the dyad,

especially by decreasing other parental abilities and parenting itself (Cooper, Masi & Vik, 2009; Cyr, Euser, Bakermans-Kranenburg & Van IJzendoorn, 2010).

Indeed, it is perhaps evident that those families living in a context of greater psychosocial stress face greater challenges related to parenting, but in addition, research results have also shown that parenting might be a partial mediator between the effects of living in poverty and the general health of the child (Belsky et al., 2006), and that those parents who receive and perceive sufficient social support, as well as greater security in attachment, tend to have better relationships with their children and tools to do it (Abidin, 1992; Green, Furrer & McAllister, 2007; Rholes, Simpson, Blakely, Lanigan & Allen, 1997).

Results of a longitudinal study with a representative sample of Chilean children (N=10.958) showed that 78.3% of children have a normal amount of social-emotional difficulties, 10.9% are in the risk zone, and the 10.8% have difficulties that are clinically significant. However, disaggregating these percentages by social-economical levels, there are significant differences between them: there are more children at risk and with clinically significant difficulties in lower SEL and children with parents younger than 25 years old (Centro de Microdatos, 2010).

Due to the fact that social-emotional development in young children does not occur isolated from the relational context, parental abilities and behaviors become relevant (Greenspan et al., 2001). Several authors have described a series of parental competencies in addition to the ability to establish a secure attachment and reflective functioning. Below are three models of wide application in the clinical and research field: Ainsworth's Maternal Sensitivity (1978), the Emotional Availability proposed by Biringen & Robinson (1991), and the model of parental interactions of Roggman and cols. (2008, 2013), which is the model used in this study.

### *Maternal Sensitivity*

Maternal sensitivity (now applied to other caregivers like fathers) is a generic construct that covers a wide range of parental behaviors (Belsky, Rosenberger, & Crnic, 1995) and that has been defined from multiple criteria. However, it is in the theory of attachment that it has found greater consensus and its definition of greater adherence, since Mary Ainsworth and collaborators (1978) consider it an essential component that explains the individual differences between the different attachment patterns, understanding it as the adult's ability to perceive, determine and respond appropriately to the signals of the child who needs protection and comfort (Claussen & Crittenden, 2000).

Sensitivity is a dyadic rather than interpersonal construct, because it depends on the characteristics of both members of the dyad and not only on the capacities of the adult. Thus, the sensitivity of the caregiver is influenced both by his/her own characteristics and those of the child (Belsky & Isabella, 1988) the same caregiver being able, at one extreme, to present different sensitivities with each child. Likewise, sensitivity can be influenced by the child's abilities to manifest his/her needs, which facilitates the display of sensitivity with this type of children (Claussen & Crittenden, 2000).

*Characteristics.* Parental sensibility encompasses not only the ability to read and interpret the child's signs of need, since a parent can correctly interpret the signals of his/her child, but may respond inadequately (Claussen & Crittenden, 2000). In effect, the capacity for parental sensitivity goes beyond the basic motivations of adults for the care of their children and also refers to the forms of contingent and pertinent response. This way of responding to infant signals is organized by certain underlying processes

that indicate how parents put parental priorities in order, interpret events and react to their children (Dix, 2000).

On the other hand, this competence is also influenced by the characteristics of the environment, because caregivers, while being sensitive to the child, must be sensitive to the context to which they must adapt. This means that sensitivity is that capacity that adults deploy to mediate between the environment, their personal characteristics and the unique characteristics of the child. (Biringen, Derscheid, Vliegen, Closson, & Easterbrooks, 2014).

*How it has been studied.* Parental sensitivity is operationalized in the interaction with the child and this is why it has been studied from the observation of the caregiver-child interaction, mainly in mothers. The interactions that are commonly observed are free play, daily interactions such as changing diapers and feeding and in laboratory situations through the strange situation (Ainsworth et al., 1998; Crittenden, 1979-2004; Pederson & Morgan, 1995; Santelices et al., 2012). The forms of evaluation that have been designed are typically grids to encode the quality of maternal behavior according to certain aspects of the sensitivity that can be observed in the maternal response (Biringen, Robinson & Emde, 1998; Crittenden, 1979-2004; Santelices et al., 2012).

*Its influence on the child's socio-emotional development.* There is vast literature that deals with the influence of sensitivity on the socio-emotional development of children, on the relationship established with their main caregiver, as well as on the factors that determine the quality of sensitivity. Ainsworth (1978) observed that the fact that the adult responds adequately to the needs of the child is crucial for the representation that the child makes of his protective figure and of his environment. Closely related to patterns of attachment and the conformation of the Internal Working Models, depending on the quality of the caregivers' responses to the child's signals, each

child will configure a representation of his/her environment that goes from the most secure to the most insecure, from the most predictable to the most unpredictable (Fonagy, Gergely, Jurist, & Target, 2004), which will directly influence the behavioral repertoire of the same child.

Despite the findings regarding the role of PRF in the intergenerational transmission of attachment and the configuration of secure attachment, literature has described that experiences of adequate parental sensitivity promote a secure bond of attachment and contribute to the development of a viable and positive sense of self in the child (Braungart-Rieker, Garwood, Powers & Wang, 2001, Cassidy, 1994). Thus, to the extent that the child develops a positive sense of self and a representation of his/her caregivers and the world as responsive and predictable, he/she will develop a consistent behavioral repertoire, displaying prosocial and more adaptive behaviors.

On the other hand, numerous interventions have been developed to promote parental sensitivity (Bakermans-Kranenburg, IJzendoorn, & Juffer, 2003), as a vehicle for forming a secure attachment pattern, as the mechanism through which quality of the care that the adults give their children is transmitted (Dozier & Bernard, 2009).

### ***Emotional Availability***

The construct was raised by Zeynep Biringen (1991), mainly based on the theory of attachment and postulates of Ainsworth et al. (1978) and it refers to a capacity of the dyad to maintain a relationship that shares a healthy emotionality. In part, it is argued that EA is broader than what is proposed by the attachment theory since it includes the emotional and dyadic aspects and allows to observe the child's contribution in the relational interaction, assuming that the child can be different from what the adult manifests by his/her behavior (Biringen et al., 2014).

A basic postulate of this construct is that the relationship established by a caregiver with his / her young child, for whatever reason, is not the fault or responsibility of the caregiver; even as parents, there is a part of what the infant is and how he/she interacts and reacts that is part of his/her own history and that may not relate to the caregiver but somehow includes all the people close to the child (Biringen, 2009).

*Characteristics.* It is a multidimensional and dyadic construct, but it considers dimensions of the adult and the child. In the adult, it distinguishes 4 dimensions; adult sensitivity, structuring; non-intrusiveness, non-hostility, and in the child it recognizes the child's responsiveness and the adult's involvement (Biringen, 2008). In this same sense, Emde defines it as "an individual's emotional responsiveness and 'attunement' to another's needs and goals; key is the acceptance of a wide range of emotions rather than responsiveness solely to distress" (Emde, 1980, p. 80), a definition that allows to establish the difference from the construct of attachment and other parental competences described.

*How it has been studied.* EA, in addition to a construct, consists of a system for evaluating the relationship, rather than a system for evaluating the behavior of individuals in interaction. A wide range of ages can be evaluated, from 0 to 14 years of age. The relationships that are evaluated and examined as soon as each member of the dyad emotionally affects the other (Biringen 2014, Biringen, 2008). Another important aspect is that when evaluating the relationship, it evaluates it in its current moment, avoiding to blame the protagonists and promoting analyzing the perspectives of both members of the dyad. EA is studied from the filming of interactions between caregivers and their babies, filming during real-life, everyday situations or clinical settings, which are then coded by certified professionals (Biringen, 2009).



*Its influence on social-emotional development.* Studies related to EA have described that this competence favors children's emotional regulation and young children's expression of pain, sleep state regulation considering the child's own characteristics, social and language development, and it is a good predictor of the child's attachment pattern and representations of caregivers' attachment (Biringen et al., 2014).

### ***Developmental Parenting***

This construct was more recently raised by Roggman et al. (2008) referring to the parenting that promotes children's development, which recognizes that parenting is not innate but develops over time and that parents may need help to develop it. It is a resource-centered approach, that is, it recognizes and promotes parents' capacities of and provides the necessary assistance to face difficulties (Zero to three, 2002).

*Characteristics.* Developmental parenting promotes the development of the child through four types of behavior: affection, responsiveness, encouragement, and teaching. Affect refers to warmth, physical closeness, and positive expressions towards the child. Responsiveness refers to responses that the caregiver gives to the child's cues, emotions, words, interests, and behaviors. Encouragement refers to the active support of exploration, effort, skills manifested for the child, initiative, curiosity, creativity, and play. Teaching refers to shared conversations between parent and child, cognitive stimulation, explanations, and questions to the child.

*How it has been evaluated.* Roggman et al. (2013) developed an observational instrument from and for use in home visits, which allows to describe the 4 dimensions described for developmental parenting. Parenting Interactions with Children: Checklist of Observations Linked to Outcomes (PICCOLO; Roggman et al., 2013) was developed in a sample of caregivers of diverse ethnic groups and thus also the group of expert coders. The application of the scale is made to a direct observation in home visit or,

commonly interactions of 5-10 minutes of free play between the caregiver and their child, which are previously filmed, are evaluated..

*Its influence on socio-emotional development.* These kinds of behavior are important and scientific literature has revealed it. *Affection* is important because it is shown that it promotes less antisocial behavior, better adjustment to environments, more compliance, greater cognitive abilities, and more school readiness (Belsky, Bell, Bradley, Stallard, & Stewart-Brown, 2006; Caspi, et al. 2004; Dodici, Draper, & Peterson 2003; Petrill & Deater-Deckard, 2004; Sroufe, Egeland, & Kreutzer, 1990). *Responsiveness* has been highlighted because it has been related to more secure attachments, better cognitive and social development, better language development, fewer behavioral problems, and better emotion regulation and empathy (Ainsworth, Blehar, Waters, & Wall, 1978; Davidov & Grusec, 2006; Hastings & Miller, 2014; Landry, Swank, Assel, Smith, & Vellet, 2001; Tamis-LeMonda, Bornstein, & Baumwell, 2001). *Encouragement* is important for a child's development because it is associated to less negativity, willingness to try challenging tasks, better cognitive and social development, and better language development (Ispa et al., 2004; Kelly, Slade & Grienenberger, 2005;). Finally, *Teaching* is an important parenting behavior because it betters cognitive and social development, betters language development, fosters more conversational abilities, and is related to more emergent literacy skills (Baumwell, Tamis-LeMonda, & Bornstein, 1997; Hart & Risley, 1995; Hockenberger et al., 1999; Laasko et al., 1999; Mundy & Newell, 2007; Slade, 1987; Tamis-LeMonda et al., 2001).

### ***5.3.1. Parenting tasks with preschool children in relation to PRF***

Although various tasks of the parents of preschool children can be described, it is worth mentioning some that are the most relevant tasks for present and future socio-emotional development and mental health which are also closely related to the exercise of PRF.

#### ***Emotional Regulation***

Emotional regulation in its broadest definition refers to any strategy aimed at maintaining, increasing or suppressing an affective state in progress, that is, the deployment of a series of extrinsic and intrinsic processes with the aim of controlling, evaluating and/or modifying emotional reactions, especially their intensity and temporality (Thompson, 1994). Regulation learning begins at an early age and depends largely on how caregivers evaluate and modulate affective states of their babies ("affect-mirroring") (Gergely & Watson, 1996). In fact, it has been described that the baby first learns the dispositional content of emotional expression when observing the consequences that his/her own emotional expression has on others; and, it is from these experiences, that at the end of the first year he/she can create representations about those same affects (Fonagy et al., 2004).

It has been described that emotional regulation is related to the regulation of the self and that it plays an important role in the process in which a child moves from co-regulation to emotional self-regulation, a process in which the emotional co-regulation carried out by their caregivers is fundamental (Gosling & Taylor, 1982; Jurist, 1998; Stocker & Hegeman, 1996 in: Fonagy, Gergely, Jurist & Target, 2004); that which is related to the processes of co-regulation and self-regulation is a permanent interaction between intrinsic factors (usually innate, such as temperament, cognitive abilities and the neural and physiological system) and extrinsic factors (such as parental

socialization) of emotional regulation that the baby begins to develop in interaction with his/her caregiver (Fox, Calkins & Bell, 1994).

The findings of studies in infants and young children have described that a newborn expresses him/herself emotionally through vocal and facial signals and that he/she is reactive to both internal and external stimuli and it is this reactivity that allows us to learn about some relatively stable characteristics of the baby. Although this reactivity does not have the complexity or range of emotional responses of later ages, the expression is emotional and the experience of a baby or an adult is subjective and visceral (Fox & Calkins, 2003). It is as of this emotional experience, plus the cognitive development and co-regulation of his/her environment, that he/she will increase his/her capacity to control or modulate his/her emotional states.

The most important extrinsic factor and the one that has been most described in emotional regulation in children is the relationship they establish with their significant adults (Cassidy, 1994). As babies grow older, adults increase the behavioral expectations they have about their children, so that they behave more closely to certain social norms and standards; these expectations in turn are influenced by the child's intrinsic factor, such as temperament (Bornstein, 2013).

In this way, an adequate response from an adult can be qualified as such according to his "goodness of fit", that is, that the adequacy of the response of the caregiver will also depend on the ability of the same adult to accurately capture the thoughts, wishes, intentions and emotions of the child and it is so that he/she can provide the support he/she needs to regulate his/her emotions (Lyons-Ruth, 2000).

The task of co-regulation can be challenging and therefore, it is not exempt from difficulties and failures, since it is impossible to fully know the mind of the other and respond in an adequate way permanently. Authors like Lyons-Ruth (2000, 2008)

describe the possible behavior that leads to more severe failures in the regulation that the adult makes, namely, frightening behaviors, withdrawal responses, negative or intrusive responses, role confusion responses in which the adult introduces his/her own need for care as competing with the child, disoriented responses and emotional communication errors as with contradictory signals to the child. Although not all parents will behave in these ways, all caregivers will fail and miscoordinate with their children. Indeed, several studies indicate that good enough parents are those who do repair failures, like it was described in Tronick studies (1989, 2007, 2011), describing the key developmental role of miscoordinations, and a large amount of studies agreeing that the ability to repair the adult is a key factor for the exercise of parenting in general and emotional regulation in specific (e.g. Biringen, 2009; Spitz, 1965; Tronick, 2007; Winnicott, 1953).

On the contrary, the scientific literature has been emphatic in mentioning that low levels of emotional and cognitive regulation are associated with high risks of child maltreatment and, in turn, high levels of emotional and cognitive regulation are associated with more sensitive parenting (Crandall, Deater-Deckard, & Riley, 2015). In effect, these caregivers use the ability to perceive, respond and flexibilize in the relationship with children in situations of children's behaviors that are especially challenging (Barret, & Fleming, 2011).

### ***Theory of mind***

This construct was raised by Premack and Woodruff (1978) from the study with chimpanzees, describing the ability to attribute mental states to oneself and others. It refers to a cognitive ability, which is not only human, to understand and predict the behavior of others, being able to attribute intentions to them.

In terms of the children's socioemotional development tasks, this capacity manifests itself between the age of 3 and 5, however its development begins and depends on the experiences since birth (Premack & Woodruff, 1978; Premack & Premack, 1995). As previously described, at around 3 years of age and once the conversational and narrative language is installed, children begin to relate to other people from a more objectified and distanced knowledge, being able to understand and predict the behaviors of others, which is called Theory of Mind (hereinafter ToM) (Braten & Trevarthen, 2007).

The ToM is considered one of the most important skills to develop during the preschool stage, since it allows to understand how the world works and social cues, that others have thoughts different from their own and that are not necessarily known, but can be secret and that both themselves and others, have intentions at the base of their behavior (Tirapu-Ustárrroz, Pérez-Sayes, Erekatxo-Bilbao & Pelegrín-Valero, 2007). The skill unfolds during these years both as a result of brain and language maturation, as well as the development of other meta-cognitive skills such as the interpretation of basic emotions, capturing metaphors, lies or irony and interpreting more complex social emotions from facial expressions, social cognition and empathy (Tirapu-Ustárrroz et al., 2007). By the end of school age, children have generally already developed a refined understanding of the thoughts and behaviors of others and of themselves (Baron-Cohen, 1995).

There are different theoretical lines that explain its development and key role in the development of other fundamental skills in adult life, such as mentalization: one of them refers to the fact that this ability emerges as a result of brain maturation and of one's own experience and development (Wimmer & Perner, 1983), another suggests that it is a genetically determined innate capacity, which is found in a brain structure and

that is activated by stimuli from the environment in the course of maturation (Scholl & Leslie, 2001) and, finally, another of them comprises the ToM as a social competence (Premack & Premack, 1995).

### *Attendance to Kindergarten*

In Chile, 50.9% of children under 5 attend preschool education (Ministerio de Planificación, 2011), there being a great difference between those under 3 and those between 4 and 5. At 4 and 5 years of age, 82.8% of children attend preschool education, this percentage being slightly lower in the lowest quintile. According to the National Survey of Early Childhood (ENPI, for its acronym in Spanish, 2010), 27.4% attend public establishments, the majority being of medium and low socioeconomic level and staying on average 8 hours in the establishments and the main reasons given by parents to enroll their children in these establishments are because there they learn to share with other children (24%), because the mother or father works (23%) and because they can receive specialized stimulation (19%).

Indeed, from an early age children show interest in other children and what they do, but between a year and a half and three years this interest increases considerably (Eckerman, Davis & Widow, 1989), they learn from mutual imitation and cooperative activity (Brownell, Ramani & Zervas, 2006). In this regard, this type of formal care network for parents can favor parents' competences, especially those with more anxious styles and the contrary would occur with those with avoidant styles (Green, Ferrer & McAllister, 2007). However, added to this is that the effect produced by child care will depend on other variables that make it quite more complex as are the individual characteristics of each child and about the center, type, quantity, quality, stability, starting age and the reasons for this, the level of economic income of the family, among others (Friedman & Boyle, 2008, Papalia et al., 2010). Despite the complexity of the

influence of care systems, it has been described that the most important element to refer to the quality of care is the caregiver him/herself, which speaks of stimulating interactions with sensitive adults (Papalia et al., 2010) and little staff turnover given the stability needed for healthy care bonds (Shonkoff & Phillips, 2000).

## **5.4 Interventions focused on caregiver-child relationship**

### ***5.4.1. Mentalization-based interventions***

Early interventions are a provision of support to families of young children who are part of formal and informal networks that directly and indirectly impact on parental, family and child functioning (Dunst, 1985; 1988; 1993; 1994). This type of intervention arises from advances in neuroscience, knowledge about child development in general and the enormous influence of early bonds in the child's development itself (Shonkoff & Meisels, 2000); they configure a solution to the considerable increase and appearance of psychopathology (Fonagy, 1998), they are effective and efficient in reducing maternal symptomatology and strengthening a secure attachment (Bakermans-kranenburg et al., 2003; Juffer et al., 2005), they are cost-effective and usually short and focal (Heckman, 2008; Stern, 1997) and, more importantly, they operate in a sensitive period (Schorre, 2001).

More specifically, interventions based on mentalization emerge as a response to other strategies based on behavioral and psychoeducational aspects, and also arise as a response to the findings that indicate that the PRF would have a fundamental role in the intergenerational transmission of attachment, in the sensitive response and exercise of parenting (Camoirano, 2017). Likewise, interventions are developed based on mentalization given the clinical evidence that suggests that weakness in reflective



functioning may explain the limited success of traditional psychotherapy in patients with histories of trauma, abuse, substance abuse, borderline personality, behavioral problems in teenagers. People with a low reflective capacity manifest a weak sense of their subjectivity, which also makes it difficult to work in psychotherapy as they can not distinguish what comes from their perceptions and that which comes from the therapist's mind (Ensink & Mayes, 2010).

Mentalization-based interventions are usually clinical, brief and focused on affects and mental states, and promote that the adult is able to see and understand the child in terms of mental states (Asen & Fonagy, 2012).

Many of them have been implemented in contexts of high psychosocial risk and deprivation and/or problematic substance use (e.g. Schechter et al., 2005; Suchamn et al., 2010). Fewer have been developed in contexts with general population and are preventive (Santelices et al., 2016). The following is a description of some of them that have results.

### ***1. Minding the Baby (MTB; Sadler et al., 2006; Slade, Sadler & Mayes, 2005).***

It is a program of home visits for new parents who live in contexts of psychosocial risk, history of trauma and deprivation, intervening from pregnancy to 2 years of the infant. It has an interdisciplinary approach and promotes safe attachment, PRF, physical and mental health and self-efficacy in parents and its goal is to encourage mothers to keep their babies and themselves "in mind".

The intervention is performed by a nurse practitioner and a social worker and through an intervention characterized by containment, attunement and acceptance, they help the mother be more aware of her mental states, being the therapist who must mentalize the mother in this first stage and in this way, he/she helps the mother to

reflect on her own mental states, and at the same time, provides a model for her to mentalize her baby.

MTB promotes that mothers recognize their babies, know that their babies have a body and a mind of their own and that on this basis they learn to tolerate and regulate the mental states of their child.

*Results.* Those mothers who have received the intervention are more likely to attend the immunization schedules at 12 months and are less concerned with social services for child protection. The intervention has shown that adolescent mother-child relationships are less interfered with and that all babies of the intervention tend to have a more secure attachment and less tendency to a disorganized one. This same study with a small sample (N =75) with intervention group and control group of primiparous mothers, reported that the PRF has a significant improvement at 24 months of intervention, as well as the mother-child interaction at 4 and 12 months (Sadler et al., 2013). Another follow-up study, also with a small sample (N =25) that had been part of previous studies in control and experimental group, showed that the level of PRF evaluated in pregnancy was a significant predictor of the level when children were 2 and between 3-5 years old, even considering the passage of time, and it was observed that there was a tendency towards improvement in the PRF in those mothers who attended the intervention compared to those who had not done so ( $\chi^2= 2.986$ , Wald CI [-1.195–0.075],  $p=.084$ ) (Ordway et al., 2014).

## **2. *Family Minds* (FM; Bammens, Adkins, & Badger, 2015).**

It is an individual psychoeducational intervention based on mentalization designed for adoptive parents and foster families that consists of a 9-hour training divided into 3 sessions that are held separated by several sessions, so that adults can put their learning into practice. The main objective of FM is to foster the mentalizing

capacity of caregivers and the specific objectives are that caregivers can regulate and understand their own mental states and those of other family members, promote therapeutic interaction between parents and their children, and initiate activities inside the family that reinforce reflective functioning. In addition, the program encourages parents to increase their knowledge about attachment and development, including activities, role-play and tasks.

*Results.* Just a single study has been published with results of this recent intervention with a small sample (N =30) that includes a control and experimental group, and the current year a RCT is performed without preliminary results yet. The published study compares the FM program with the usual treatment received by adoptive parents and foster families in Texas, USA, which is not based on mentalization.

The results of Bammens and colls. (2015) indicate that 47% of parents in the FM group increased if the PRF level changed from a higher category (from 4 to 5 or 6, or from 5 to 6 or 7 in the RF Scale), 6% increased their PRF in more than two levels, the remaining 41% kept their PRF level generally level 5, and 6% decreased their FRP level. In the control group, however, no parent increased his/her PRF level, 85% remained the same, the remaining 15% decreased their FRP. In this study, the effect of the type of intervention was controlled through blind coding for fidelity to the design of the intervention sessions in both groups, with differences only in terms of content related to the PRF, which confirms that only the group had received training in PRF.

***3. Residential treatment program for substance abusing pregnant women*** (Pajulo et al., 2006). Intervention based on the relationship in residences of mothers with substance dependence, since pregnancy. This intervention, in addition to helping abstinence in the mother, aims to improve the mentalization capacity of mothers about

themselves, their children and the relationship they have with them, that is, helping the mother keep in mind the baby and her relationship with the baby (Winnicott, 1953). One of the strategies used is Videofeedback, as a way to improve the PRF. This intervention is daily for 6 months, starting in the third trimester of pregnancy; it is carried out by a team made up of social workers, psychologists, counselors and occupational therapists.

*Results.* The results of a sample of N =32 mothers indicate that prenatal PRF levels were low (M =2.4; SD =1.3) and so were the postnatal scores (M =3.0, DS =1.0), although in general, the mothers improve, observing that in the initial prenatal measurement, only 1 mother had a PRF category "close to ordinary" and in the subsequent evaluation, 9 of them had a "close to ordinary" category, meaning that 63% of the mothers improved their PRF level. This study showed that those that showed alcohol abuse and more severe posttraumatic experiences were those that showed a lower increase in reflective functioning. Likewise, those mothers who had the lowest pregnancy and post-partum PRF were those whose children were placed in foster care (Pajulo et al., 2012).

#### ***4. Mother and Toddler Program (MTP; Suchman et al., 2008, 2010).***

It is an individual therapy based on attachment, of 12 weekly sessions, designed for mothers who are in treatment for substance abuse and who have children between 0 and 36 months old. Its main objective is to promote the sensitivity and responsiveness of mothers to the signals of their children, through the establishment of the therapeutic alliance, promoting in them the ability to mentalize about stressful situations related to parenting and dealing with mental representations of the child and the relationship they have with him. This intervention also uses Videofeedback as one of its strategies to promote mentalization.

*Results.* The first published study (Suchman et al., 2008), which configures a pilot study with a small sample of mothers (N = 8) and an individual intervention of 12-20 weekly sessions, found that the mothers showed a moderate improvement in the representative balance that was statistically significant, improvements in their reflective functioning (M1 = 3.38, DS1 = 0.96, M2 = 3.91, DS2 = 0.55), and improvement in behaviors with their children that were not statistically significant. This study proposes the PRF as the mechanism of change, indicating a partial mediating effect ( $\Delta R^2 = .19$ ) in those mothers who managed to complete the treatment, given the significant association between the improvement in the representational balance with the PRF and the maternal behavior.

In the findings of other studies there are two dimensions of the PRF that are robustly configured have been encountered, it is thus possible to distinguish between mentalization focused in itself and another one focused on the child and that those children with mothers with greater RF focused on the child tend to show clearer signals towards their mothers and more frequently. The effect of the intervention is similar to the previous ones, indicating that as the RF focused on itself increases, the scores in the indicators of maternal behaviors improve, but it was not correlated with the general response to stress (Suchman et al., 2010). The findings of MTP show that those mothers who attend the intervention tend to improve the capacity of mentalization about themselves and not about their children, and 6 weeks after the intervention there are significant improvements in the behaviors with their children; which is consistent with the objective of the intervention about the difficulties for the regulation of their own mental states and the effect that this has on their children. In a later study it was found that of all the components of the intervention, the therapist's mentalization capacity was

the only factor that influenced the change in the mothers' mentalization and the improvement in the parental behaviors. (Suchman et al., 2011; Suchman et al., 2012).

##### **5. *New Beginnings*** (Baradon, 2006; 2008).

It is a manualized group intervention (N = 6) specially designed for mothers who are prisoners with their young children and is based on the model developed at the Anna Freud Center, piloted between 2004 and 2005 and the pilot study is the first published study. *New Beginnings* is an intervention based on learning and experience to foster the early bond of attachment of mothers with their babies in prison and aims to promote the mother's attunement to the needs and individuality of her baby, through fostering the PRF. It takes 8 weekly sessions of 2 hours each.

*Results.* The pilot study (N = 15) (Baradon et al., 2008) showed that mothers improve their PRF significantly (M1 = 2.7, DS1 = 0.88, M2 = 3.4, DS2 = 1.1): at first they tended to describe their children and themselves in idealistic and stereotyped terms, with some cases described as trying to be good mothers and with concrete examples. A common factor in all of them was the reference to the guilt about depriving their children of a normal life, but without being able to specify how they would be specifically affected by living in prison. After the intervention, they were better able to reflect freely on how their emotions and behaviors could affect their children. An RCT performed in a similar sample (Sleed et al., 2013) in a representative sample (N = 163) and with three evaluations (pre-, post-intervention and follow-up) found that the PRF was similar to other studies with general samples and that it increased significantly after the intervention compared to the control group (MI = 3.18, DSI = 1.28, M2 = 3.54, DS2 = 1.57). This study also statistically reported changes in the intervention group on parental behaviors and the relationship between mother and baby.

#### ***5.4.2. Interventions with Videofeedback***

For decades, Videofeedback has been implemented as a strategy to promote Parental Sensitivity and in a lesser extent to enhance parental Mentalization. It uses feedback through videos, and has been shown to be useful for intervention approaches aimed at improving the quality of caregiver-child interaction and those aimed at strengthening the ability of parents to see their children in terms of mental states (Allen & Fonagy, 2006).

There is clear evidence about the effectiveness of videofeedback in promoting parental sensitivity in dyads, but in the case of PRF it has been reported to a lesser extent and with pilot studies and/or small samples, in specific populations and clinical interventions, and not in preventive interventions and the general population (Santelices et al., 2016).

Videofeedback has numerous investigations and there are two meta-analyzes that have concluded about its effectiveness, which facilitates its study and application in diverse contexts. The findings of the meta-analyzes indicate that it is a very useful tool for fostering positive family relationships, as it helps change the ways in which parents talk about their children, the ways in which they behave with them, reduce levels of parental stress and the symptomatology of both members of the dyad (Bakermans-Kranenburg, van IJzendoorn & Juffer, 2003, Fukkink, 2008, Juffer, Bakermans-Kranenburg & van IJzendoorn, 2005). In Chile, it has also been implemented with successful results in promoting maternal sensitivity and clinical populations, however, these results are still preliminary, given the sample sizes and their focus on specific problems (Gómez y Muñoz, 2012; Suárez, Muñoz, Gómez, y Santelices, 2009; Olhaberry, Mena, Zapata, Miranda, Romero & Sieverson, 2015; Olhaberry, León, Seguel, & Mena, 2015; Olhaberry et al., under review).

As already mentioned, Videofeedback is a strategy that performs feedback through videos and, as with other interventions focused on parenting, two approaches can be distinguished (behavioral and psychotherapeutic), and there are also interventions that combine them (Smith et al., 2013). The origins of Videofeedback come from H. Biemans, who since the beginning of the 1980s and based on the work of C. Trevarthen and the theory of inter-subjectivity, works with videos of mother-baby interactions (Trevarthen cit. in Kennedy, Landor & Todd, 2011).

This strategy may be incorporated as a tool within larger intervention, or be the main strategy of intervention. Independent from the approach, its objective is to strengthen and promote those positive patterns of interaction and modify those that are more dysfunctional, in such a way that it increases shared enjoyment in the parent-child relationship (Marvin, Cooper, Hoffman, & Powell, 2002; McDonough, 1995; Murphy, Steele & Steele, 2012). The strategy is based on and generally has a focus on the resources and competencies of the caregiver as such and seeks that it is he/she defines the problem from his/her perspective and who discovers himself/herself in a positive way. However, the Videofeedback strategy considers the recognition and analysis of the difficulties and negative and harmful interaction patterns, but generates a stimulating instance to address them and explore other ways of exercising parenting (Kennedy, Landor & Todd, 2011; McDonough, 2000).

Interventions using Videofeedback have focused mainly on caregivers of young children between 0 and 3 years of age, and the evidence indicates that the most effective interventions are those made between 6 and 54 months (Bakermans-Kranenburg et al., 2003).

Interventions that use Videofeedback are generally brief (5 to 12 sessions) and more effective than the longer ones (Bakermans-Kranenburg et al., 2003; Fukkink,



2008). The meta-analysis by Bakermans-Kranenburg (2003) includes 81 studies of results of interventions focused on parental sensitivity, most of the studies considered only mothers. Most interventions showed an effect on parental sensitivity and to a lesser extent on the security of children's attachment and those that were most effective were not the longest. The use of Videofeedback appeared more effective ( $d = 0.44$ ) than those interventions that did not include it ( $d = 0.31$ ,  $Q = 4.08$ ,  $p = .04$ ). The meta-analysis carried out by Fukkink (2008) reviewed 28 studies of results of interventions with Videofeedback and found that the intervention produced a statistically significant effect on the behavior of children with a medium effect size ( $ES = 0.33$ ,  $SD = 0.10$ ), and a moderate effect of the intervention in families of high psychosocial risk in which minor changes are observed, for example, families of low socioeconomic levels, caregivers with mental health problems, adolescent children, and single parents.

Several outcome studies and randomized clinical trials have been carried out after these meta-analyses and they have found direct and indirect effects of the interventions on the variables of interest and not all interventions have been successful compared to other usual interventions. These studies have been carried out to evaluate the effectiveness of the use of Videofeedback in interventions focused on the promotion of sensitive discipline and positive parenting, as well as in interventions focused on the modification of attachment patterns and parental representations. Below are some of the studies with their results.

In studies about interventions that use Videofeedback to promote sensitive discipline: Pontoppidan, Klest & Moller (2016) about an RCT of the IYPB program (Incredible Years Parenting - Babies) with 112 families did not find a favorable effects from the intervention nor a universal effect in comparison with a usual high-estandar intervention; in addition, but they did describe that those mothers with better

functioning were those who most decreased their parental stress and those with worse performance increased their stress level after the intervention and this same happens with parental confidence and mental health after the intervention. Moss, Dubois-Comtois, Cyr, Tarabulsy, St-Laurent, & Bernier (2011) in a sample of 67 dyads, reports results of an intervention in a sample with background from social services, and report statistically significant differences in the sensibility and security in the attachment of the experimental group, however these effects cannot be attributed solely to the intervention. Groenveld, Vermeer, van IJzendoorn, & Linting (2016) reports results of the Videofeedback Intervention to promote Positive Parenting-Child Care (VIPP-CC) in a sample of 47 cases with children with home health care, found no overall effect of the intervention compared to a control group (which received 6 telephone calls), but they did find that adults from the experimental group spent more time with their children after the intervention and the children reported greater well-being. Kalinauskiene, Cekuoliene, van IJzendoorn, Bakermans-Kranenburg, & Kusakovskaja (2009) also report results of the VIPP, they found that those mothers who participated in the intervention significantly improved in sensitive response controlling for individual, child and sociodemographic variables, but did not find an effect of the intervention on the security of the attachment in comparison with the control group neither in the case of more reactive children (temperamental). Hoivik, Lydersen, Drugli, Onsøien, Hansen, & Berg-Nielsen (2015) report an RCT of the Videofeedback of Infant-Parent Interaction (VIPI) of the Marte Meo program in Netherlands compared to TAU in a sample of 158 mothers and their small children under 2 years of age and find an effect of the intervention after the intervention in Emotional Availability, but not to follow-up; the follow-up finds an effect on the risk in the DSE and in the depressive symptomatology, in comparison with the control group. Fisher, Frenkel, Noll, Berry, &

Yockelson (2016) and Nese, Anderson, Rupper, & Fisher (2016) report the program and results of a new intervention – Filming Interactions to Nurture Development (FIND) in a small pilot sample of 4 mother-child dyads, finding that the mothers who had intervention improve systematically in maternal behaviors and keep these changes for the evaluations after the intervention, but indicate that they are still preliminary results. Yarger, Hoyw, & Dozier (2016) report results of a randomized clinical study of Attachment and Biobehavioral Catch-up (*ABC*; Dozier & the Infant-Caregiver Project Lab, 2013) in a small sample of 24 cases indicating that the mothers of the intervention group significantly improve in sensitivity, they decrease significantly in intrusiveness, and these changes are more significant in the first half of the treatment than in the second half.

On the other hand, interventions that work with parental representations, Barlow, Bennett, Midgley, Larkin, & Wei (2015) report a review of RCT with interventions based on the Parent-Infant Psychotherapy PIP (Fraiberg, 1975), including 8 studies with samples of caregivers with young children who initially considered 846 dyads. In general, these are clinical and non-universal interventions aimed at specific populations; that compare PIP with other interventions, among them Videofeedback and when comparing PIP with other interventions with Videofeedback, in several studies they do not find differences between the results of the interventions. Barlow, Sembi, & Underdown (2016) report an RCT with Video Interactive Guidance with 32 dyads of mothers with their premature-born babies, and report that the intervention group shows great differences with the control group in parental sensitivity, anxious, depressive symptomatology and parental stress, but these differences are not significant. Hoffenkamp and colls. (2015) reported an RCT of VIG with parents and their premature-born children (N = 150) found that VIG was effective in promoting maternal

sensitivity and decreasing avoidant behaviors and those who benefited most from the intervention were those mothers who had more traumatic preterm birth experiences.

Interventions with Videofeedback emerged and are typically implemented in homes and emerge as an intervention strategy with hard-to-reach families, but nowadays they are implemented in hospitals, clinical and residential contexts and in more than 15 countries; carried out by clinical therapists and social workers (Kennedy, Landor & Todd, 2011).

The videos that are used are filming of daily interactions between adults and children (game, changing diapers, food), which last between 5 to 15 minutes approximately. The strategy works analyzing, moment by moment, the interactional videos, as a representation of the family structure (McDonough, 1995) focusing more on episodes where positive patterns of interaction are evidenced, on the premise that the adult's adequate responses to his/her child's initiatives are the "bricks" of a complete pattern of appropriate interactions (McDonough, 1995; Thiel, Cierpka, & Cierpka, 2008; Thiel, 2012). Through the focus on successful interactions between parents and children, both the facilitator and the parent have the opportunity to discuss their strengths and the possibilities of change (Doria, Kennedy, Strathie, Strathie, & Adams, 2011).

### ***How and why does the Videofeedback work?***

Although there is ample literature about the effectiveness of various interventions that use Videofeedback, there is a "debt" in scientific literature regarding the mechanisms underlying the strategy. However, what has been reported is that being a visually specific and distant tool - since it is a situation that represents everyday moments but that is not happening at the moment it is observed - it is less overwhelming and opens up greater possibilities of understanding for the adult; the

image or the segment becomes a vehicle for translation and discussion that allows to see the nonverbal behaviors of the adult and the child (Beebe, 2003; McDonough, 2000; Rusconi-Serpa, Rossignol, Zelenko & Benham, 2000).

The fact of seeing oneself allows to watch the interactions filmed with the children as a spectator; interactions that are emotionally charged but that are not happening in the present moment, which makes it easier to examine what happens with the caregiver and the child, with the therapist's help as a secure base to explore these experiences (Jarvis & Polderman, 2011 in Kennedy et al., 2011; Smith, Dishion, Moore, Shaw, Wilson, 2013). When the caregiver sees him/herself interacting, he/she can identify him/herself with his/her own child and, on occasions, remember his/her own childhood experiences, which become a gateway to his/her representational world and access to a greater understanding of immediate experiences with his/her child (Doria, Strathie & Strathie, 2011; Thiel, 2012; Zelenko & Benham, 2000). Cierpka (2008) emphasizes that the Videofeedback strategy allows to "extend" the perception limits but at the same time with distance, being a strategy that allows to see and remember real experiences and to be able to translate into words the key points of the carer-child interaction, but without being overwhelmed by them as if they were present.

Despite this "debt", neuroscience has allowed progress in this direction, allowing the approach of the mechanisms underlying the operation of Videofeedback. It is already known that brain reaction and activation are different when seeing images of oneself and others (Devue & Bredart, 2011; Sinigaglia & Rizzolatti, 2011).

In relation to the use of images to promote these competences and their neural correlate, the particular evidence of Videofeedback is still scarce, but it has been seen from imaging studies with fMRI that when mothers see segments of their own children in a situation of play and of separations, contrary to what happens when seeing these

segments with unfamiliar children, they express a significantly greater activation of the amygdala, insula, anterior paracingulate cortex, posterior superior temporal sulcus, regions associated with the Theory of Mind and that mediate the emotional response (Leibenluft, Gobbini, Harrison, & Haxby, 2004); of the caudate nucleus and right inferior frontal gyrus (IFG), which are zones associated with more complex cognitive and motor processing and the decoding of emotions (Noriuchi et al., 2008). In mothers with adequate mental health, upon viewing happy images of their own babies, brain reward systems are activated, specifically related to dopamine neurotransmitters, compared to seeing an image of a baby they do not know. More interestingly, dopamine could be associated with a highly addictive drug, but what in the mother regulates the amount of dopamine that must be released is controlled by the expression of the baby, that is to say that when seeing sad faces, only a little is released and nothing when seeing plain faces, but in front of a smile, a great flow of dopamine is released. These processes may not occur in depressed mothers, which influences the subsequent emotional recognition that the baby him/herself makes of the environment and his/her own emotions (Bateman & Fonagy, 2012).

One of the models of intervention that has been based on the knowledge of neuroscience is that of FIND mentioned above, indicating that executive function is closely related to emotional regulation (Zelazo, Qu, & Kesek, 2010) and that these two competences, plus the cognitive capacity to deal with contextual stress, are basic for the exercise of parenting, for perception, responsiveness and flexibility in the face of children's needs, as well as mentalization (Deater-Deckard, 2014; Deater-Deckard, Wang, Chen, & Bell, 2012; KienHuis, Rogers, Giallo, Matthews, Treyvaud, 2010). The findings of neuroscience have allowed to visualize the neural correlate of these functions and relate it to the parental exercise in the parents' responses to affective

signals from their children (Maupin, Hayes, Mayes, & Rutherford, 2015; Swain, Lorberbaum, Kose, Strathearn, 2007).

The model proposed by Fisher and colls. (*FIND*; Fisher et al., 2016) suggests that by focusing on certain behaviors of adults, the intervention is expected to modulate the consequent executive function and cognitive control and the neural correlate associated to them: attentional control (noticing the child's signals and sharing his/her attentional focus), self-monitoring of the adult (noticing and reflecting on their own appropriate responses in interaction with the child), and inhibitory control (waiting for signals from the child and letting him/her lead the game; "serve"), being able to engage more deeply with the child. Neuroscientific evidence suggests that this would increase limbic activity in adults, which would improve their sensitivity to the emotional signals of the infants, and that cognitive "topdown" control would help parents reflect more effectively on their own emotions, being more able to process the signals of their children and contain their emotions (Dennis, O'Toole, & DeCicco, 2013).

In addition to the benefits of Videofeedback associated with the exercise of parenting and the association it has with brain functioning, the technique itself is capable of enriching the therapeutic context since it a) facilitates the therapeutic alliance in the sense that both caregiver and the therapist observe and in a certain sense experience together the observed sequence, which differs from the caregiver's narrative of some situation with the child appealing to the memory and passing of time and incorporating distortions and defenses that may appear, b) seeing him/herself interacting with a child almost inevitably demands the explicit and implicit reflection of the caregiver, thereby promoting reflective functioning, and c) viewing video segments in a therapeutic context demands a "multi-modal" experience of the affect that is implicit in the video and that should be put into words from that which is visual, auditory,

cognitive, and from movement (Murphy, Steele, & Steele, 2012; Steele, Steele, Bate, Knafo, Kinsey, Bonuk, Meisner, & Murphy, 2014).

On the other hand, the perception studies of the users of the Videofeedback are also rather scarce and from small samples and can be associated to the effectiveness of the interventions, but they do not configure studies on effectiveness, and they provide enriching information of the general results of the interventions and the underlying theoretical frameworks that are consistent with the therapeutic objectives.

The available findings have been taken from the narratives of the same adults and the pioneering study was carried out by Sluckin (1998), who studied the Videofeedback process and the changes observed in two parents with problems to establish relationships and postnatal depression, indicating that looking at oneself 'from the outside looking in' perspective allows the mother to see the baby and the interaction from a new perspective. Another study by Hynd and Khan (2004) explored changes in the identity of women suffering from postnatal depression and described that the use of videos is a narration in present time, which makes it possible to remake the stories of oneself.

Doria, Kennedy, Strathie, & Strathie (2013) conducted a study about the factors that could explain the success of Videofeedback, in addition to the findings provided by neuroscience. They carry out a content analysis of 15 Videofeedback sessions, interviews and focus groups that sought to build a comprehensive model for this intervention strategy. The model is composed of 4 methodological components and 2 processes underlying success, which together explain how Videofeedback significantly affects happiness, self-esteem, self-efficacy and attitude and behavioral change reported by users and therapists (see Figure 4).



The methodological components are (C1) which refers to the reception given by the facilitator of the initiatives and goals of the parents. This means providing a secure space and the conditions that are necessary for the success of the entire intervention, a task for which the facilitator must first establish a relationship in tune with the family. (C2) which refers to the interaction filmed in the presence of the facilitator and which is therapeutic in itself, since families begin the intervention at their best level of functioning and capacities. (C3) which refers to a focus on achievements, looking for and showing signs of success and improvements in the videos, rather than the problems that made them seek help. (C4) that refers to the editing of the video as a proof of success and change, offering a "seeing is believing" test to the families, being able to repeat these segments and stop it in certain micro-moments to highlight specific aspects of harmony between the caretaker and his/her child.

On the other hand, in relation to the mechanisms underlying the change, (M1) refers to the meta-cognitive processes that are activated by viewing him/herself in a different way from his/her negative pre-conceptions about him/herself. The need expressed by parents to understand why what happens in the video happens and that it is far from what they believe in their real life, forces them to reflect on themselves from another perspective, favoring change. (M2) refers to the shared construction of a new reality with the support and collaboration of the facilitator.

The dimensions highlighted in relation to the results are (O1) happiness, (O2) self-esteem, (O3) self-efficacy, (O4) attitudinal and behavioral change, are understood in the integration of the proposed model. This model organizes the components of the VIG in a temporal order that begins with the methodological components and continues through the underlying mechanisms; an interaction from which the results and achievements in the parents emerge; happiness, self-esteem, self-efficacy and a positive

behavioral-attitudinal change, which, in turn, are considered as drivers of future changes after the intervention.

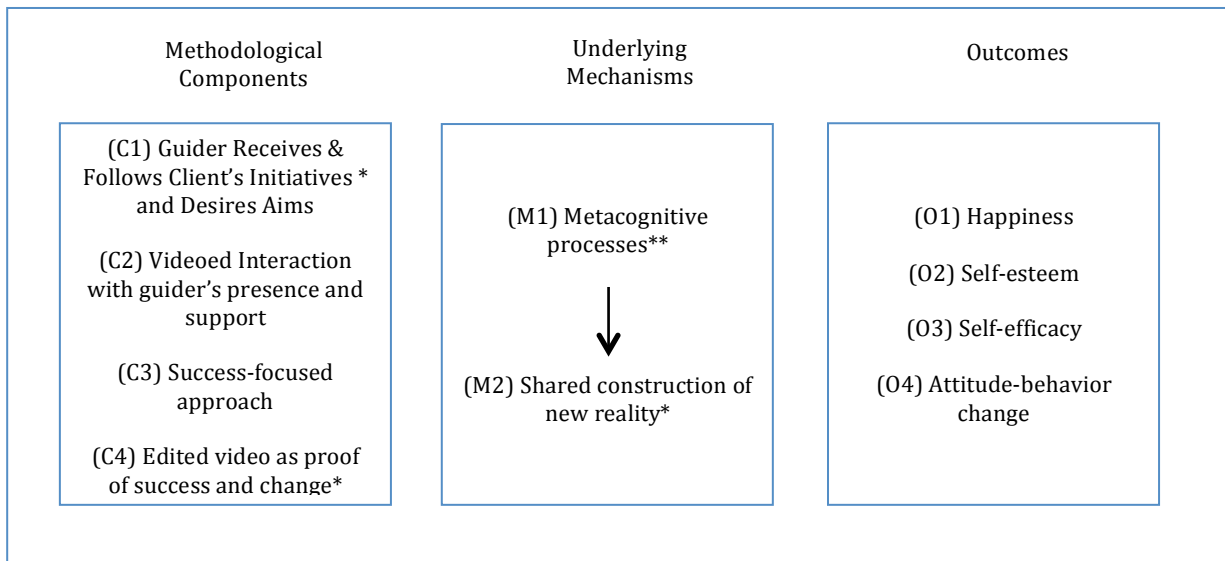


Figure 4. Explanatory model of the success of Videofeedback

Note. \*Factors added by supervisors during the focus groups; \*\* This factor includes both self-reflection and meta-cognition.

Source. Doria et al., 2013

Considering the theoretical approaches and findings of various interventions, the role of the facilitator performing Videofeedback interventions is challenging. The Marte Meo program (Aarts, 2008; Vik & Rohde, 2014) argues that the use of real-life images is a very powerful approach for the protagonist and that the facilitator shall have to work at different levels at the same time. First, observing what happens on the screen; second, putting him/herself in a place where he/she can observe the mother during the video review and at the same time attend and be sensitive to the caregiver's signals, reactions and needs while watching the video; third, being available to observe the emotional expressions of the mother, name them, and notice how they are associated with the corporal expression that the caregiver has and help him/her integrate those emotions.

It is in these conditions, when it is possible to create a space to explore new thoughts and feelings, which configures a tiring exercise for caregivers and for the same reason is that the facilitator can also offer moments of rest. The use of videos is motivating for caregivers to mobilize parents so that they find and test their own solutions; being this is crucial for a successful outcome (McDonough 1995, 2000). Success rarely appears in the early stages, but it appears as a process of development, however, small changes must be shown and motivated in families and continue to do so. Caregivers will need to be comforted and supported in difficult situations, sometimes he/she will need to provide more support, but always keeping the focus on the child (Doria et al., 2011).

It is for these same reasons that it is suggested that the use of Videofeedback should be an intervention freely chosen by caregivers, offering them a first test session and from that experience decide if they want to continue (Doria et al., 2003; 2011). Other concerns that the facilitator may have, for example, is that parents act unnaturally when they are being recorded and that will happen, they will try to show themselves in the best way they can be and that will provide very relevant information, in addition to the answer the child will have when faced with these adult behaviors (Doria et al., 2011, McDonough, 1995).

#### ***5.4.3. Videofeedback in group-based interventions.***

Parenting interventions have been increasing in the last decades and many of them consider group formats (Barlow, Parsons, & Brown, 2005; National Center for Parent, Family and Community Engagement, 2015; Olhaberry, Escobar, San Cristóbal, Santelices, & Farkas, 2013), especially in the field of universal interventions and when

social-risk populations are the target population, because they allow to cope with isolation and foster social support (Murphy et al., 2013).

Group-based interventions aiming to improve parenting are common in cognitive-behavioral approach and combine with other strategies of intervention like home-visiting, and they have been successful for depressed pregnant and recent mothers in increasing sensitivity and strengthen dyad's relationship, as well as decreasing caregiver's depressive symptoms (e.g. Murphy et al., 2015; Olhaberry, Escobar, San Cristóbal, Santelices, & Farkas, 2013; ).

Toranzo, Taborda, Ross, Mergenthaler and Fontao (2008) conducted a psychotherapy process research, which studies the efficacy of group interventions of parents, taking the evidence related to effectiveness of group psychotherapy highlighting the fact that psychotherapeutic processes inside groups have been less described and studied. This research refers that groups go through certain stages in order to configure itself and to determine the focus of the intervention, and these processes are similar to those that every member goes through individually, ranging from the most diffuse to the most clear, and from the most intense relationships to the less ones.

Toranzo and Taborda (2002), and Korzeniowski and Ison (2008), in earlier studies reported similar findings, acknowledging that the group gives parents a concrete opportunity to express themselves and comprehend better their inner reality and experience. In this sense, the group offers their members a communication experience. In fact, Yalom and Leszcz (2005) and Siegel (2010) argue that group therapies enhance learning and reflective practice that allow to understand oneself and others, and also to achieve therapeutic goals through connecting with peers with similar problems. Some authors point out several therapeutic factors that take place during therapy, that is

altruism, hope, social skills and learning, sense of belonging, emotional expression and positive behaviors modelling.

Parents who participated of group psychotherapies describe processes in a positive way highlighting the group work that takes place inside the group and sharing daily difficulties, referring that in this context is possible to build problem's solutions working with parents with similar problems, allowing mutual help (Jonsdottir & Coyne, 2016). By its part, facilitator's role in group-based interventions has been distinguished and described as leading the interaction in order to enhance conversations, and not to solve them (Murphy et al., 2012; Steele et al., 2010; Toranzo & Taborda, 2002). This means that the role of the facilitator is not as an expert like in the more traditional approaches, but a role of a collaborator for the participants (Cassidy, Brett, Gross, Stern, Martin, Mohr, & Woodhouse, 2017; Pazzagli, Lghezza, Manaresi, Mazzeschi, & Powell, 2014).

As it was mentioned before, videofeedback intervention has been typically implemented in caregiver-facilitator dyads and more clinical settings, many of them in home-visiting programs. Nevertheless evidence regarding group interventions reports its efficacy in a wide range of parenting interventions.

A review of the evidence of group interventions using Videofeedback (Sieverson, Zapata, Santelices, in prep.) reports that the use of videos in parental competences and caregiver-child relationships allows to enhance self-efficacy for parenting and caring for children, leading the parents to move along through goals established by themselves as well as addressing more difficult aspects from their relationships (e.g. Nese et al., 2016; Page & Cain, 2009; Sharry et al., 2005). Moreover, researches report positive and significant changes after interventions, emphasizing the

increasing sensitive interactions, improvements in attachment styles and child's behavioral problems (Marvin et al., 2002; Page & Cain, 2009; Steele et al., 2014).

All studies report interventions focused on parent's resources and strengths, which is coherent to Videofeedback's approach (McDonough, 2000; 2005), as well as the fact that the strategy aims to promote what Strathie et al. (2011) call a "non-guilty culture". Studies highlight that the use of videos fosters a significant learning that is self-model by the participants and, at the same time, from other's experiences seen in videos (Sharry et al., 2005; Steele et al., 2014).

Regarding the group-based format, Steele et al. (2014) refer to the benefit of the group, saying that the fact of being in a group with peers opens the possibility of expressing own feelings and experiences, and at the same time the group becomes a support for all of their members that helps to feel safe to explore what is happening in the video. Jondsottir & Coyne (2016) reported preliminary results of a study regarding the way that reflective functioning and group processes within the Circle of Security therapy support dyadic changes. First, they highlighting the fact that parents recognize by themselves the advantage of being in a group having other parents with them in sessions: group format may enhance reflective functioning because it is an ability that can be learned and improved in a group and, at the same time, that allows being able to acknowledge and rise above emotions. More interestingly, group programs enable to learn about the self from other's experience: by seeing own actions more clearly in other parent noticing things that were not clear in their own videos, and by vicarious learning from the example of other parents. Another finding, which also is a goal of the program, is that the group may allow the practice of being a containing environment for parents with their parenting difficulties and deep frustrations. This objective can be achieved to the extent that the facilitator promotes a containing environment, being he/she the first

example of containment. Through this attitude of the facilitator and this practice within the group is that parents are expected to repeat these ways of relating to their own children.

Attachment-based interventions (e.g. Circle of Security, Group Attachment-Based Intervention, and Emotional Availability Zones) pose that video vignettes allow to activate caregiver's attachment system, providing an additional tool that facilitates reflective functioning (Steele et al., 2014; Page & Cain, 2009; Marvin et al., 2002), and this way, promoting caregivers' review of their own parenting histories (Page & Cain, 2009).

Nevertheless, as it was discussed before, neuroscientific evidence has shown that neural correlate from attachment system and reflective functioning activate differentially, existing a 'paradoxical' relation between them (Suchman, Pajulo, Kalland, DeCoste & Mayes in: Bateman & Fonagy, 2012). Thus, the moment when attachment system activates is the moment when the role of the facilitator and the group take place, becoming a secure base and secure haven for the caregiver and all group participants; being the facilitator in that role is when it is possible for the caregiver to re-activate his/her PRF and reflect about video segments (Marvin et al., 2002).

Despite the fact that both attachment-based and parenting trainings are brief interventions; focus on modifying attachment style may explain why attachment-based interventions tend to have longer duration than those focused on communicational patterns. Given that attachment pattern tends to stability, it is possible that interventions aiming to modify it must be longer (e.g. Bakermans-Kranenburg et al., 2003).

On the other hand, interventions like IYPP and PPEY (see for a review Sharry et al., 2005; McIntyre, 2008) are focused on empowering parents with specific goals in order to help their children to concentrate, learn, communicate and behave in a

cooperative and prosocial way. These interventions do not deny attachment-based approaches and comprehend difficulties in parent-child relationships with the transactional model, suggesting that interactions between caregivers and their children predict developmental outcomes as well as might explain developmental psychopathology (McIntyre, 2008). This is why these interventions work with a more cognitive-behavioral approach focused on sensitive discipline and positive parenting, but not addressing to parental representations (e.g. *IYPP*; Webster-Stratton, 2008).

Below are described some interventions that use Videofeedback in group-based intervention.

**1. *Circle of Security* (CoS;** Cooper et al., 2005; Marvin et al., 2002) is a manualized intervention, based on attachment and Videofeedback, which aims to help high-risk dyads in their relationship to provide a safe base and shelter for their children. CoS considers a program of 20 weekly sessions all in group format, which considers pre and post-intervention evaluations.

An important component of this intervention is that caregivers understand and focus on the idea that pleasurable interactions with their children are often interrupted and need to be repaired (Biringen, 2009; Tronick, 1989). It is this ability to repair the interruption that configures the essence of a secure attachment, and not the absence of interruptions. This repair requires clear signals from each member of the dyad, clear understanding of them and an adequate response to the other's signals (Powell, Cooper, Hoffman, Marvin, & Zeanah, 2014; Jondsottir & Coyne, 2016).

Work is carried out focused on the needs each dyad, but all the members of the group participate and attend all the sessions. The intervention supposes, then, to individualize the intervention plan focused on the attachment patterns, strategies or



interactions characteristic of each dyad and its Internal Operational Models. Thus, this model proposes that it optimizes the "goodness of fit" between each parent with his/her child and helps avoid potential problems of "one-size-fits-all" interventions. (Marvin et al., 2002; Powell et al., 2014; Page & Cain, 2009).

This intervention arises as a contribution to the need to train community services through a manualized program (Cassidy et al., 2017). This intervention's basic theoretical approach is that children tend to develop a secure attachment when they can rely on an attachment figure to which they can return as a safe refuge to be comforted when stressed and to use it as a secure base from which they can go out to explore confidently (Cassidy et al., 2017; Marvin, Cooper, Hoffman, & Powell, 2002).

*Results.* CoS has quite a few results from its interventions compared to other programs; the last RCT published with the modified CoS-P modality (Cassidy et al., 2017) for a more universal implementation, with a sample of  $N = 141$  mothers of preschool children, reported a marginal effect of the intervention: an indirect effect of the intervention in the security of the child's attachment ( $t_{(128)} = 3.37, p < .001$ ) and the rate of disorganization ( $t_{(128)} = 2.38, p < .02$ ) moderated by avoidance in the mother's attachment, with statistically significant differences with the control group that showed greater disorganization and less security. In the case of mothers, the greatest effect of the intervention was those mothers' unsupportive response to stress in comparison with the control group. Other studies of the same intervention but for specific populations have reported case studies (Marvin et al., 2002; Page & Cain, 2009; Pazzagli et al., 2014) and have shown better results, for example, Hoffman and colls. (2006) in a sample of  $N = 67$  mothers of toddlers and preschoolers found significant differences in the percentage of children moving from a disorganized to organized attachment (69%) versus those that go from an organized to a disorganized one (15%) and that, in general,

the percentage of children who went from an insecure attachment to an organized one (44%) was significantly higher than the reverse (8%). Another example is the study by Cassidy and colls. (2010) with a sample of N = 20 pregnant women (COS-PP; Cooper et al., 2003) in prisons, evaluated mothers with their babies at 6 months and reported that 70% of the children showed a secure attachment with their mothers, 20% insecure-disorganized, and in maternal sensitivity, they were similar to samples from first-time mothers of non-clinical samples.

**2. *Group Attachment-Based Intervention (GABI)*** (Steele, Murphy, Steele, 2010; Murphy, Steele & Steele, 2013) is an intensive, attachment-based intervention specifically designed to work with hard-to-reach and high-risk families with infants and young children (parents with Adverse Childhood Experiences, living in poverty, domestic and neighborhood violence, and child maltreatment), with the aim of strengthening the parent-child relationship, the FRP and emotional attunement of the caregivers, through three session modalities (only parents, parallel sessions only children, and parent-child sessions). It has an intensive frequency of 2-3 sessions per week, of 120 minutes each, for 6 months. It uses videos as its main strategy, but it is not the only one and its approach to work is translational, considering instances of supervision and research that nourish and nurture clinical practice.

The intervention is based on the theory of attachment and the FRP construct based on the possibilities of change proposed by Bowlby (1988), when referring to the fact that although the capacity for change in the course of development diminishes with age, the change continues with the cycle of life, in such a way that changes, for better or for worse, continue to occur, which indicates that there is a potential change and that people are never impervious to change.

The intervention model is summarized in the acronym "Rearing" (Murphy et al., 2012), that groups the concepts Reflective functioning, Emotional Attunement, Affect regulation, Reticence in therapeutic and parental relationship, Intergenerational patterns, Nurturing, Group support, referring to the key elements of the intervention. In addition to this, they propose the "Multiple nested relationships in group attachment-based intervention (GABI)", referring to the awareness that the lead clinician should have about the different levels of relationship in the implementation of the intervention, recognizing the need for each level to feel contained and supported, since this is the way parents will do it with their children. These relationships are not unidirectional, since the parents' needs and desires also nourish the therapeutic environment (Steele et al., 2014).

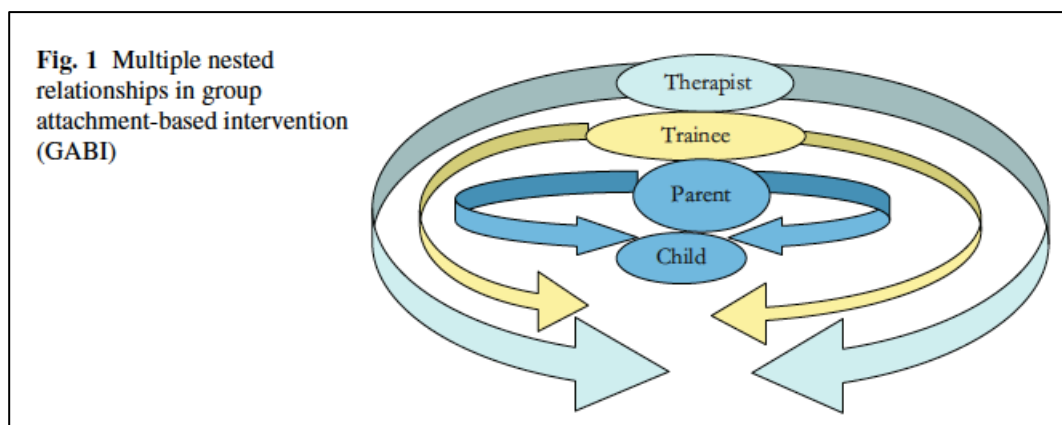


Figure 5. Multiple nested relationships in group attachment-based intervention (GABI)  
Source. Murphy et al., 2012

*Results.* The intervention does not yet have evidence about its effectiveness; since it is still in its clinical trial phase compared with STEEP. It only has some case studies and intervention results that have been reported prior to the start of the clinical trial and with a descriptive article of the sample of mothers of the RCT (Murphy et al., 2015). The results of the intervention show differences between the mothers who enter the intervention and those who have already completed it, distinguishing the frequency of

disorganized attachment that is statistically lower in the second group (Fisher's Exact  $p < .05$ ). (Steele et al., 2010, 2014).

**3. *Mellow Parenting*** (Puckering, Rogers, Mills, Cox & Mattsson-Graff, 1994; Puckering, Evans, Maddox, Mills, & Cox, 1996) a 14-week full-day programme delivered one day a week that considers group support instance with Videofeedback and parenting interventions for mothers or fathers from pregnancy to school-aged children. During the intervention there is a parallel group where the children spent the day, joining their parents for lunch. Regarding the Videofeedback strategy, group participants first watch their videos with the therapist individually and select the moments they would like to share later with the group. The therapist asks each participant to set his/her goals, and the group to help find solutions for those objectives.

Mellow Parenting was developed in 1994 -1996 with the aim of promoting parental-child attunement and improving the behavior and development of children who have severe relational problems within their families.

Mellow parenting has been implemented in several kinds of mothers and fathers of several kinds of children (MacBeth et al., 2015), for example, fathers in prison (Langston, 2016), fathers of at-risk children (Scourfield, Allely, Coffey, & Yates, 2016), mothers with ante- and post-natal depression (Puckering et al., 2010), children with Reactive Attachment Disorder (Puckering et al., 2011), are some examples.

*Results.* The available MP results are from interventions in specific populations; MP-Babies in a sample of  $N = 17$  mothers with PPD (Puckering et al., 2010) showed that mothers' depressive symptomatology significantly decreased compared to the control group and differences in the quality of the relationships were also observed, finding significant differences in the presence of negative and positive behaviors with their babies, worsening the quality of the interaction in the control group and improving

the intervention. Puckering and colls. (2011) in a sample of parents of children between 6 and 9 years old with RAD in which results indicate that an effect of the intervention is not observed in the child or in the caregivers; and that in fact there is an increase in negative interactions and a decrease in positive ones during the group intervention. The authors argue that the absence of effect of the intervention can be related to the role of early trauma in brain development and its lasting effect; and the need for early interventions in ACE situations and RAD development. A meta-analysis of MP analyzed 8 publications that considered 9 different samples and found that MP has a moderate effect on the caregivers' mental health ( $d = -0.67$ ) and on the children's problems ( $d = 0.40$ ) compared to the control group. Results of two MPs made with parents and published in 2016 have been published, a pilot experience with parents in prison (Langston, 2016) and another with parents of children at risk (Scourfield et al., 2016), but only the first one reports results of the intervention. The first reported that giving parents an instance to take care of their children promoted a commitment in their parental role and that parents progressively decreased behaviors of hostility and passivity and rejection of parenting, and on the other hand, that it increased the understanding of the importance of play, empathy and limits for their children.

## **6. The Present Study**

### **6.1 General and Specific Objectives**

#### **6.1.1. General objective**

Describe and analyze the effect of a group intervention with Videofeedback, in parental Mentalization and in the mother-child interaction in preschool mothers, compared to mothers without intervention.

#### **6.1.2. Specific Objectives**

1. To describe and analyze associations between mother's Reflective Function with mother's references to Mental States, Parenting Interactions, Attachment and Parenting Stress, and risk in children's Socio-emotional Development at baseline.
2. To describe and analyze the predictor effect of mother's Attachment over Reflective Function, Parenting Stress and Parenting Interactions, and children's risk in Socio-emotional Development, at baseline.
3. To describe and analyze changes in Reflective Function, pre- and post-videofeedback sessions, and compare these changes with mothers without intervention.
4. To describe and analyze the effectiveness of the intervention over mother's references to Mental States, pre- and post-intervention, and compare these changes with mothers without intervention.
5. To describe and analyze the effectiveness of the intervention over Parenting Interactions, pre- and post-intervention, and compare these changes with mothers without intervention.

6. To describe sociodemographic and mental health profiles of mothers, considering changes in Reflective Functioning and Parenting Interactions pre- and post-intervention, and children's Socio-emotional Development risk.

## **6.2. General and Specific Hypothesis**

### **6.2.1. General Hypothesis**

The mothers who attend the group intervention with Videofeedback, will show better levels in the parental Mentalization and in their Parenting Interaction, after it and in comparison to mothers without intervention.

### **6.2.2. Specific Hypothesis**

1. Parental Reflective Function will correlate with the other variables of interest such as the mother's Parenting Interactions, references to Mental States, Parental Stress, risk in Socio-Emotional Development.
2. Anxiety and Avoidance in mothers' attachment will predict the mother's Reflective Function, Parenting Interactions, the levels of Parental Stress and the risk in the Social-Emotional Development of their children.
3. The mothers who attend the intervention with Videofeedback, will show better levels of Reflective Parental Function in their narratives, compared to an intervention group.
4. The Parental Reflective Function will have a modulating role between the pre and post-intervention maternal variables.
5. The mothers who attend the intervention, will show better levels in Mentalization, compared to mothers without intervention.
6. The mothers who attend the intervention, will show better Parenting Interaction with their children, compared to mothers without intervention.

7. Avoidance and Anxiety in mother's attachment will be significant predictors of the change in mother's Reflective Functioning and Parenting Interactions, after the intervention and in comparison to mothers without intervention.
8. It will be possible to configure mothers' profiles according to mother's Reflective Functioning levels and Parenting Interactions, and it shall be possible to distinguish pre-and post-intervention.

## **7. Method**

### **7.1 Design**

This study has a quasi-experimental, longitudinal, exploratory and descriptive design, and uses quantitative methodology.

The independent variable of the study is a preventive group intervention that uses Videofeedback and is based on mentalization. The intervention is pilot, since it uses a methodology that is a pioneer in Chile and does not have precedents in Latin America. It is a quasi-experimental design; the sampling was done by cluster (kindergartens). As of a list of kindergartens that contained only the establishments without psychological interventions at the time of this intervention, the ones that would be part of the experimental and control group were randomized and then the representatives of each kindergarten were invited to participate in the study, knowing beforehand if they would participate in the intervention or the control group.

The design considers evaluations before, during and after the intervention and follow-up 6 months after the intervention is finished (see Table 10).



*Note.* The contribution of this doctoral dissertation to the main Project is the focus on Videofeedback strategy in group-based interventions, and the assessment of Parental Reflective Function and Parenting Interactions.

## **7.2 Procedure**

The randomization of the sample was carried out by clusters (kindergartens), including the establishments that did not have psychological interventions at the time of the intervention of this study. The kindergartens were randomized, forming two groups, experimental kindergartens where the evaluations and intervention were carried out and control kindergartens where no intervention was carried out in addition to the evaluations.

After randomization, meetings were held with the establishments that agreed to participate in the project to explain in depth what the participation was as an experimental kindergarten and a control kindergarten. Having finished with this phase, the establishments signed letters of authorization to carry out the study in their kindergartens. After this, open invitations were given to kindergartens to invite all the parents with children of the establishments who were between 3 and 4 years of age to participate in the study.

Having made the invitations, the establishments delivered a list of all students of those ages, with telephone number and data of the parents to the research team for them to be able to contact them individually.

A group of evaluators, made up of student psychologists or recent graduates, contacted all the parents (including fathers, mothers, grandparents) of the list by telephone, detailing what their participation consisted of if they agreed to it (as an experimental group or control group). A first interview was held with the parents who

agreed to participate to sign the informed consent and the first evaluation was carried out in the premises of the same kindergarten.

Having gathered the evaluations of the parents who agreed to participate in both groups, lists were prepared for each experimental kindergarten and these lists were delivered to the couples of psychologists who were trained as facilitators for the intervention. The facilitator couple were the ones who contacted the parents to make the invitation to the intervention again, coordinate schedules and resolve doubts regarding the intervention.

### **7.3 Participants**

This study is part of the regular Fondecyt project 1130786 and the sample of this study are the mothers that are part of the sample of that project. The sample consists of 125 mothers at the basal level. All are mothers of preschool children between 3 and 4 years of age, who attend kindergartens of the public system located in peripheral boroughs of the Metropolitan Region of Santiago, of low and medium-low family socioeconomic level. The total of mothers is divided into two groups, one experimental (N = 26) and one control (N = 99).

Regarding inclusion and exclusion criteria, mothers of children aged 3 to 4 that freely accept to participate in this study, being excluded those mothers younger than 18 years, with severe psychopathology and/or children physically or psychologically impaired.

*Sociodemographic characteristics.* In relation to the sociodemographic variables of the mothers, it is observed that on average they are 29.69 years old (SD = 6.55), 44% are single and 51% live with a partner or are married, and the remaining 4.8% are separated

(see Table 4). A 27.2% report that they do not work, 32.8% do so half-day or hourly, and 39.2% work full-time. It should be noted here that the mothers included in this study were recruited from JUNJI kindergartens, that is to say that the children, as a whole, are in the public preschool education system in peripheral boroughs of the Metropolitan Region.

Table 4

*Age, people at home, marital status, work status, and educational level of mothers*

	Mothers	
	<i>M</i>	<i>DE</i>
Age (years)	29.69	6.55
People at home	5.19	2.07
	<i>f</i>	%
Single	55	44.0
Married	35	28.0
Co-habitate	29	23.2
Divorced	6	4.8
Non-working	34	27.2
Part time job	23	18.4
Half-time job	18	14.4
Full-time job	49	39.2

In relation to the mother's Educational Level, a Chi-squared test was performed and the null hypothesis of the independence of the variables was rejected, observing a statistically significant association with the group to which they belong ( $\chi^2 = 42.632$  gl = 1  $p < 0.000$ ). Table 5 shows the differences of educational level by control and experimental group, having that in both groups the levels where there is greater concentration are technical studies or incomplete and complete secondary education and incomplete university studies. In the experimental group there is a higher percentage of complete university studies. However, these differences may be due to differences in the sample size of each group.

In the case of children in the sample, they are equally distributed in terms of sex, 49.6% girls and 48.8% boys. Almost two thirds of the sample of children attended nursery school before entering kindergarten and most are mainly in the care of the mother (65.5%), secondly of the grandmother and great grandmother (14.4%) and in the third place of both parents (8.8%).

Table 5

*Educational level by group of study*

	Intervention Group (N=26)		Control Group (N=99)	
	<i>f</i>	%	<i>f</i>	%
Do not respond	2	7.7	0	0
Basic incomplete	1	3.8	3	3.0
Basic complete	1	3.8	7	7.1
High S. incomplete	5	19.2	14	14.1
High S. complete	8	30.8	47	47.5
Universitary incomplete	6	23.1	21	21.2
Universitary complete	3	11.5	5	5.1
Post-graduate	0	0	1	1.0

Table 6

*Children's age, sex, hours/week at kindergarten*

	Children	
	<i>M</i>	<i>DE</i>
Age (months)	44.65	3.74
Hours/ week at kindergarten	37.7	9.12
	<i>f</i>	%
Girls	62	49.6
Boys	61	48.8
Attended to nursery	81	64.8
Did not attend to nursery	26	20.8

*Note.* Percentages do not add up to 100%, because of the missing data.

Table 7

*Frequent caregivers of the child*

	<i>f</i>	%
Both parents	11	8.8
Mother	82	65.6
Father	4	3.2
Grandmother/ great grandmother	18	14.4
Mother and grandmother	7	5.6
Others	2	1.6

Of the total sample of 125 mothers of preschool children, 26 mothers are those considered as an experimental group, since they attend at least three sessions (they must consider the two Videofeedback sessions compulsorily) established to remain in the intervention group. Those mothers who entered as an experimental group and who did not attend the minimum number of sessions were considered as a second control group (See Figure 6).

Table 8

*Attendance to intervention rate*

		<i>f</i>	%
Valid	No	99	79.2
	Yes	26	20.8
	Total	125	100.0

The sample attrition in this study was considerable (see Figure 6 and Table 9), but consistent with that reported by the literature about promotional programs, where participation rates averaged 30% (Baker, Arnold, & Meagher, 2011), and some kindergartens could be identified as those where mothers did drop out more frequently. The kindergartens with less adherence and more sample loss are 1, 5 and 6. This fact will be considered in further analysis because of the possible attrition bias: may alter the characteristics of the sample, as well as alter covariance of some variables like

loneliness, poor health, lower educational level, lower cognitive abilities, between others (Ahern & Le Brocque, 2005).

Interventions were held in the mornings, since they were the hours suggested by the kindergartens themselves, since in those times they hold meetings with parent and in order to facilitate adherence; that the mothers would take their children and stay for the intervention in the same kindergarten. On the other hand, the evaluations were carried out in schedules based on an agreement between the evaluators and each mother in particular.

The main reasons associated with the sample loss are related to: a) the time of year in which interventions are held, most of them during winter, which influenced the attendance of the children to the establishment and therefore of their mothers; b) the invitation and attendance to the intervention was open to all the parents of children between 3 and 4 years of age, however, it is possible that there are cases in which the kindergartens intentioned the attendance of certain mothers, which were to have caused rejection by them and that they would have been the most complex cases and of low adherence to any type of intervention; c) the existence of other interventions focused on parenting in the kindergartens that were part of the sample was safeguarded, however the existence of other varied interventions and alternative programs to the kindergarten that are free for caregivers of small children, may have been influential; d) the confidentiality of the information contained in the evaluations and that contained in the evaluations and that would be contained in the interventions was safeguarded and guaranteed, however, the invitation to participate in the intervention and the research in the case of the control group was carried out by the same kindergarten, which may have influenced the parents' desire to participate in the transfer of information from the team executing the intervention and kindergarten.

Table 9

*Number of participating mothers in each kindergarten*

	Grupo experimental		Grupo control	
	N	% pérdida	N	% pérdida
Basal assessment	77	-	48	-
Second assessment	34	55.8	28	58.3
Follow-up assessment	13	61.8	18	35.7

	Assess. 1 (N)	Assess. 2 (N)	Assess. 3 (N)
Jardín 1 GE	7	5	0
Jardín 2 GC	15	14	9
Jardín 3 GE	19	11	4
Jardín 4 GC	18	10	8
Jardín 5 GE	31	5	1
Jardín 6 GC	15	4	1
Jardín 7 GE	20	13	8

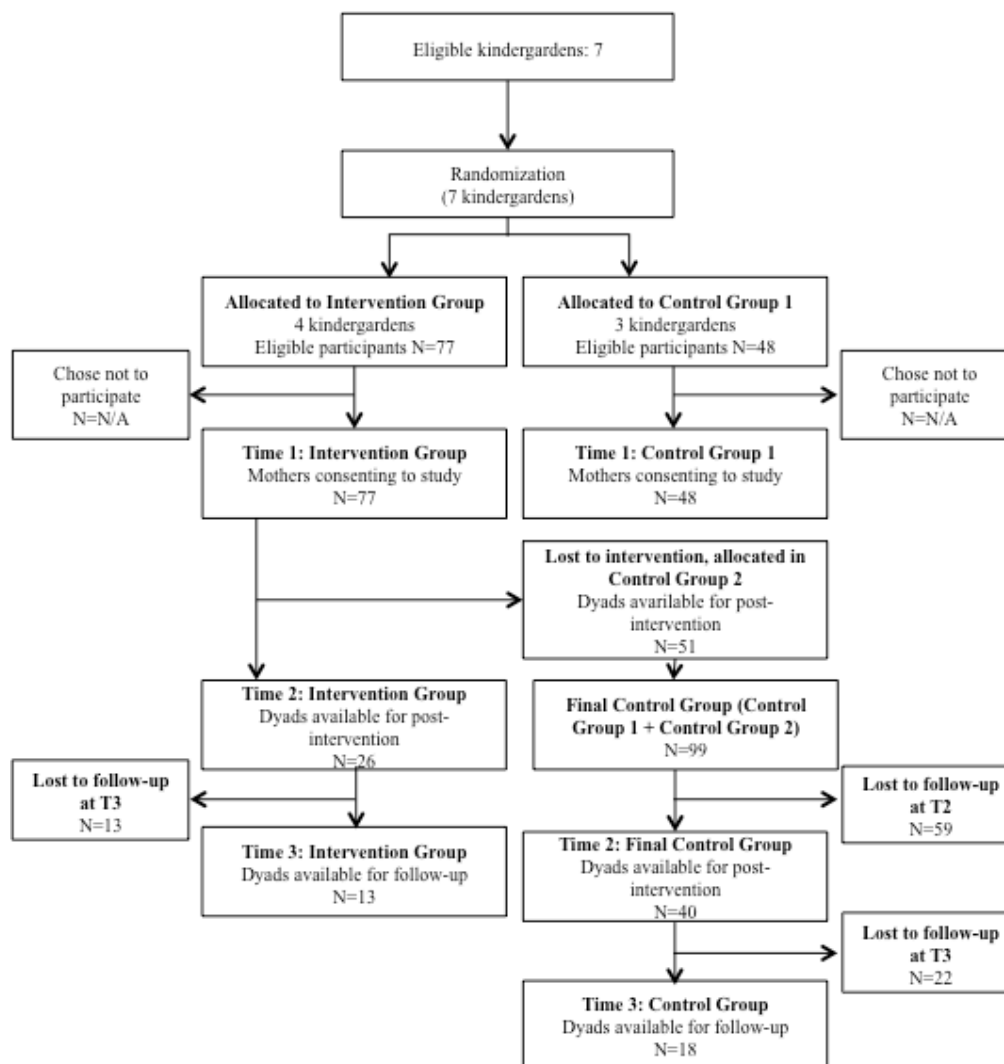


Figure 6. Study Flowchart

#### **7.4 Intervention**

The "Emotional development, attachment and mentalization" intervention (Santelices, Farkas, Pérez, Zapata, Krebs & Olhaberry, 2014) was designed in the context of the Regular Fondecyt project No. 1130786 (Principal investigator: M. Pía Santelices) at the School of Psychology of Universidad Católica de Chile.

The objective of the intervention is "to promote a mentalizing attitude in a context of secure attachment" in parents of pre-school children. This study considers the pilot experience and the first implementation of the intervention, which was carried out in JUNJI kindergartens located in peripheral boroughs of the Metropolitan Region of Santiago.

This intervention was conceptualized as preventive and for a non-clinical population. It uses a group modality of intervention and focuses on the capacities and relational resources of adults to provide the child with a healthy socio-emotional development. The six facilitators of the intervention, psychologists with clinical experience and/or postgraduate studies, who worked in couples at each intervention carried out (N =6), attended a 2-day training session with the authors of the intervention and had 2 group supervision sessions of 3 chronological hours in the course of the implementation of the interventions, especially dedicated to the preparation and supervision of Videofeedback sessions that are detailed hereinafter.

Before starting the group interventions, a diagnostic evaluation was conducted in which the mother was evaluated through an interview and self-report questionnaires answered in the company of a trained evaluator; and to the mother in the interaction with the child through a situation of free play and a storytelling situation; situations that were filmed and then coded with specialized instruments. These same films were used in the interventions during the Videofeedback sessions. The intervention with



Videofeedback considers the use of segments of these videos, which are used for therapeutic purposes according to the main needs detected in each dyad and according to the focus of the intervention.

Each intervention group considered the attendance of 4 mothers on average and 6 interventions were held in 4 different kindergartens. The children did not participate in the group sessions, but only in the evaluation moments.

The same manual was developed with two specialized versions (for monitors and for caregivers), designed specifically for caregivers of preschool children between 3 and 5 years of age, combining individual and group work modules, psychoeducational modules, therapeutic modules (analysis of videos in sessions) and a task module for work between sessions. The therapeutic modules focused on helping mothers recognize their strengths as mothers and in their relationship with their children, as well as identifying the challenges that arise in this same relationship. It should be noted that what is essential in this work is that the mothers would perceive that the group is a safe and reliable place to perform this exploration of the exercise of motherhood. In the same way as the manual suggests, the observation of the videos begins with behavioral and affective signals from the children towards their mothers, the focus of the mothers towards the reading of mental states in their children and in themselves changing little by little and recognizing the mutual influence between the two in the relationship that they establish.

The intervention considered 5 sessions that lasted approximately 120 minutes, had a weekly frequency and were carried out in the premises of the establishments. On occasions, sessions had to be canceled due to reasons of force majeure of the attendees. As already mentioned, these sessions were carried out by a facilitator couple and fidelity to the design of the intervention was ensured by the presential supervision and by

permanent communication between the group of facilitators and the authors of the intervention. The 5 sessions were: 1 - What is Mentalization? 2 - Communicating with each other; 3 - Recognizing each other; 4 - What to do in difficult times? 5 - Keep the mind in mind (see Figure 7).

Among the specific objectives of the sessions, it is important to highlight: a) know some basic notions of the concept of mentalization, b) identify the different levels of perception (external world, body, internal world), c) exercise attitudes that promote and strengthen mentalization, as curiosity and respect for thoughts and feelings, both own ones and those of others, d) identify the representations we have of ourselves, of children and our relationship with them, e) reflect and improve communication of one's own mental states, f) exercise the perception and reading of the thoughts and feelings of others, g) develop the ability to understand one's own thoughts and feelings and those of the children, h) face one's own limits regarding the knowledge of children, i) practice responses that promote mentalization.

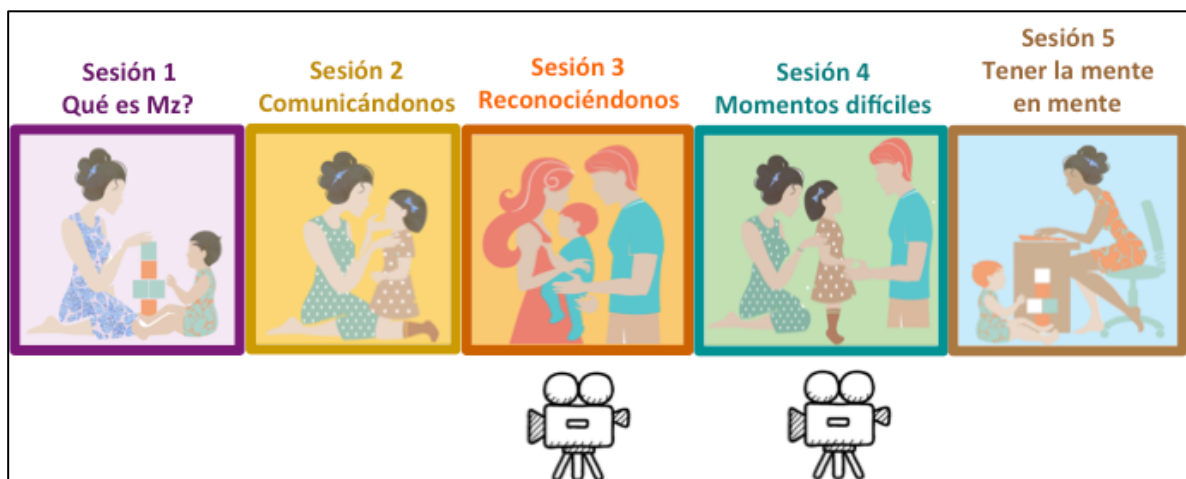


Figure 7. Intervention Sessions

### *Working with Videofeedback*

Working with videofeedback considers the observation of videos of caregivers interacting with their children as a therapeutic tool to improve the adult-child relationship, through the discovery that caregivers make of their own strengths in relation to their children. This technique was used in the context of the "Emotional development, attachment and mentalization" group intervention in sessions 3 and 4.

The analysis and the selection of sequences that will be used to work with the mothers in the same Videofeedback sessions of the intervention was carried out *before the Videofeedback sessions*. Each couple of monitors met, observed the complete video and they identified and in subsequent observations, they selected the positive and challenging sequences of the interaction, looking for the ones that are the most characteristic of the interactional patterns of each dyad and intentioning those that are useful for working parental mentalization and the quality of mother-child interactions.

This analysis work was recorded by each couple in a template, which they could also use to conduct the Videofeedback session. In the context of the intervention of this study:

- a. For session 3, the sequences which are most representative of the positive interaction patterns of the dyad were selected. For example: the mother engages in the game proposed by the child and is capable of playing "as if" (for example, making a baby sleep using a doll) or using shape toys in ways that do not necessarily represent that which its shape represents (for example: using a cube as a telephone).
- b. For session 4, the sequences that were most representative of the challenging patterns of the dyad interaction were selected. For example: the mother fails to interpret the play interests of the child by proposing

games that are not to his/her liking, to which the child responds by diverting his/her gaze towards other objects.

- c. Before the sessions, group supervision of the cases was also carried out with all the couples of monitors, an instance in which clinical analysis work of selected sequences and strategies for using the sequence in the videofeedback sessions was carried out. Both in the work of the couples and in the supervisions, it was determined what therapeutic use will be given to the selected sequences and the questions that could be asked to each mother and the group..

*Videofeedback sessions.* These sessions include the Videofeedback process itself, which was carried out with the mothers, from the previously selected sequences.

- a. In all the interventions, the observation of videos was carried out with the whole group of caregivers present. The process of reviewing videos was done by dyads, that is, the video of a couple is reviewed and analyzed and then the video of another one is reviewed and analyzed, and so on, but always incorporating all the participants in the analysis of each video.
- b. The selected sequences were shown and the reflection of the mother protagonist herself in front of said segments is favored. At this moment, the reflection of the mother of the video is prioritized and then the others were invited to comment or ask about the same video. Questions are asked; such as: "What is happening in this segment?", "How did you feel in that moment?", "How do you think your child felt?", "What makes

you think your child felt that way? "," What do you think your child thought / felt / wanted in that moment? "

- c. From the questions about the selected sequences, it is intended that the mother is able to specifically see how she and her child relate and influence each other and in turn, that she is able to identify her experiences and those of her child in that relationship.

*Role of the facilitator couple during the intervention and Videofeedback sessions.*

During the training and supervision of the facilitators for the interventions, it was promoted that in their role as monitors:

- Have a cell phone number of participants to check attendance and regulate the start.
- Define roles between the same monitors and alternate them depending on each couple. For example: a monitor directs the activities and favors contact and empathy with and among the participants, while the other protects formal aspects (time, tasks, materials, work focus) and a balanced participation (no one speaks too much or does not say a word).
- Arrive early to each session and coordinate the work each one would do in each of them, agreeing on their respective tasks and functions.
- Bear in mind that groups are a unit in themselves and that therefore the characteristics of each group will depend both on the participants that integrate it and on the style of each monitor that leads it.
- Remember that their role as monitors consisted in transmitting information, guiding activities and encouraging individual and group reflection, avoiding exercising a supervisory role in front of the work of

the participating caregivers. Not judge practices or opinions of caregivers and, on the contrary, promote reflection on them.

- Positively value participation in the group, demonstrating a genuine interest in the comments of the participants and an empathic attitude towards them, especially when they recount their difficulties or deficient aspects.
- Regulate the sessions, clearly orienting the activities and tasks, in order to maintain a balance between the people who activate more actively and more passively.

During the training and supervision of the facilitators for the interventions, a mentalizing attitude was promoted that, in turn, fostered mentalization in the caregivers and for this purpose, it was recommended:

- To keep an attitude of curiosity in the face of what is stated by the participants, that is, an attitude of "not knowing" that expresses interest in "understanding better".
- To promote a secure attachment, by transmitting an experience of security and trust to the participants, in a framework that promotes sensitivity and allows them to explore their mental states.
- To promote a level of emotional commitment that is neither too intense nor too unattached.
- To invite participants to see their experiences from multiple perspectives.
- To validate the participants' experience before offering alternative perspectives.

- In pertinent cases, to reflect to the participants their own emotional states, marking the emotions that appear at a certain time. This aims at helping the participants to strengthen the regulation capacity of their own emotions
- To allow all the members of the group to have an active participation, avoiding protagonisms.
- On the teaching of contents in the intervention sessions, it was recommended to keep in mind: a) to give instructions taking care that all the participants have understood, b) to answer the doubts or concerns to the group in general, avoiding to fall into a particular consultation of clinical type, and c) to recognize the times when the answer to some doubt of the participants is not known and to answer that this information will be found out for the next session, instead of improvising a response that could be erroneous.

## **7.5 Instruments**

***Background Sheets.*** Questionnaire developed by the same research team that includes the registration of various socio-demographic and family group variables.

***Five Minutes Speech Sample – RF.*** (*FMSS-RF*; Adkins & Fonagy, under review; Adkins, Luyten & Fonagy, under review; Bammens, Adkins & Badger, 2015). It was developed in order to assess ways how adults tend to speak about their children, initially to predict parental behavior and adaptive difficulties in children. Later, it has been used to assess other parenting areas as reflective function. It considers a brief application in time and interview asking the adults to speak 5 minutes about the child; this answer is recorded and then transcribed and coded. In order to access PRF, questions used for

this study were: *what is your child like?, how do you feel about your child?, please tell me about a recent conflict or difficult time with your child, how did you solve it and why do you think she/he behaved that way?.*

**Reflective Functioning Scale.** (*RF Scale*; Fonagy, Target, Steele & Steele, 1998), was applied in order to code PRF in FMSS. This scale is a manual developed to code RF with the Adult Attachment Interview (George, Kaplan & Main, 1985), which has been applied to other kinds of interviews with the scale's authors authorization. This instrument considers 4 indicators of RF; a) awareness of the nature of mental states; b) explicit effort to tease out mental states underlying behavior, c) recognition of the developmental aspects of mental states, d) mental states in relation with the interviewer. The results of this scale are in an 11-point range, from -1 (*negative*; it reflects an inability to recognize own and others' mental states, sometimes in a hostile or rejective) to 9 (*exceptional*; ability to talk in a dynamic and interpretative way about own and other's experience). The cut-off point to evaluate presence or absence of RF is 5 and the average scores found in several samples tend to be 4 or 5, that is, moderate RF. However, it is possible to identify clear differences in scores below or over 3, and that is why it has been suggested that 3 is the cut-off point to differentiate people who fail and/or reject RF (below 3) and those who are able to give some explanation using mental states (over 3) (Gullestad, Johansen, Høglend, Karterud, & Wilberg, 2013). The reliability of certificate coders to study was between .84 and .97.

**Evaluation o the Mentalization of the Significant Caregivers** (Farkas, Strasser, Badilla, & Santelices, 2017), used to evaluate the capacity of the mothers to use mental language in interaction with their children in a dyadic situation of shared reading with



two incomplete histories that elicit the use of mental state language. For each story, the mothers were given a vignette to begin their story with. For example, the vignette for Story 1 was “*Carlos/Camila is playing with his/her favourite car/doll in the yard when he/she is called for lunch time. When he/she finishes with his/her lunch, he/she remembers that he/she left his/her car/doll alone in the yard, and he/she returns to look for it...*”. The initial instruction to the adult is “*I invite you to tell 2 stories to \_\_\_\_\_ (name of the child). Each story is accompanied by a set of pictures. The particularity of these stories is that they are unfinished, and you must complete them using ideas that you create. You can take the time that you deem necessary to finish the story*”. The entire event was filmed and then transcribed and coded, by trained coders. The coding system has an adequate inter-judge reliability in a range of .47 to .91 in relation to the presence or absence of mental and non-mental categories in the speech.

In this study references to desires, cognitions and emotions were considered, following the literature regarding the fact that mothers adapt their language according to the child's age and that they tend to talk more about desires until 15 months of age, when they begin to increase the use of emotions and cognitions and then, at 24-33 months of age, they tend to talk more about cognitions and thoughts than in earlier stages (Ruffman et al., 2002, Taumoepeau & Ruffmann, 2006, 2008).

***Parenting Interactions with Children: Checklist of Observations Linked to Outcomes***

(Piccolo; Roggman et al., 2013a, 2013b). Instrument that will be used to evaluate the videos of interaction in free play, which are obtained in 3 moments of evaluation of the study. It is an observational questionnaire composed of 29 positive and cooperative parental behaviors with children between 10 and 47 months of age. It considers 4 interactional domains in its evaluation: affection, receptivity, encouragement and

teaching. It is designed to observe brief interactions (5-10 minutes) live or videotaped and can be completed by professionals or technicians working in the family support area. The original scale has a total inter-reliability of .77 and an inter-judge reliability of coders of different ethnicities of .80. It has been tested in different cultures and is being implemented and validated in Chile by the regular Fondecyt project number 1141118.

Total PICCOLO scores, summing across domain scores, ranged from a minimum score of 6 to a maximum score of 58, with above average scores (highest 16% of scores) over 47 at age 14 months and over 49 at ages 24 and 36 months and below average scores (lowest 16% of scores) under 31 at 14 months and under 33 at 24 and 36 months (Roggman et al., 2013a, 2013b).

It should be noted that this instrument was designed to assess the quality of the interaction of adults with children between 10 and 47 months of age, and can be used with older children, with the exception that there is not enough scientific evidence to indicate the reliability of the instrument for older children and this sample considers older children for the second and third evaluations. An example of this type is the study by Bayoglu and colls. (2013) that validates the instrument in a Turkish sample and obtains good results by including a sample of children over 4 years of age obtaining an acceptable and good inter-judge agreement (.77 to .93) and an acceptable reliability for the general scale and each dimension, with an average  $M = 41.95$  ( $DS = 10.93$ ) that is similar to that of this study. On the other hand, the reliability of the instrument was acceptable only for the general scale and not for its subscales, which reduced the possibilities of analysis of results with this instrument.

For this sample, the reliability of the total scale had a Cronbach's alpha .78 and its subscales obtained lower than acceptable reliability: Affect, reliability alpha .502; Responsivity, reliability alpha .72; Encouragement, reliability alpha .612; and Teaching,

reliability alpha .44 and .68 excluding item 4. It is for this reason that the total score of the scale was used without distinguishing by its subscales for all the analyzes of this study.

***Parental Stress Index – Short Version (PSI-SF;*** Abidin, 1995). This instrument is a self-report questionnaire that allows to evaluate levels of dysfunctional parenting and difficulties in family adjustment. It was developed for adults with children up to preschool age, but it might be used with older children. The short-version was used in this study considers 36 questions with Likert scale from 1 to 5 points, giving a general score and 3 subscales scores of parental stress, difficult interaction and difficult child, all of them with cutoff points that allow to identify low stress, normal stress and clinical stress. It has a test re-test reliability between .68 and .85 and internal reliability between .80 and .91. The cutoff point of the original scale is 86 points in the main score; parental stress subscale 33, difficult interaction subscale 26 and difficult child 33. There is a recent Chilean validation of the questionnaire done in a younger population that found an internal consistency alpha of 0.92 for the general scale and between 0.81 and 0.89 for the three subscales (Aracena, Gómez, Undurraga, Leiva, Marinkovic, & Molina, 2016). In this sample, reliability was Cronbach's alpha .905. Another Chilean study of 137 low socio-economic income mothers resulted in a Cronbach's alpha of .943 (Farkas & Valdés, 2011).

***Experience in Close Relationships - Short Form (ECR-SF;*** Brennan et al., 1998; Alonso-Arbiol et al., 2007 para la versión española; Spencer, Guzmán, Fresno, & Ramos, 2013; Wei, Russel, Mallinckrodt, & Vogel, 2007). This self-report questionnaire consists of 12 items that evaluate the two dimensions of romantic

attachment, anxiety (of relationships), and avoidance (of intimacy) (Obegi, Morrison and Shaver, 2004). Each dimension corresponds to a scale, which consists of 18 items evaluated on a 7-option Likert scale, where 1 means "totally disagree" and 7 "totally agree". The scores for each dimension of the attachment are obtained from the average of the values of the items corresponding to each one. Examples of items would be "I am very concerned about the possibility of losing my partner" (anxiety scale item 8), and "I prefer not to show my partner my personal feelings" (avoidance scale item 1). In addition to the dimensional evaluation, the ECR allows the distinction of 4 categories of attachment in the adult: secure, fearful, preoccupied and unattended, resulting from the combination of both dimensions. In this study, the reliability of the scale was Cronbach's alpha .743.

*Ages and Stages Questionnaire – Social-emotional (ASQ-SE;* Squires & Bricker, 2009). This is a screening questionnaire that may be completed by parents or interviewer. It allows to determine the level of risk in children between 3 and 60 months of age, assessing 7 areas (self-regulation, instruction following, communication, adaptive behavior, autonomy, affect and interactions with others) giving a general score where the higher the score, the higher the risk in social-emotional development. It considers different forms every 6 months and specific cut-off points for each of them. Internal consistency of the original scale was high with an overall alpha of 0.82, and test-retest reliability between parents' classifications was 0.94. The cutoff points in the original sample were 57 points for children between 33 and 41, and 70 points for children between 42 and 53 months of age.

In this study, the reliability of the scale for the 48-month form was Cronbach's alpha, .705 and Cronbach's alpha .741 for the 36-month form.

Table 10

*Assessments administration*

Time point	FMSS-FR	MS-References	Piccolo	PSI	ECR	ASQ-SE
<b>Baseline</b>						
Mothers	-	√	√	√	√	-
Children	-	-	-	-	-	√
<b>Before VF (mothers)</b>	√	-	-	-	-	-
<b>After VF (mothers)</b>	√	-	-	-	-	-
<b>Post-intervention</b>						
Mothers	-	√	√	√	√	-
Children	-	-	-	-	-	√
<b>Follow-up*</b>						
Mothers	√	√	√	√	√	-
Children	-	-	-	-	-	√

Note. VF=Videofeedback. \*Follow-up assessment was conducted 6 months after finishing intervention.

## 7.6 Data analysis

Data analyses were done in the statistical environment “R” (Development Core Team, 2008).

### 7.6.1. Data analysis at baseline

Before performing the statistical analysis of the data, the presence of atypical values and the distribution of the data of each variable were evaluated. From the Kolmogorov-Smirnov and Shapiro-Wilk tests was observed that Parental Stress and Anxiety and Avoidance in attachment are normally distributed ( $p > .005$ ). In the case of the risk in the Socio-emotional Development, the References to Mental States and the Reflective Parental Function, the tests showed that they are not normally distributed ( $p < .005$ ) and so, based on the Q-Q charts, it was considered that the deviation was not enough to dismiss the use of parametric tests. Work was carried out with a level of significance  $\alpha = .05$ .

Exploratory analysis was done through descriptive statistics (frequency, cross tabulation, chi-square test, variance, mean, histograms) for each variable; socio-demographic and study variables (Parental Reflective Functioning, Parental Stress, and Socio-emotional Development).

First, the mothers and their preschool children were characterized based on their socio-demographic characteristics and secondly, mothers were characterized according to the levels of parental stress, anxiety and avoidance in attachment, PRF, references to mental language in a story situation, and quality of interactions in free play situation with their child. The child was characterized according to the risk reported by his/her mother in the social-emotional development.

Second, Pearson, Spearman and Chi-squared associations were estimated to evaluate the relations between the study variables.

Afterwards, paired samples t-tests to assess differences in the means of the parent's variables and different models of multiple linear regression analysis were performed in order to characterize the sample and the pre-intervention levels of each variable. The dependent variables were: child's social-emotional difficulties, quality of the mother-child interaction, and mother's references to mental states; and independent and moderator variables were attachment anxiety and avoidance, parental reflective functioning, and parental stress.

In the case of PRF, a multi-level regression model is performed to evaluate and subsequently account for the nested nature of the data in kindergartens (Kenny, Kashy & Cook, 2006) using the "nlme" package (Pinheiro, Bates, DebRoy, Sarkar & R Core Team, 2017) of linear and non-linear mixed models for statistical software R. First, a null model (without predictors) was performed to assess the degree to which the variability of PRF was explained by the kindergarten. This model allowed to appreciate

that 21.2% of the variability of PRF is explained by the kindergarten, which justifies the use of a multi-level model to thus avoid the probability of type I error associated with ignoring the dependence of the data on the group. The same occurs in the second and third evaluations, where their percentages vary to 15.6% and 41.1%, respectively.

### ***7.6.2. Data analysis over the effect of the intervention***

Three measurements are used for these analyzes: pre-intervention, post-intervention and follow-up 6 months after the intervention ended.

#### ***General effect of the intervention***

In order to describe and explain the effect of the intervention, ANCOVA and multiple linear regression models were conducted, where child's social-emotional difficulties, quality of the mother-child interaction, and mother's references to mental states were dependent variables; and independent and moderator variables were attachment anxiety and avoidance, parental reflective functioning, and parental stress.

#### ***Effect of the use is Videofeedback***

In order to evaluate the effect of the use of Videofeedback, the PRF evaluations are used before and after the sessions and the follow-up, for both groups. Linear regression models are carried out releasing the intercept per kindergarten, and the ANCOVA tests controlling per kindergarten.

### ***7.6.3. Cluster analysis***

Hierarchical and non-hierarchical analysis were conducted in order to evaluate the existence of profiles among mothers of the sample at the baseline measurement, following Hair, Anderson, Tatham y Black's (1999) recommendations. The solution

provided by the cluster analysis at the baseline evaluation will be compared with data from each same group at second assessment.

The ANCOVA tests, in their entirety, fulfilled the homogeneity assumptions of error variance, normal distribution of errors and independence of errors.

The requirements for OLS (Ordinary Least Squares) multiple linear regressions analysis were assessed for each regression model (Stevens, 2009). First, an analysis of influential cases was performed on each model, considering those with a Leverage value greater than 2 points, and those with a Cook distance greater than 1 point as potentially influential. No case with these characteristics was found. Then, variance inflation factors (VIF) were reviewed to ensure the absence of multicollinearity, also all the predictors were centered on their grand mean to favor the interpretation of the data and to avoid the problems of collinearity (Shieh, 2011). Normal distribution of residuals was assessed using a histogram of studentized residuals. Homogeneity of variance and linearity of the model were assessed plotting standardized residuals vs. standardized predicted values. All procedures used indicated no significant deviation from the requirements of multiple regression analysis.

## **7.7 Ethical considerations**

The main project (Fondecyt Nr. 1130786) counts with the approval of the Ethics Committee of the Catholic University of Chile, and of the Chilean National Commission of Scientific and Technological Research. This study, in particular, counts with the approval of the Ethics Committee of Human Research of the University of Chile (see Annexes).

All participants of the study signed the Informed Consent (see Annexes) of the



main project, where it was explained the goals of the research considering also their benefit and risk, as well as the voluntary nature of their participation and the possibility to drop out the study, whenever they wanted. Informed Consent also explained about the confidentiality of the information achieved by assessment interviews as well as of intervention sessions, in all those cases of the experimental group. Control group participants did not know about the intervention that was being held in parallel in other kindergartens.

*Note.* Results are presented in three sections: in the first, descriptive, correlation and regression analyses of socio-demographic data and variables of interest of the study are presented, responding to the hypotheses with the regression analyses. The second section presents the results of the analysis of the general effect of the intervention and the results of the specific effect of the use of Videofeedback, responding to the hypotheses. In the third section, cluster analysis is presented.

## 8. Results

### 8.1 Section 1. Description of the sample and variables of interest

#### 8.1.1. Descriptive analyses

First, t-tests were performed for related samples and no statistically significant differences were found in the means of both groups for the variables of interest in the first pre-intervention evaluation, except in the case of the PRF, an aspect that will be addressed later.

#### *Parental Reflective Functioning*

Regarding mother's Reflective Functioning (see Table 11), only 11.4% of the mothers was qualified with levels 5 and 6, which means that they tend to use mental states to talk about their children and were capable of having them in mind. 43.2% of the sample was categorized with levels 3 and 4, which means that these mothers use a language about mental states in a rudimentary way, without being able to use it to explain behavior or other inner states. They also did not show signals of having their children in mind. The last 45.5% of the sample was qualified with level 2 or less, which means either that these mothers did not show signals of using mental states to refer to their children and their relationship with them, or they rejected to use the reflective function. These mothers might be incapable of having their children in their mind..

A majority of the sample (63.7%) was categorized between levels 2 and 4 in their PRF score, which indicates the plausible presence of mental states in their representations, but also an absence of reflective functioning.

PRF means in this study were considerably lower than those found in other similar studies (Bammens et al., 2015, Ensink et al., 2016, Fonagy et al., 1991, Slade et al., 2005): Bammens and colls., in a sample of adoptive parents using the same

instrument as in this study found that the average of the parents obtained 4.1; Ensink found 4.62 in mothers with children with secure attachment, 4.71 when they had avoidant children, 4.60 when these were anxious / ambivalent, and 3.94 when they were disorganized.

Table 11

*Mean and frequencies of Parental Reflective Functioning*

PRF category	Mothers	
	<i>M</i>	<i>DE</i>
	2.57	1.620
	<i>f</i>	%
-1	1	2.3
0	6	13.6
1	4	9.1
2	9	20.5
3	11	25.0
4	8	18.2
5	4	9.1
6	1	2.3

Fonagy and colls., 1991, found mother PRF = 4.48 and father PRF = 4.22. Slade and colls. (2005) found that those moms with more secure attachment patterns had on average 5.74 in PRF and those that were insecure 4.18; and in the case of the mothers themselves, but considering the attachment of their children, they found that mothers with children with secure bonds had an average of 5.64 in PRF, avoidant 5.40, anxious 3.0 and disorganized 4.3. In any case, the sample was small, but it coincides with results from other studies with larger samples PRF averages in this study were considerably lower than those found in other similar studies, as was reported before.

The results found in this study are more similar to those found in another Chilean study with a clinical sample of toddlers' mothers and fathers (León, Olhaberry, Hernández, & Sieverson, in press), who report that less than 25% of the sample showed

reflective capacity and that close to 65%, although they incorporate mental language in their narratives, they are not capable of reflecting on them; the remaining percentage showed low reflective functioning capacity. Below is an example of each PRF level found in this sample with quotes taken from the FMSS-RF instrument applied to mothers.

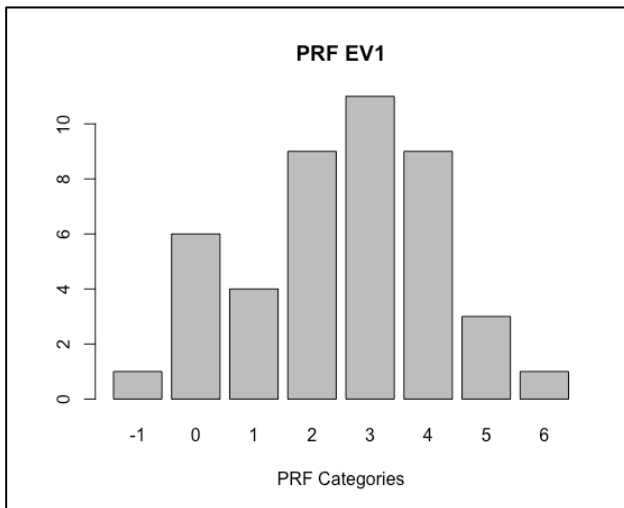


Figure 8. Frequencies of PRF categories

### **Category -1 “Negative”**

Example 1 (B02): *“I mean, the only problem I’ve had, which is, with her head thing. But, nothing else, I mean big conflicts ... I felt like ... I mean, the thing is the doctor told me that she could, that she could get bald, if I didn’t take her to the dermatologist, all that, he told me. Just like that, no holds barred that she could get bald, I mean for me ... my world closed up on me, see. I just had to do it and “in a flash”, get a private dermatologist, see, because if I begin to wait for a dermatologist, the one from the hospital I wasn’t, I wasn’t gonna have good results. That would be tragic for me, see, that my daughter ends up bald”* (-1).

Example 2 (HF13): *“Look, the fundamental problem is that she’s a real crybaby, recently I took advantage of the fact that it was hot and everything, because I was tired of nagging her, of, I do not know, smacking her, I do not know, I was really fed up with*

*the situation. Then what I did was get her wet, I put her in the shower, I took off her shoes and got her wet. There she kind of calmed down a bit, and now when she's going to start getting fussy, I say, "Now, remember what happened to you the other day I bathed you with cold water," because she doesn't like cold water"* (-1).

### **Category 1 "Absent but not repudiable"**

Example 2 (HF18): *"It's that she is used to it, because everyone here does what she says, so that's why she gets used to it. Because here, because the grandmother spoils her, because the father spoils her, because the other grandmother, that is, my daughter goes to her grandmother on her father's side and they wait on her hand and foot, they give her food in her mouth, she asks for something and they all run. Then she is used to everybody doing what she says ..."* (0).

Example 3 (HF24): *"Ehh no, no, I haven't had anything, not a single conflict. No, nothing, I think that Claudia is not so much like that, she doesn't get upset so much, what I mean, she, when she gets upset, she forgets fast"* (1).

### **Category 3 "Questionable or low"**

Example 4 (M37): *"... that its my daughter's birthday today, the sister, she got angry, she got upset. What did I do, I handed him the candles again so he wouldn't cry, so he would be quiet"* (2).

Example 5 (LA22): *"He gets a little angry about everything. The other day I was working and I was not much with him ... And he was disobedient and everything, fighting, being disrespectful, but OK ... Little by little, I've been talking with him, solving the problems, because I don't work anymore. Then, now I'm with him all day long"* (3).

Example 6 (MPP48): *“I think it has to do with him not having a yard. Then, when he goes out on the street, he tends to feel free, because he can run and run. I think it has to do a lot with that. Yes. Because it's like we go out and he feels, just set on not going back to the apartment. It stresses me not to have a yard (laughs). So I think that that's what it can be”* (4).

### **Category 5: “Defined or ordinary”**

Example 7 (PPA03): *“Sometimes I feel like I don't have tools to be a better mom. But there are times I feel like the super mom and that I do everything for my daughter, I mean, it's like ... They are different thoughts when I'm sort of tired, sort of exhausted ... When I lack strength, like ... Then it's when I can feel like I'm missing tools, but ... I've realized I'm a special mom”* (5).

Example 8 (PPA07): *“Then, I react differently and I nag her ... Yes, I've nagged her, on the occasions that I remember that she has behaved badly, it's like I don't have much tolerance in those moments ... Precisely in those days. Then of course, I am affected later by the fact that ... that I nag her or that I scold her, or that I speak very loudly to her. No, I don't like it really”* (5).

Example 9 (LA03): *“And it has always been that way, so I say, “Why could it be?” I also ask myself that question. Could it be a disease? If she were treated? I don't know. But my other daughter, for example, she's just the opposite. She's very skinny. Everything that's her sister's, she eats it. So, it's a constant struggle, because I can not allow that (laughs). That she eats more than she should. And at the same time, it makes me feel kind of sad if she changes, but if it's for her sake ... It's difficult and that she can get to understand it, is difficult”* (6).

### *Mental States references from mothers*

References to mental states in this sample (see Table 12) tend to coincide with the literature indicating that references to adults' mental states are adjusted according to the age of the children and that by age 3 adults talk to children more in terms of cognitions and thoughts and emotions than about wishes (Taumoepeau & Ruffmann, 2006; 2008) and other Chilean samples using the same instrument (Farkas et al., 2017, under review).

Although the basal level is higher than the control group in the first evaluation in the experimental group (see Table 13), there are no statistically significant differences between the experimental group ( $M = 4.4615$ ,  $SD = 3.501$ ) and the control group ( $M = 3.4719$ ,  $DE = 3.310$ ) in this moment ( $t_{(39)} = -1.2834$ ,  $p > .05$ ).

Table 12

### *Mental States references at baseline*

	<i>Mín</i>	<i>Máx</i>	<i>M</i>	<i>DE</i>
Desires and emotions	0	12	1.991	2.2863
Cognitions	0	8	1.2883	1.6754
Psychological attributes	0	4	0.4364	0.840
Total Mental States references	0	15	3.70	3.364
Words	72	624	248.71	109.772

Table 13

### *Mental States references among study groups at baseline*

	Experimental group (N=26)		Control group (N=89)	
	<i>M</i>	<i>DE</i>	<i>M</i>	<i>DE</i>
Total Mental States	4.46	3.501	3.47	3.310
Desires and emotions	2.60	2.67706	1.8140	2.14482
Cognitions	1.40	1.44338	1.2558	1.74347
Words	268.04	97.95	243.07	113.016

### *Anxiety and Avoidance in mother's attachment*

The attachment styles observed in this sample are not consistent with other studies carried out in similar and non-clinical populations, especially in the fact that the proportion of secure attachment is considerably lower than in other studies and greater in the fearful style, with high anxiety and avoidance. A meta-analysis comprising more than 10.000 AAI interviews found that in non-clinical samples, 58% of mothers were categorized as secure, 23% as insecure-avoidant, 19% as insecure-worried and 18% as non-resolved (Bakermans-kranenburg et al., 2009).

Table 14

#### *Frequencies of Attachment styles of mothers*

	<i>f</i>	<i>%</i>
Secure (low anxiety, low avoidance)	45	36.0
Fearful (high anxiety, high avoidance)	31	24.8
Preoccupied (high anxiety, low avoidance)	27	21.6
Disengaged (low anxiety, high avoidance)	22	17.6
Total	125	100.0

Other studies conducted with the same instrument (ECR-SF) in Chilean samples have found similar results in mothers' samples in relation to abandonment anxiety ( $M = 4.12$ ) and avoidance of intimacy in mothers ( $M = 2.77$ ), but somewhat different in the distribution of mothers' attachment styles: 21.2% secure, 46.2% preoccupied, 5.4% disengaged and 27.2% fearful. In a study in a small sample of mothers with and without depression and in which attachment was assessed with the *Camir*, validated in Chile by Garrido and cols. (2009), they found that those without depression 85.7% had secure attachment, 10.7% preoccupied and 3.6% dismissive. On the other hand, in those mothers with depression, it was found that only 28.6% had secure attachment, 31.1%



preoccupied, 7.1% dismissive, and 32.1% unclassifiable (Garrido, Guzmán, Santelices, Vitriol, & Baeza, 2015).

Table 15

*Anxiety and Avoidance in mother's attachment at baseline*

	<i>N</i>	<i>Min.</i>	<i>Max.</i>	<i>M</i>	<i>DE</i>
Anxiety	125	1.00	6.17	3.3480	1.05707
Avoidance	125	1.00	7.00	2.9973	1.12582

No statistically significant differences were found between both groups in the levels of attachment avoidance of mothers in the basal evaluation nor in the following two ( $t_{(34)} = -0.853, p > .05$ ;  $t_{(30)} = 0.81108, p > .05$ ;  $t_{(24)} = -0.74075, p > .05$ ) (see Table 15 for descriptive statistics). Neither were differences found between the groups in the levels of attachment anxiety in the first ( $t_{(41)} = -0.52682, p > .05$ ), second ( $t_{(35)} = 0.45613, p > .05$ ) and third measurement ( $t_{(29)} = 0.11553, p > .05$ ).

***Parenting Interactions of mothers***

The quality of maternal Parenting Interactions with their preschool children are consistent with studies of non-clinical population samples in Affection and Responsiveness, but not the same in Encouragement and Teaching. The validation study of the instrument (Roggman et al., 2013a, 2013b), carried out with more than 4500 videos of mothers interacting with their children at 14.24 and 36 months of age belonging to 2.048 families of different ethnic groups, found that at 36 months of age, mothers scored 40.59 ( $SD = 7.68$ ) on the full scale and in the sample of this study in the first evaluation they scored 40.24 ( $SD = 7.578$ ), which is very similar.

We found also similar results to the validation study in Affect ( $M = 10.45, SD = 2.07$ ), and in Responsiveness ( $M = 11.29, DS = 2.06$ ) (see Table 16 for descriptive

statistics). In contrast, in Encouragement subscales the American study scored higher than the sample in this study ( $M = 10.19$ ,  $SD = 2.30$ ), and Teaching scored lower than the sample in this study ( $M = 8, 61$ ,  $SD = 2.79$ ). On the other hand, in the full scale, the validation study scored similarly to the Chilean sample ( $M = 40.54$ ,  $SD = 7.68$ ).

No statistically significant differences were found between both groups in the basal levels of the general scale score ( $t_{(45)} = 0.3168$ ,  $p > .05$ ) nor in their subscales of Affect ( $t_{(43)} = 0.4944$ ,  $p > .05$ ), Responsiveness ( $t_{(50)} = 0.057921$ ,  $p > .05$ ), Encouragement ( $t_{(37)} = -0.50352$ ,  $p > .05$ ) and Teaching ( $t_{(49)} = 0.43704$ ,  $p > .05$ ).

Table 16

*Descriptive statistics for Parenting Interactions of mothers at baseline*

	Total sample			Experimental group (N=26)		Control grup (N=88)	
	<i>M</i>	<i>Min.</i>	<i>Max.</i>	<i>M</i>	<i>DE</i>	<i>M</i>	<i>DE</i>
Total	40.24	20	58	40.4	7.8	39.9	6.96
Affect	9.96	5	14	10.01	1.96	9.81	1.81
Responsiveness	11.37	2	14	11.38	2.64	11.35	2.1
Encouragement	8.77	2	14	8.70	2.38	9.00	2.7
Teaching	9.97	3	16	10.03	3.17	9.77	2.6

As already mentioned, the reliability of the subscales of the instrument is lower than acceptable, so these values will not be considered in subsequent analyzes.

***Parental Stress***

The level of parental stress reported by mothers (see Table 17) was in the normal range according to the cutoff points in the original scale. Nevertheless, there was a group of mothers in the sample with symptoms that qualified as clinically significant. Chilean studies conducted with samples of preschool mothers have found that reported stress is also found in normal ranges with a mean of  $M = 79.07$  ( $SD = 16.04$ ) and in this

study the mean was  $M = 72.059$  ( $SD = 19.534$ ) (Pérez, Moessner & Santelices, 2017) and the same happens in similar samples but younger children (Olhaberry, 2012).

No statistically significant differences were observed in the basal levels of stress in both groups, in the total score ( $t_{(33)} = 1.1432, p > .05$ ) and in their parental stress subscales ( $t_{(34)} = 0.34883, p > .05$ ), difficult interaction ( $t_{(32)} = 1.021, p > .05$ ) and difficult child ( $t_{(38)} = 1.6859, p > .05$ ).

Table 17

*Descriptive statistics for mother's Parental Stress at baseline*

	<i>Min.</i>	<i>Max.</i>	<i>M</i>	<i>DE</i>
Total	40.00	155.00	72.059	19.534
Parental stress	12.00	55.00	27.331	8.882
Difficult interaction with the child	12.00	51.00	18.889	6.960
Difficult child	13.00	49.00	25.881	8.003

### ***Risk in child's Socio-Emotional Development***

According to the risk in children's socio-emotional development, it can be seen that 32.5% showed risk in their socio-emotional development and the remaining 67.5% was below the cut-off score. While the children in this sample are within the range of problems compared to other similar studies, they are at the upper limit. Studies carried out with the ASQ-SE in samples of American children, found that the percentage of children that show risk in their socio-emotional development ranges from 11% to 37% (ASQ-SE Technical Report; Bian et al., 2017; Briggs-Gowan et al., 2013; Briggs, et al., 2012; Centro de Microdatos, 2010; Jee, Conn, Szilagyí, Blumkin, Bladwin, & Szilagyí, 2010; Olhaberry, León, Sieverson, et al., under review).

On the other hand, in comparison to screenings made with the same instrument in a representative sample of Chilean children, aged between 6 and 18 months (Centro de Microdatos, 2010) this sample is again in the upper limit of the range of socio-

emotional problems. This study reported that the risk in socio-emotional development increases through time; 17% of babies at 6 months of age presented risk in their social-emotional development, but in vulnerable population this amount increased to 79.9%; at 12 months of age general population has 15.6% risk, but in vulnerable children it increases to 18.8%, and at 18 months of age 23.2% of children are in risk, but in more vulnerable populations this amount rises to 29%.

Table 18

*Descriptive statistics for risk in child's Socio-Emotional Developmental at baseline*

	<i>M</i>	<i>DE</i>	<i>Min.</i>	<i>Max.</i>
General risk	55.98	30.08	0	165
Self-regulation	21.48	12.46	0	70
Communication	1.83	3.52	0	20
Complicance	4.76	5.03	0	20
Autonomy	9.02	4.32	0	25
Affect	1.54	3.01	0	15
Adaptive functioning	5.63	7.23	0	50
Interaction with people	8.9	7.9	0	35
	<i>f</i>	<i>%</i>		
SED risk	40	32.5		
No risk in SED	83	67.5		

No statistically significant differences were found between children of 36 and 48 months of age or among the reference groups in the first measurement.

***Correlation analysis at basal levels***

Partial correlation matrix was estimated between the variables of interest, and control variables as the socio-demographic ones in order to get preliminary results and to assess whether socio-demographic characteristics would be used as a control variable in the next analyses.

Given that there are statistically significant differences in the distribution by control and experimental group, a matrix of partial correlations is made, controlling by the mother's educational level (see Table 19).

Table 19

*Matrix of partial correlations: PS, MS, SED risk, Parenting, PRF, and attachment*

	1	2	3	4	5	6	7	8
1 Total PS	1.000	.193	.181	.311	-.211	.139	.220	.384*
2 Total words		1.000	.537**	-.044	.102	.179	.094	-.052
3 Total MS			1.000	.081	.361*	.157	-.130	-.156
4 SED risk				1.000	-.051	.102	.018	.046
5 Parenting					1.000	.036	.109	-.386*
6 PRF						1.000	.117	-.165
7 Anxiety							1.000	-.058
8 Avoidance								1.000

\*\* . Correlation is significant at level 0,01 (two-tailed). \* . Correlation is significant at level 0,05 (two-tailed).

*Note.* PS= Parental stress; MS= Mental States references; SED= Socio-Emotional Development; Interaction= Quality of parenting interactions in mothers; PRF= Parental Reflective Function; Anxiety and Avoidance= in mother's attachment

Given the association of the variables of interest with the mother's educational level, other matrices of correlation are made also controlling by educational level.

Positive and statistically significant correlations were found between the risk in the children's socio-emotional development and the stress reported by the mothers, observing that the greater the risk perceived by mothers in the exercise of parenting, the greater the risk in their children's socio-emotional development. In particular, the general stress scale ( $r = .563, p < .01$ ) and the difficult child subscale ( $r = .544, p < .01$ ) correlate more strongly than in the other parental stress subscales ( $r = .374, p < .01$ ) and difficult interaction ( $r = .466, p < .01$ ).

On the other hand, total stress correlates with the risk subscales in the DSE of self-regulation ( $r = .306, p < .05$ ), compliance ( $r = .335, p < .05$ ), communication ( $r = .212, p < .05$ ) and affect ( $r = .218, p < .05$ ).

It is also possible to see that the subscales of parental stress also correlate with the risk subscales in the DSE. The difficult child subscale correlates with self-regulation ( $r = .455, p < .05$ ), compliance ( $r = .398, p < .05$ ) and adaptive functioning ( $r = .223, p < .05$ ). The difficult interaction subscale correlates with affect ( $r = .318, p < .05$ ) and interaction with people ( $r = .254, p < .05$ ). Finally, the stress associated with the role correlates with compliance ( $r = .313, p < .01$ ) and communication ( $r = .253, p < .01$ ).

It is interesting to see that these correlations vary according to the age range of the child, observing that the general parental stress and in its subscales correlates in a statistically significant way with affection.<sup>1</sup> at 36 months of age ( $r = .586, p < .01$ ) and the difficult child subscale with adaptive functioning<sup>2</sup> ( $r = .457, p < .05$ ).

At 48 months of age, more statistically significant correlations were found, observing that the subscales and the general scale of parental stress correlated with self-regulation ( $r = .382, p < .01$ ). The same occurs with compliance ( $r = .303, p < .05$ ) and it is also observed that the difficult interaction subscale correlates in a positive and statistically significant way with affection ( $r = .279, p < .01$ ) and with interaction with people ( $r = .237, p < .01$ ) at 48 months of age.

It can also be seen that the risk in socio-emotional development correlates in a positive and statistically significant way with avoidance ( $r = .210, p < .05$ ) and attachment anxiety ( $r = .218, p < .05$ ). In the case of the compliance subscale, a statistically significant correlation was observed with avoidance in mother's attachment ( $r = .188, p < .05$ ), being in both cases that the greater the anxiety, the greater the risk in socio-emotional development and the adaptive functioning scale correlates positively and statistically significant way with attachment anxiety ( $r = .227, p < .05$ ).

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<sup>1</sup> For example: "Your child likes to be snuggled up and hugged"; "Your child is interested in things around him, such as people, toys, food"; "Your child seems to be happy".

<sup>2</sup> For example: "Your child sleeps for at least 8 hours in a 24-hour period"; "He/She hurts him/herself on purpose"; "He/She stays away from the dangers like fire, cars"

Table 20

*Matrix of partial correlations: SED risk, and PS*

	1	2	3	4	5	6	7	8	9	10	11	12
1 SED risk	1.000	.563**	.374**	.466**	.544**	.705**	.503**	.294**	.529**	.223**	.343**	.569**
2 Total PS		1.000	.831**	.761**	.846**	.306**	.335**	.212*	.152	.043	.231*	.172
3 PS - PS			1.000	.426**	.552**	.160	.313**	.253**	.079	-.051	.135	.097
4 PS - DIC				1.000	.500**	.122	.081	.189*	.066	.110	.318**	.254**
5 PS - DC					1.000	.455**	.398**	.074	.223**	.061	.134	.089
6 AR						1.000	.366**	.100	.356**	.094	.034	.385**
7 CF							1.000	.205*	.181	.084	.165	.166
8 CM								1.000	-.035	.070	.308**	.273**
9 FA									1.000	-.044	.092	.222*
10 AT										1.000	.155	.064
11 AF											1.000	.218*
12 IO												1.000

\*\* . Correlation is significant at level 0,01 (two-tailed). \* . Correlation is significant at level 0,05 (two-tailed).

*Note.* SED= Socio-Emotional Development; PS= Parental Stress; DIC= Difficult Interaction with the Child; DC= Difficult Child; AR = Selfregulation; CF = Compliance; CM = Communication; FA = Adaptive functioning; AT = Autonomy; AF = Affect; IT = Interactions with people

Table 21

*Matrix of partial correlations: SED risk, and attachment*

	1	2	3	4	5	6	7	8	9	10
1 SED risk	1.000	.728**	.508**	.316**	.525**	.231**	.362**	.574**	.218*	.210*
2 AR		1.000	.391**	.142	.351**	.109	.131	.362**	.158	.156
3 CF			1.000	.194*	.158	.113	.206*	.155	.060	-.051
4 CM				1,00	-.016	.030	.224*	.271**	-.112	.188*
5 FA					1.000	-.042	.090	.244**	.227*	.035
6 AT						1.000	.145	.089	.144	-.069
7 AF							1.000	.206*	.135	.086
8 IO								1.000	-.028	.144
9 Anxiety									1.000	.192*
10 Avoidance										1.000

\*\* . Correlation is significant at level 0,01 (two-tailed). \* . Correlation is significant at level 0,05 (two-tailed).

SED = Socio-Emotional Development; AR = Selfregulation; CF = Compliance; CM = Communication; FA = Adaptive functioning; AT = Autonomy; AF = Affect; IO = Interactions with people.

Total parental stress and its subscales also correlate in positively and statistically significantly way with anxiety and avoidance in attachment, with correlations with anxiety being slightly stronger.

Table 22

*Matrix of partial correlations: attachment, and PS*

	1	2	3	4	5	6
Anxiety	1.000	.215*	.319**	.293**	.262**	.357**
Avoidnce		1.000	.334**	.391**	.200**	.373**
PS - PS			1.000	.455**	.538**	.836**
PS- DIC				1.000	.509**	.772**
PS - DC					1.000	.839**
Total PS						1.000

\*\* . Correlation is significant at level 0,01 (two-tailed). \* . Correlation is significant at level 0,05 (two-tailed).

When controlling by educational level, the quality of the interaction does not correlate significantly with parental stress or with risk in the SED, but only with avoidance in attachment.

Table 23

*Matrix of partial correlations: attachment, and Parenting*

	Anxiety	Avoidance	Parenting
Anxiety	1.000	,67	-.100
Avoidance		1.000	-.207*
Parenting			1.000

\*\* . Correlation is significant at level 0,01 (two-tailed). \* . Correlation is significant at level 0,05 (two-tailed).



### 8.1.3. Regression models

***Hypothesis 1: "Parental Reflective Function will correlate with the other variables of interest such as the mother's Parenting Interactions, references to Mental States, Parental Stress, risk in Socio-Emotional Development."***

It is observed that PRF does not correlate in a statistically significant way with other variables of interest, however it is observed that Parenting and the distribution of the risk in socio-emotional development is not the same for all PRF levels (see Table 24).

An analysis of variance is carried out controlling per kindergarten, to evaluate if there are statistically significant differences in the quality of the maternal Parenting Interaction between the PRF levels and no statistically significant differences appear, however, qualitatively, differences can be observed.

Table 24

*Parenting Interactions of mothers among PRF levels at baseline*

	Failures in PRF (N=20)	Presence of MS, but without reflection (N=9)	Presence of PRF (N=14)	Min. – Max.
Quality of Parenting Interactions of mothers ( <i>M</i> )	40.00	38.44	42.43	20 - 58

A Chi-square analysis is performed and it is observed that there is no statistically significant association between the PRF category and the risk in socio-emotional development (below or above the scale cutoff score), but a certain trend can be observed with  $\chi^2_{(7)}=12.310$ ,  $p = .072$  which is directly proportional (Contingency coefficient = .468,  $p < .072$ ), which is consistent with the literature that reports that the higher the PRF

the better the SED level in children. When estimating if the degree of association is low, moderate or high, it is estimated that the maximum value of C which is  $Max(C)=0.71$ , that in a range between 0 (absolute independence) and 0.71 (absolute dependence), it can be said that the level of association that exists between the level of PRF and the SED is moderate, being that the higher the PRF, the lower the risk in the DSE.

Table 25

*Distribution of mother's PRF categories among children's SED risk at baseline*

	SED risk at basal assessment		Total
	Risk	No-risk	
	-1	0	1
	0	4	6
	1	1	4
Parental Reflective	2	0	9
Function category	3	2	11
	4	2	9
	5	1	3
	6	1	1
Total		11	33
			44

In order to evaluate the influence of parental stress and reflective function on the risk of children's socioemotional development, a multilevel regression model with a REML (Restricted Maximum Likelihood) estimator was performed since it offers more precise variance estimates for small samples (Peugh, 2010). In order to favor the interpretation of the data and avoid collinearity problems, all the predictors were focused on their grand mean (Shieh, 2011) and not on the group mean in order to avoid eliminating the variability provided by the kindergarten (Kenny, Kashy & Cook, 2006, Campbell & Kashy, 2002). In order to obtain standardized estimates, all variables were transformed to Z score. Following the notation of Preacher, Curran & Bauer (2006) for the effects of interaction, parental stress, whose relationship with risk in socio-emotional development was moderated by the PRF, was taken as a focal predictor. Only

the intercept according to the variable of level 2 (kindergarten) was allowed to vary, since it is necessary to have more units per group than random effects in the model (Kenny, Kashy & Cook, 2006).

The proposed model can be summarized in the level 1 equation:

$$\text{SED risk}_{ij} = \beta_{0j} + \beta_{1j}(\text{Parental Reflective Function}) + \beta_{2j}(\text{Parental Stress}) + r_{ij}$$

And in the following level 2 equation:

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

It is possible to observe in Table 26 (annexed) that, adjusted by variability contributed by belonging to the kindergarten, PRF is not a significant predictor of the risk in socio-emotional development ( $b = -2.382$ ,  $t_{(35)} = -0.159$ ,  $p = .268$ ), parental stress reappears as a significant predictor of risk in socio-emotional development on its own ( $b = 0.692$ ,  $t_{(35)} = 0.547$ ,  $p < .01$ ) and the interaction of both variables is not significant to continue with the analyzes ( $b = 0.115$ ,  $t_{(35)} = 0.181$ ,  $p = .243$ ).

***Hypothesis 2: "Anxiety and Avoidance in mothers' attachment will predict the mother's Reflective Function, Parenting Interactions, the levels of Parental Stress and the risk in the Social-Emotional Development of their children."***

As it was seen in the above results, PRF does not have a statistically significant correlation neither with anxiety and avoidance in mother's attachment. However, consistent with literature, there are another associations between attachment styles and both mother's and child's variables.

At Figure 9 and 10 it can be seen that both avoidance ( $b = 5.552$ ,  $t_{(108)} = 3.592$ ,  $p < .000$ ) and anxiety ( $b = 4.852$ ,  $t_{(108)} = 2.981$ ,  $p < .000$ ) in mother's attachment were significant predictors of the general parental stress reported by mothers at the basal

level, even considering the mother's educational level. This model explains 23.5% of the variance in total parental stress ( $F_{(7,108)}=6.061, p < .000$ ) (see Table 27 annexed).

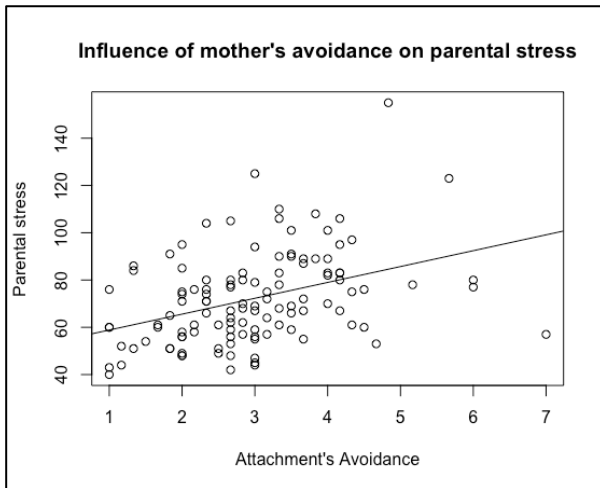


Figure 9. Influence of mother's Avoidance in attachment over Parental Stress

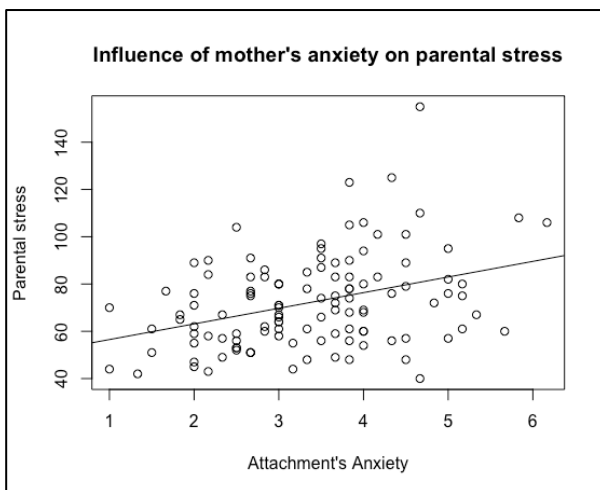


Figure 10. Influence of mother's Anxiety in attachment over Parental Stress

Particularly, a difference in stress levels can also be observed according to the attachment styles identifiable from the instrument (see Table 28).

Table 28

*Parental Stress among attachment styles of mothers at baseline*

Parental Stress/ Mother's Attachment	Secure	Fearfull	Preoccupied	Desengaged	Min. – Max.
Total Parental Stress (M)	64.395	82.862	74.884	69.052	40 - 155

Controlling by the educational level, it was possible to observe that the quality of the interaction correlated in a statistically significant way with the total parental stress ( $r = -.219, p < .05$ ) and very marginally with the difficult child subscale ( $r = -.200, p = .062$ ) and reference to desires and emotions ( $r = .195, p = .069$ ).

Also, consistent with the matrix of correlations, it was found that only avoidance in attachment is a significant predictor of the quality of maternal behaviors in interaction with her child, also controlling by the mother's educational level ( $b = -1.9305, t_{(111)} = -3.131, p < .005$ ) and this model explains 7.6% of the variance ( $F_{(2,111)} = 5.667, p < .005$ ) (see Table 29). Anxiety and avoidance in attachment is considered in these analyzes given the correlation that exists between both variables ( $r = .203, p < .05$ ) (see Figure 11 annexed).

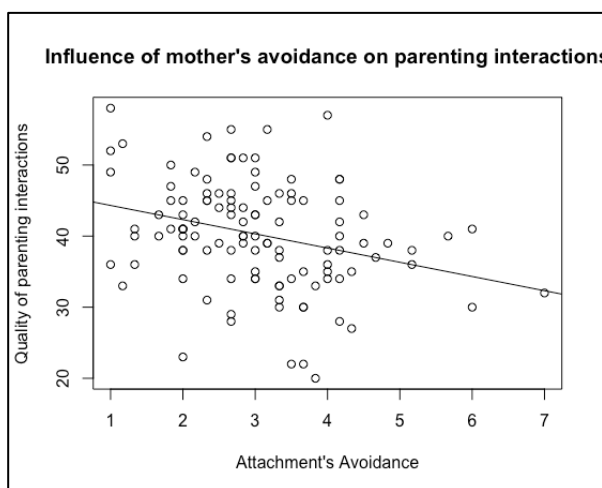


Figure 12. Influence of mother's Avoidance in attachment over Parenting Interactions

It can also be observed (see Figures 14 and 15) that anxiety ( $b = 5.956$ ,  $t = 2.281$ ,  $p < .000$ ) is a significant predictor of the total risk in SED and that avoidance ( $b = 4.552$ ,  $t = 1.826$ ,  $p > 0.05$ ) is not, even considering the mother's educational level. This model explains 14.38% of the variance in the total risk of SED ( $F_{(9,112)} = 3.257$ ,  $p < .005$ ) (see Table 30 annexed).

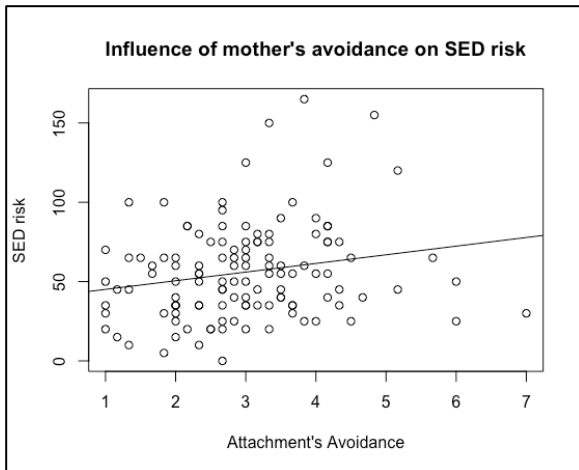


Figure 14. Influence of mother's Avoidance in attachment over child's SED risk

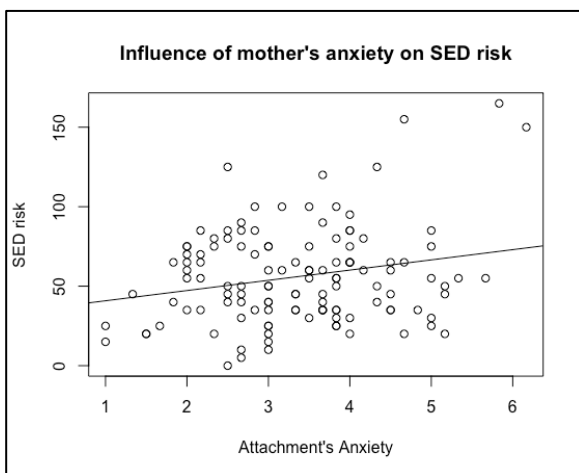


Figure 13. Influence of mother's Anxiety in attachment over child's SED risk

When disaggregated by each subscale of the instrument that assesses risk in the SED, it is observed that avoidance is a significant predictor of communication ( $b = 0.68645$ ,  $t = 2.179$ ,  $p < .0$ ) but this model is not significant ( $F_{(9,112)} = 0.9952$ ,  $p = .4483$ ).

Anxiety in attachment, on the other hand, appears as a significant predictor of adaptive functioning in SED ( $b = 1.704$ ,  $t = 2.537$ ,  $p < .05$ ), however, this model explains 4.5% of the variance and is not significant ( $F_{(9,109)} = 1.616$ ,  $p = .1195$ ).

As of these analyzes, it is observed that the Affection subscale is predicted by the educational level in several of its levels, being that the higher the NE, the lower the affection. This model explains 8.3% of the variance ( $F_{(9,112)} = 2.217$ ,  $p < .05$ ) (see Table 31 annexed).

### ***Parental stress as a predictor of other variables of the mother and child.***

As of correlation analysis, significant associations were seen between Parental Stress and other mother's and child's variables, and the role of avoidance and anxiety in mother's attachment is studied.

Regression models are used to evaluate the influence of stress on the quality of the maternal interaction and it can be seen that considering the influence of the mother's educational level, total stress and its subscales are not significant predictors of the quality of the interaction. In this analysis, only the full university educational level appears as a significant predictor ( $b = 14.074$ ,  $t = 3.137$ ,  $p < .005$ ), and the model explains a percentage of the variance of 10% ( $F_{(6,98)} = 2.926$ ,  $p < .05$ ).

The same does not occur in the case of the predictive value of stress over risk in SED, where it does appear as a statistically significant predictor, even considering the value of the mother's educational level. This occurs for the total risk in SED ( $b = 1.8267$ ,  $t = 5.891$ ,  $p < .000$ ) and for the self-regulation subscales ( $b = 0.6670$ ,  $t = 4.619$ ,  $p < .000$ ), and compliance ( $b = 0.23674$ ,  $t = 4.193$ ,  $p < .000$ ), and it does not occur for Communication, Affect, Autonomy, Adaptive functioning and Interaction with people.

The first model (for total risk in DSE) explains 30.04% of the variance of the total risk in SED ( $F_{(6,108)}=9.158, p <.000$ ), the second one explains 18.8% of the variance in Self-regulation ( $F_{(6,107)}=5.384, p <.000$ ) (see Table 33 annexed), and the third one explains 13.54% of the variance in Compliance ( $F_{(6,108)}=3.975, p <.005$ ) (see Table 34 annexed).

Mediation analyzes are performed with the hypothesis that parental stress mediates the relationship between the anxiety and avoidance variables in attachment and risk in SED and the quality of the maternal interaction with her child. The mediation hypotheses were verified by the analyzes proposed by Andrew F. Hayes (2013) in the statistical software SPSS.22. A Johnson-Neyman technique was also computed to obtain the 95% region of significance and to disentangle the interaction effect, a “pick a point” procedure was computed by selecting points above and below one standard deviation of the total parental stress variable (Hayes, 2013).

Although attachment appears as a significant predictor in regression models, in the mediation analysis (see Table 35) it can be observed that anxiety in attachment does not have a direct effect on risk in SED ( $b = 2.191, t = 0.887, p = .376$ ), but an indirect effect that is mediated by parental stress is observed. The effect of attachment on risk in SED is statistically significant for the highest values of the parental stress variable ( $b = 9.785, t = 2.206, p = .0294$ ), marginally for low levels ( $b = -5.403, t = -1.951, p = .054$ ) and not for medium levels ( $b = 2.191, t = 0.992, p = .323$ ). This model is statistically significant and explains 40% of the variance in risk in children's SED ( $F_{(4,109)}=16.175, p <.000$ ).



Table 35

*SED risk regressed by mother's Parental Stress and attachment Anxiety*

	Beta	SE	t-value	p-value	LLCI	ULCI
Constant	43.7026	7.4089	5.8986	.0000	29.0183	58.3868
Total Parental Stress	.6709	.1268	5.2904	.0000	.4196	.9223
Anxiety	2.1911-	2.4684	.8876	.3767	2.7013	7.0834
PS*Anxiety	.3885	.1451	2.6784	.0085	.1010	.6760
Mother's Educational Level	1.9861	1.8207	1.0909	.2777	-1.6224	5.5946
Pick a point	PS	Effect	SE	t-value	p-value	
	Low PS	-19.5488	-5.4038	2.7691	-1.9515	.0536
	Average PS	.0000	2.1911	2.2075	.9925	.3231
	High PS	19.5488	9.7859	3.2005	3.0576	.0028

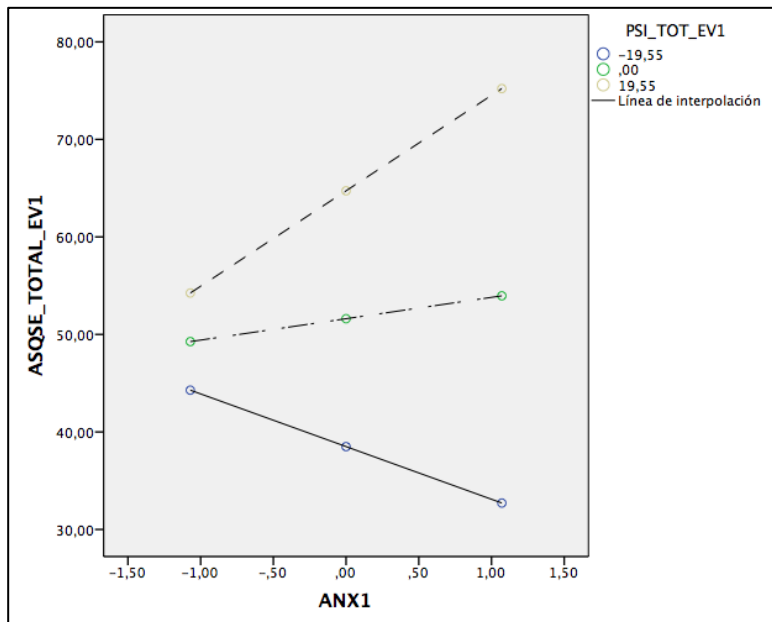


Figure 15. Moderator effect of the Parental Stress over the relation between mother's Anxiety in attachment and child's SED risk.

The quality of the mother-child interaction in free play situation is predictive of the total number of references to mental states in story-telling situation, even considering the educational level ( $b = 0.10827$ ,  $t_{(97)} = 2.494$ ,  $p < .005$ ). This model explains 6.9% of the variance, however, it is marginally significant ( $F_{(8,97)} = 1.972$ ,  $p = .057$ ) (see Table 36 annexed).

## 8.2 Summary of Section 1. Description of the sample and variables of interest

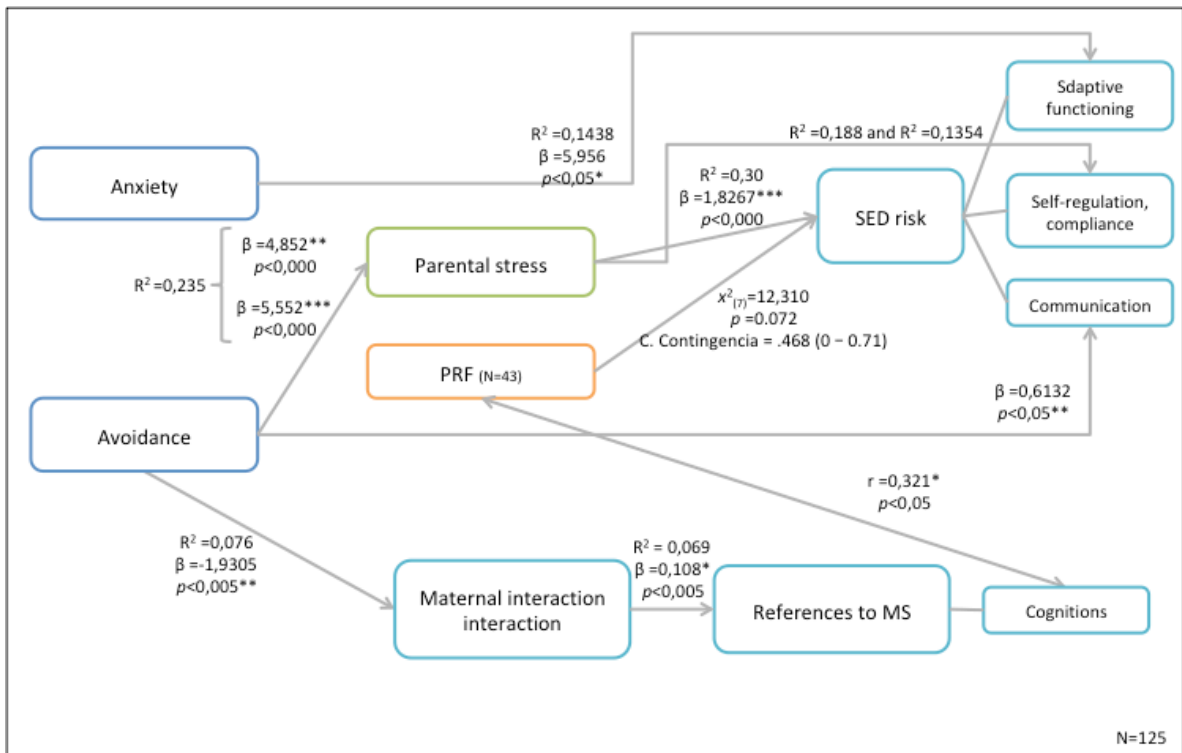


Figure 16. Comprehensive model of the outcomes at baseline assessment.

### 8.3 Section 2. Effect of the intervention

***Hypothesis 3: "The mothers who attend the intervention with Videofeedback, will show better levels of Reflective Parental Function in their narratives, compared to an intervention group."***

#### *Effect of the intervention in Parental Reflective Function*

First, it can be seen that the basal levels of both groups are different, as well as that PRF increases and improves in the GE and that it decreases and gets lower in the CG for the second evaluation, but it improves again for the third one (see Table 37).

Table 37

#### *Parental Reflective Functioning among assessments and groups of study*

	Experimental Group (N=19)		Control Group (N=24)	
	<i>M</i>	<i>DE</i>	<i>M</i>	<i>DE</i>
Basal assessment	3.68	1.108	1.68	1.492
Second assessment	2.94	1.879	1.33	1.915
Follow-up assessment	3.40	1.955	1.33	1.303

In knowledge of the nested nature of the data by kindergarten, ANCOVA tests are carried out controlling by the garden of belonging (other control variables are not included, since PRF does not correlate in a statistically significant way with other variables) and it is observed that there are statistically significant differences between the control and experimental groups in the PRF evaluation that are given by the intervention attendance ( $F_{(1,15)}=6.760 p <.05$ ) (see Table 38 annexed).

As in previous analyzes for PRF, in order to evaluate the influence of parental stress and reflective function on the risk in children's socio-emotional development, a multilevel regression model with a REML (Restricted Maximum Likelihood) estimator

was carried out given that it offers more accurate variance estimates for small samples (Peugh, 2010). Tables 39, 40 and 41 (annexed) present the results of the analyzes carried out for both evaluations.

It is possible that the differences that are observed in the first PRF evaluation are present, since the first PRF evaluation was carried out between the second and third session of the intervention, that is to say, having already held 2 intervention sessions. This will be discussed further.

When considering attachment anxiety and avoidance and parental stress in the analysis, it is observed that these variables do not contribute to the explanatory model of PRF.

The study by Bammens and colls. (2015) also found that in the post-intervention evaluation the control group worsened their scores and the experimental group improved their scores, but in this case finding statistically significant differences within and between both groups.

Then, by disaggregating by the type PRF, as of the four subtypes (consciousness of mental states, explicit effort to unravel mental states at the base of behaviors, evolutionary perspective of mental states, and mental states in relation to the interviewer), the presence of mental states but without reflecting on them, and the failures in PRF, other differences are observed between the groups.

Although the sample size is very small, it is interesting to see that the control group considerably increases the percentage of failures towards the follow-up evaluation, having decreased it for the second and having remained much lower than the experimental group. The control group significantly increases the percentage of presence of mental states.

As in previous analyzes, it can be observed that the most significant differences are between the groups and not within the groups, observing that the experimental group generally worsens in PRF for the second evaluation after the Videofeedback sessions and that it improves for the third follow-up evaluation, the presence of failures in PRF decreasing, the presence of MS without reflection decreasing and the presence of clear PRF increasing. In the case of the control group, the opposite occurs; for the second evaluation it presents fewer failures in PRF, less MS without reflection and more clear PRF, however, for the third evaluation its failure levels increase again, presence of MS without reflection increases and the clear PRF specimens disappear.

Following are excerpts from FMSS-RF interviews to exemplify the changes, as well as the absence of them, in the PRF in both experimental and control group.

Table 42

*Types of PRF among assessments in experimental group*

	Assess. 1		Assess. 2		Assess. 3	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
PRF Failures	3	15.8	8	50.0	3	30.0
Mental States without reflection	5	26.3	2	12.5	1	10.0
PRF Presence	11	57.9	6	37.5	6	60.0
Total	19	100.0	16	100.0	10	100.0

Assess. 1 (PPA07): *“She gets angry and she becomes like a disobedient person. So, I ... I feel that I'm very strict for my things (laughs). Eh ... It works like this for me, like "OK, things are like that, and that's it". Then, when I see that she does not pay attention to me, I scold her. "But Josefa, why do you do that, I'm telling you, that's not the way to do things, things are like this, or ... or ... Or you have to respect your mom, your parents, and ...”* (4).

Assess.2 (PPA07): *“she is super calm, she knows how to understand more, to listen more. I have realized, I do not know if it will be for the same thing of the*

*intervention, or maybe I'm the one who knows how to best to listen her, tend to her better, but she has been excellent these days..." (6).*

Assess. 1 (PPA08): *"... deep down I didn't know how, what to tell her when she told me that. Because she took it like "mh", "well", quiet. So that got me, it caught my attention. It was not like, like something sad or accusative, nor, like something like, you know, from, like, like light, I don'tt know, no, no. That got my attention. Actually, I did not know what to say, no, because, no, I can not deny it to her, because it's true, see, but I don'tt know what to say to her, or what explanation to give her" (4).*

Assess. 2 (PPA08): *"Well, I think that [I solved it] well. She had a wound under the eye and I tend to get very distressed. But yes, I had to resolve it, like contain her deeply, and after going over it, to see what had happened, to try to ... also to be more positive, in the sense that it was not so serious, that it has a solution and that. Yes, to be more positive, because every time she has an accident I get... for me it's terrible. Then it's kind of like running to the hospital and I don't know, see ... now I tried not to be so negative" (6).*

Assess. 3 (PPA08): *"I think it's part of her growth, because of a definition she's making of herself, of her tastes, of what she wants ... The other thing, too, to see how I react, to test me a little" (5).*

Assess. 1 (PPA30): *"Because of that, because he is afraid like ... to stay, like to stay alone. Eh ... like ... Let's see, once I left him sleeping and when he woke up, he was alone. In the room. In the other room, were my grandparents, whom I had left in charge, while I was taking husband somewhere. And then, he woke up, he got scared, when he saw nobody in the same room ... And he got scared" (3).*

Assess. 2 (PPA30): *"Sometimes I feel like a little desperate not to understand Agustin, but the intervention anyway made me understand a little more, and now I'm like applying techniques (...) suddenly he wonders off for nothing, could he have concentration problems maybe, but I don't know, a fly flies by and he watches the fly" (4).*

Assess. 1 (LA11): *“Mh, I don't know, because, it's that she is, she's a little fussy to eat, because she eats slowly and when her food gets cold, she doesn't like it cold. But ... I don't, I don't know, she eats everything, but you have to be patient with her, heat her food once in a while”* (3).

Assess. 2 (LA11): *“[She's afraid of the dark because] once, she was sleeping, well, I thought she was sleeping and with my parents started to watch a horror film. And she woke up and went to get me and, she saw ... in the horror film there was a dark house and the ghosts were coming out and that, then she got scared there and didn't want to be in the dark. Because of that.”* (3).

Assess. 3 (LA11): *“It's that she's always been a bad at eating, since she was born, so I think that because she doesn't like the fact that she is sitting at a table eating quietly all the time, that's why, she likes to move around a lot.”* (4).

Assess. 1 (MPP41): *“Ah, it's that when we go to buy and we don't buy her things, like she starts to cry, has tantrums. But that was Saturday. [I think he behaves like this] because when he is with his father, he behaves like this”* (2).

Assess. 2 (MPP41): *“No, it's that I haven't had any problems with Almendra. No, nothing.”* (0).

Assess. 3 (MPP41): *“When she don'tt want to do the homework, I just nagged her, see. That. It's that she tells me that she gets bored, things like that, she starts doing other foolish things and I scolded her and it was that”* (0).

Table 43

*Types of PRF among assessments in control group*

	Assess. 1		Assess. 2		Assess. 3	
	<i>f</i>	%	<i>f</i>	%	%	<i>f</i>
PRF Failures	17	68.0	10	66.7	9	75.0
Mental States without reflection	5	20.0	2	13.3	3	25.0
PRF Presence	3	12.0	3	20.0	0	0.0
Total	25	100.0	15	100.0	12	100.0

Assess. 1 (HF13): *“I feel happy with her and besides that anyway she says that when I am old she will take care of me. And she likes to do things anyway she's very*

*kind, if when you ask her to do something she does goes like this, but you have to treat her well, otherwise anyway she gets scared and she doesn't, she doesn't have a reaction” (1).*

Assess. 2 (HF13): *“Look, the main problem is that she is a real crybaby, recently I took advantage of the fact that it was hot and everything, because I was tired of calling her attention, of, I do not know, smacking her, I don't know, I was fed up with the situation. Then what I did was get her wet, I put her in the shower, I took off her sneakers and got her wet. There she kind of calmed down a little, and now when she's going to start to get fussy, I say to her, "Now, remember what happened to you the other day that I bathed you with cold water," because she doesn't like cold water” (-1).*

Assess. 3 (HF13): *“I feel happy with her, because she even helps me to tidy up, it's like she says nice things to me, she tells me she's going to make cakes, pastries, when I'm a grandmother” (1).*

Assess. 1 (HF18): *“Sometimes [I feel] like a little overwhelmed, sometimes overwhelmed because she doesn't, she doesn't obey me, I don't hit her either then I can't, sometimes I can't control her” (0).*

Assess. 2 (HF18): *“... when she gets to be too much for me I prefer to leave her alone, because I don't hit her or anything, but sometimes anyway she still deserves her slaps. On Sunday we were going to see my niece and she started screaming because she wanted to put on some leggings and it was too hot. Then I told her no, that she was going to put on shorts, and she no, she started kicking, screaming, and what I did, because she had already fed me up, I put her in the shower, because I had to bathe her, and I poured her a stream of cold water on her, to wake her up, she started to scream then, but then it was over, there she wasn't fussy any more. That's how it was” (-1).*

Assess. 3 (HF18): *“Then I punished her, I slapped her on her hands and put her in the room, because I don't like that attitude that she has throwing things” (-1).*

Assess. 1 (M38): *“What happens is that anyway, for example, she now has a brother, my son is one year old, and she more or less since the time he was born she is more rebellious than before, before it wasn't so much, she was manageable, now she's a little more complicated, but I think it is more than anything to get attention, because*



*anyway here my family is very close to the boy too, since he's smaller, so her way of attracting attention is havng tantrum” (3).*

*Assess. 2 (M38): “The truth is that I don't know, I am trying to understand the same thing, because I don't know, I don't know why ... he has a very strong temper, so I don't know if it would be that” (2).*

*Assess. 3 (M38): “I don't know if she inherited it from me or if ... I don't know, she's always been like that since she was little, I don't know why, but all the things that bother her, she explodes, it's not even like I can mediate little by little, no, it explodes. I don't know why it could be, always the things that she doesn't like make her angry and she gets upset and we have to leave her alone and then it goes away, but the truth is I don't know why ...” (0).*

*Assess. 1 (HF28): “Any conflict or problem with him ?, ehh, the bad words! Yes, he learned some bad words and I began to tell him a story, in a story that dad when he was little had some friends and that nobody played with them because they also said bad words and he kind of understood and has not said them again” (3).*

*Assess. 2 (HF28): “It's just that anyway I believe that children copy everything that others do, then it was a bit like that, because he already... anyway he changes, in the sense that being in the kindergarten he was one way, being here in the house it's another” (4).*

*Assess. 3 (HF28): “Because I think he wants to be here with me, but I always try to tell him that I'm going to tidy up, and he takes no time to come, and when he arrives I have all the things in order and everything and I start to play with him there in that sense. But it's more than anything because of that I think, because he wants to be here with me” (3).*

***Hypothesis 4: "Parental Reflective Function will have a modulating role in the influence of attendance to the intervention on the pre- and post-intervention maternal variables."***

In the first place, from a multilevel regression model with a REML estimator (Peugh, 2010), the influence of intervention attendance on the quality of maternal interaction and the moderating role of PRF on this relationship is estimated. It is observed that the quality of the interaction at its basal level ( $b = 0.953$ ,  $t = 2.586$ ,  $p < .05$ ) and PRF ( $b = 10.192$ ,  $t = 2.253$ ,  $p < .05$ ) are significant predictors of the quality of the interaction in the second evaluation and so too is the interaction between both variables ( $b = -0.217$ ,  $t = -2.074$ ,  $p < .05$ ), and intervention attendance alone is not ( $b = 4.395$ ,  $t = 1.454$ ,  $p = .219$ ) (see Table 44).

Table 44

*Parenting Interactions regressed by Intervention, its baseline level and PRF*

	Beta	SE	t-value	p-value
Intercept	-9.059	16.021	-0.565	0.577
Quality of Interaction	0.953	0.368	2.586	0.017
PRF	10.192	4.524	2.252	0.034
Intervention attendance	4.395	3.023	1.453	0.219
Quality of Interaction*PRF	-0.217	0.105	-2.074	0.050
Simple slope				
Low PRF (-1 SD)	0.734	0.270	2.71	0.011
High PRF (+1 SD)	0.008	0.231	0.03	0.972

Then, in order to estimate the modulating role of PRF on the relation of attendance to the intervention with the variables of interest, a model like the previous one is estimated, but in order to favor data interpretation and to avoid collinearity problems, all the predictors were centered on their grand mean (Shieh, 2011) and not on the group mean to thus avoid eliminating the variability provided by the kindergarten

(Kenny, Kashy & Cook, 2006, Campbell & Kashy, 2002). In order to obtain standardized estimates, all the variables were transformed to Z score. Following the notation of Preacher, Curran & Bauer (2006) for the effects of interaction, the intervention was taken as a focal predictor whose relationship with maternal interaction quality was moderated by PRF. Only the intercept according to the variable of level 2 (kindergarten) was allowed to vary, since it is necessary to have more units per group than random effects in the model (Kenny, Kashy & Cook, 2006).

The proposed model can be summarized in the level 1 equation:

$$\text{Quality of mother's Parenting Interaction}_{ij} = \beta_{0j} + \beta_{1j}(\text{PRF}) + \beta_{2j}(\text{Intervention}) + r_{ij}$$

And in the following level 2 equation:

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

It is possible to observe in Table 45 that, adjusting for variability contributed by belonging to the kindergarten, attendance to the intervention alone is not a significant predictor of the quality of the interaction evaluated after the intervention; PRF does not appear again as a significant predictor of maternal interaction quality in the second evaluation ( $b = 1.452$ ,  $t = 1.509$ ,  $p = .143$ ), the basal level of the basal interaction quality does appear as a significant predictor of the quality of the interaction in the second evaluation ( $b = 0.40$ ,  $t = 2.176$ ,  $p < .05$ ) and the interaction of both variables is a significant predictor of the quality of the interaction in the second evaluation ( $b = -0.217$ ,  $t = -2.075$ ,  $p < .05$ ) (see Table 45). This model explains 27.1% of the variance in the quality of the interaction in the post-intervention evaluation ( $F_{(4,26)} = 3.790$ ,  $p < .05$ ).

Table 45

*Parenting regressed by Intervention, its baseline level and PRF*

	Beta	SE	t-value	p-value
Intercept	39.369	1.271	30.966	< 2e-16***
Quality of Interaction	0.400	0.184	2.176	0.038*
PRF	1.452	0.962	1.508	0.143
Intervention attendance	4.406	3.017	1.460	0.156
Quality of Interaction*PRF	-0.217	0.104	-2.074	0.048*
Simple slope				
Low PRF (-1 SD)	0.734	0.270	2.71	0.011*
High PRF (+1 SD)	0.008	0.231	0.03	0.972

The Bauer & Curran (2006) 95% confidence interval for the region of significance was located in points 0.4016 to 33.733 of the centered PRF variable. Because of the latter, only the lower limit of the confidence interval could be interpreted (Bauer & Curran, 2006; Hayes, 2013). In this regard, the relationship between basal quality of the maternal interaction and its quality in post-intervention assessment was significant from values of the PRF variable equal or lower than 0.4016 in the centered scale, or 2.97 in the original scale.

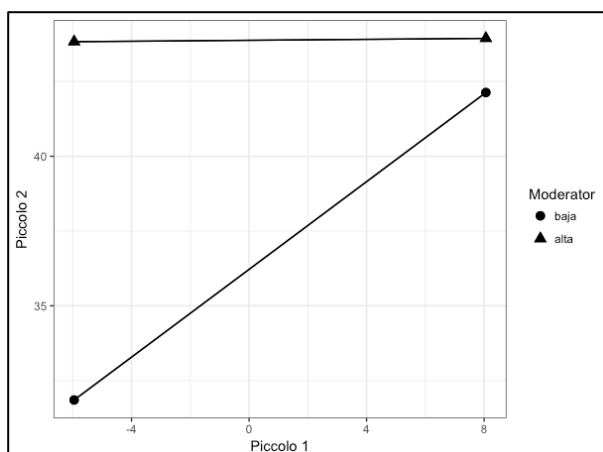


Figure 17. Moderator effect of the low PRF over the relation between first and second assessment of Parenting Interactions.

This result indicates that the mothers with questionable or low reflective functioning (category less than 3) showed greater intensity in the quality of the interaction with their children in the relationship between the basal level and after the intervention.

Then, a similar model was estimated, but now estimating the interaction between PRF and intervention attendance and this interaction is not statistically significant ( $b = 2.225$ ,  $t = 1.104$ ,  $p = .279$ ) and the moderating role of PRF is discarded in the influence of intervention attendance on maternal interaction quality after the intervention (see Table 46 annexed).

Similar models are estimated for other variables of interest (risk in SED and parental stress) and these models are not significant, reason for which it is not disregarded to include them in this section.

***Hypothesis 5: "The mothers who attend the intervention will show better levels in Mentalization, compared to dyads without intervention"***

*Effect of the intervention over mother's Mental States References*

T-tests (paired samples) were performed in order to evaluate differences between the groups in the second evaluation and it is observed that there are statistically significant differences between the mothers who went to the intervention and those who did not the second evaluation after the intervention ( $t = -2.503$ ,  $df = 21.958$ ,  $p = .0203$ ), however these differences disappear in the follow-up evaluation.

Table 47

*Mental States References and words among assessments and group of study*

	<i>Experimental Group</i>		<i>Control Group</i>		<i>Total simple Min. – Max.</i>	
	<i>M</i>	<i>DE</i>	<i>M</i>	<i>DE</i>		
			MS			
MS references Assess. 1 (N=26)	4.46	3.50	references Assess. 1 (N=89)	3.47	3.31	0 - 15
Words nr.	268.04	97.39	Words nr.	243.07	113.02	72 - 624
			MS			
MS references Assess. 2 (N=20)	6.55	7.32	references Assess. 2 (N=27)	2.30	2.367	0 - 28
Words nr.	313.60	153.65	Words nr.	203.11	86.02	97 - 800
			MS			
MS references Assess. 3 (N=12)	3.58	3.58	references Assess. 3 (N=16)	1.69	1.41	0 - 9
Words nr.	246.25	47.64	Words nr.	198.59	39.83	0 - 292

Regression models are performed in order to evaluate the predictive effect of the intervention on the number of references to mental states, but this time controlling for their basal level. It can be seen that intervention attendance is a significant predictor of the increase in the number of references to mental states in the second evaluation ( $b = 3.678$ ,  $t = 2.321$ ,  $p < .05$ ) and this model explains 13,5% of the variance in the references to mental states in the second evaluation ( $F_{(2,43)} = 4.522$ ,  $p < .05$ ) (see Table 48 annexed).

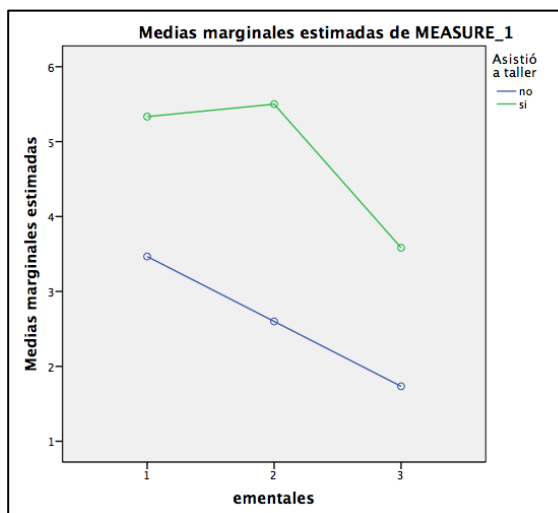


Figure 18. Marginal means of Mental States references among three assessments.

Due to the changes observed between basal and post-intervention assessment, as well as differences observed between groups, (see Table 49), regression models are performed in order to evaluate the predictive role of intervention attendance in the number of references to desires/emotions ( $b = 2.431$ ,  $t = 2.059$ ,  $p < .05$ ) and cognitions ( $b = 1.652$ ,  $t = 2.869$ ,  $p < .005$ ) in the second evaluation, considering the basal level and in both cases intervention attendance is a significant predictor even considering the basal level of each variable. The first model is not statistically significant ( $F_{(2,42)} = 2.618$ ,  $p > .05$ ) (see Table 50), but the second model that explains the number of cognitions is significant ( $F_{(2,42)} = 5.724$ ,  $p < .005$ ) explaining 17.7% of the variance (see Table 51 annexed).

Table 49

*Changes in MS References to Desires and Emotions, and Cognitions among groups*

	Experimental Group (N=26)		Control Group (N=89)		Total sample Min. – Max.
	M	DE	M	DE	
Desires and Emotions Assess. 1	2.60	2.68	1.81	2.15	0 – 12
Desires and Emotions Assess. 2	3.75	5.31	1.19	1.55	0 – 20
Cognitions Assess. 1	1.40	1.44	1.26	1.74	0 – 8
Cognitions Assess. 2	2.70	2.41	1.00	1.30	0 – 8

**Hypothesis 6: " The mothers who attend the intervention, will show better levels of quality in mother's Parenting Interaction with their children, compared to mothers without intervention."**

*Effect of intervention on the maternal Parenting Interactions*

It can be observed that the mothers of the experimental group generally improve in the quality of the interactions with their children and that the control group in general decreases (see Table 52). The intervention attendance is a significant predictor of the quality of the total maternal interaction quality ( $b = 31.835$ ,  $t_{(47)} = 2.250$ ,  $p < .05$ ) as well as the basal level of the same interaction ( $b = 0.524$ ,  $t_{(47)} = 2.712$ ,  $p < .005$ ) for the second assessment and the interaction between both (basal level and intervention attendance) ( $b = -0.679$ ,  $t_{(47)} = -2.035$ ,  $p < .05$ ). This model explains 11.09% of the variance in the quality of the interaction at the post-intervention assessment ( $F_{(3,47)} = 3.08$ ,  $p < .05$ ) (see Table 53 annexed).

Repeated measures ANOVA tests are performed to evaluate if there were statistically significant differences in the averages of both groups, but these differences do not appear as significant.

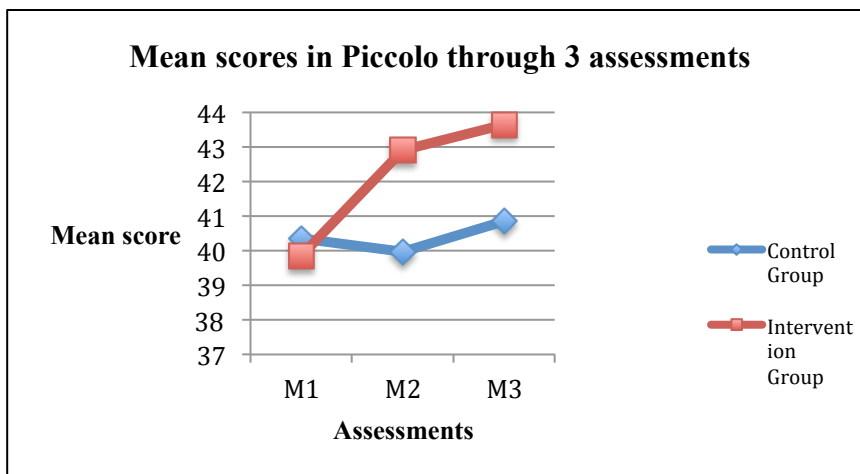


Figure 19. Mean scores in parenting interactions from mothers across assessments



Subsequently, multiple linear regression analyzes are performed to evaluate the effect of the intervention on the quality of the mother-child interaction, considering the influence of the attachment styles and the basal level of the interaction.

However, this model is not statistically significant, which means that mother's attachment do not help to explain the change in mother's Parenting Interactions.

Considering this finding, a qualitative description of the averages in the quality of the interaction in relation to the attachment styles is made, which is described below (see Table 54).

Table 54

*Means (SDs) in mother's Parenting Interactions among mother's Attachment Styles*

	Assess. 1 (N=114)		Assess. 2 (N=58)		Assess. 3 (N=18)	
	<i>M</i>	<i>DS</i>	<i>M</i>	<i>DS</i>	<i>M</i>	<i>DS</i>
Secure	42.80	6.757	40.68	8.909	46.00	2.000
Fearfull	38.14	7.402	40.09	7.516	43.50	3.109
Preoccupied	40.38	7.940	41.58	6.694	41.25	5.795
Desengaged	37.85	7.788	42.44	9.812	40.50	9.711
<i>Min. – Max.</i>	20 – 58		17 – 54		29 – 50	

*Effect of the intervention over Parental Stress*

It is possible to see statistically significant differences between both groups in the post-intervention evaluation on the difficult child subscale ( $t_{(51)} = 2.022, p < .05$ ), difference that for the third evaluation does not get to be significant, but it continues existing ( $t_{(28)} = 1.931, p > .05$ ). When performing analysis considering the basal level of total parental stress, it is observed that only the basal level of parental stress is a significant predictor of stress in the second evaluation, even considering the influence of attachment. This model explains 31.6% of the variance of post-intervention parental stress ( $F_{(4,52)} = 7.455, p < .000$ ) (see Table 55 annexed).

Now, when disaggregated by subscales of parental stress, certain tendencies can be observed in the subscales of difficult interaction with the child (see Table 56 annexed) and difficult child (see Table 57 annexed), with the basal level still appearing as the most significant predictor of stress in the second evaluation. These models are statistically significant, explaining 25.4% of the variance in the difficult interaction with the child ( $F_{(4,53)}=5.843, p <.000$ ) and 45% of the variance in parental stress associated to difficult child ( $F_{(4,52)}=12.46, p <.000$ ).

Although the differences between both groups are not statistically significant, the mothers of the experimental group remain at lower levels of stress, within the normal and expected ranges (see Table 58 annexed).

*Effect of the intervention over child's Socio-Emotional Development risk*

Changes in the risk assessments in SED are evaluated and differences can be observed between the three evaluations inside and between groups at the basal level, as well as in the second and third assessment (for descriptive statistics see Tables 59 and 60 annexed), being the control group with significantly more frequency of SED risk in their children (see Figure 20).

Table 58

*Parental Stress means in each group among assessments*

	Experimental Group (N=22)		Control Group (N=95)	
	<i>M</i>	<i>DE</i>	<i>M</i>	<i>DE</i>
Total PS Assess. 1	67.96	18.44	73.01	19.75
PS	26.78	8.13	27.46	9.08
Diffiult Interaction	17.55	6.82	19.20	6.99
Difficult Child	23.64	6.59	26.40	8.24
	Experimental Group (N=21)		Control Group (N=39)	
Total PS Assess. 2	64.19	15.00	72.03	19.33
PS	26.82	8.38	26.73	8.10
Diffiult Interaction	16.32	4.92	19.13	6.21
Difficult Child	22.29	6.82	26.46	8.94

	Experimental Group (N=13)		Control Group (N=18)	
Total PS Assess. 3	65.00	18.730	75.11	24.25
PS	25.85	8.071	27.90	10.67
Difficult Interaction	17.46	6.40	19.72	6.99
Difficult Child	21.69	7.06	27.50	9.68

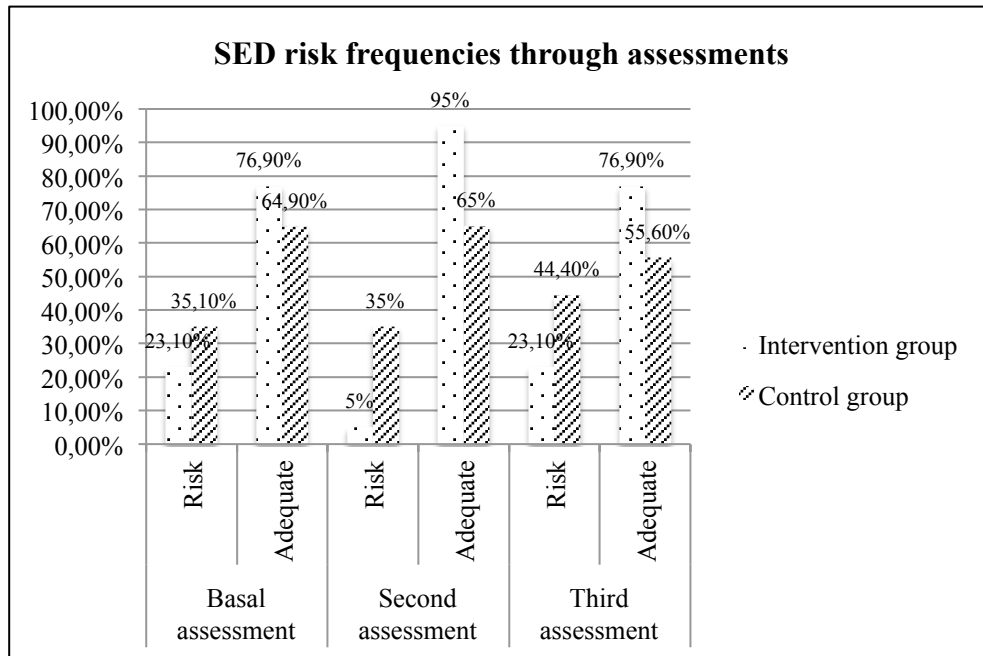


Figure 20. Frequencies of SED risk though assessment in both groups

T-tests (paired samples) are performed aiming to evaluate if there are significant differences between the group means and they were not at the basal assessment.

However, statistically significant differences appear in the second evaluation for the full scale ( $t_{(56)} = 2.554, p < .05$ ), and its subscales of Self-regulation ( $t_{(50)} = 2.052, p < .05$ ), and Communication ( $t_{(54)} = 2.290, p < .05$ ), obtaining that the mothers who attend the intervention tend to report less risk in their children's social-emotional development in the second evaluation after the intervention

Then, regression analyses are performed in order to evaluate the predictive value of intervention attendance on the risk in socio-emotional development and its subscales, and when controlling by basal level, the intervention does have a significant predictive value in total risk in socio-emotional development ( $b = -17.977; t_{(57)} = -2.411, p < .05$ ),

seeing that the mothers who attend the intervention, tend to report less risk in socio-emotional development. It can also be seen that the basal level of risk in SED is also a significant predictor of risk in the second evaluation ( $b = 0.546$ ;  $t_{(57)} = 4.104$ ,  $p < .01$ ). This model explains 26.1% of the risk variance in SED and is statistically significant ( $F_{(2,57)} = 11.42$ ,  $p < .001$ ) (see Table 61 annexed).

No statistically significant differences were observed between children of 36 and 48 months of age in the second measurement, except in autonomy, where the child's age does mark statistically significant differences between these ages ( $F = 4.178$ ,  $p < .05$ ). In self-regulation, a trend marked by intervention attendance is observed, which explains the statistically significant differences in the scores of both groups ( $F = 3.745$ ,  $p = .058$ ).

When adding attachment style to the model, it appears that both intervention attendance ( $b = -22.524$ ;  $t_{(55)} = -3.131$ ,  $p < .01$ ) as anxiety in mother's attachment ( $b = 9.90$ ;  $t_{(55)} = 2.514$ ,  $p < .05$ ) and the basal level of total risk in SED ( $b = 0.446$ ;  $t_{(55)} = 3.326$ ,  $p < .01$ ) appear as significant predictors of risk in SED in the second evaluation. This model explains 34.32% of the variance in the risk of SED in the second evaluation and is statistically significant ( $F_{(4,55)} = 8.706$ ,  $p < .001$ ) (see Table 62 annexed).

On the other hand, when disaggregating by dimensions of risk in SED, intervention attendance is only a significant predictor of the Self-regulation subscale ( $b = -7.817$ ,  $t_{(55)} = -2.177$ ,  $p < .05$ ) for the second evaluation; this model explains 30.89% and is statistically significant ( $F_{(2,55)} = 13.74$ ,  $p < .001$ ) (see Table 63 annexed). In the other subscales, it can be observed that only the basal level of risk in SED of each of the dimensions is a significant predictor of its level in the second evaluation.

***Hypothesis 7: "Avoidance and Anxiety in mother's attachment will be significant predictors of the change in PRF and the quality of parenting interactions of mothers with their children, after the intervention and in comparison to mothers without intervention."***

Anxiety and avoidance in mother's attachment did not have a statistically significant effect over PRF in the first (anxiety  $b = -0.14$ ,  $t = -0.702$ ,  $p > .05$ ; avoidance  $b = -0.01$ ,  $t = -0.057$ ,  $p > .05$ ), second (anxiety  $b = -0.06$ ,  $t = -0.18$ ,  $p > .05$ ; avoidance  $b = -0.34$ ,  $t = -1.25$ ,  $p > .05$ ), and third assessment (anxiety  $b = -0.41$ ,  $t = -1.11$ ,  $p > .05$ ; avoidance  $b = -0.35$ ,  $t = -1.23$ ,  $p > .05$ ).

Neither did have a significant effect over the quality mothers interactions in its second (anxiety  $b = -0.03$ ,  $t = -0.02$ ,  $p > .05$ ; avoidance  $b = -0.08$ ,  $t = -0.08$ ,  $p > .05$ ) and third assessment (anxiety  $b = 1.15$ ,  $t = 0.61$ ,  $p > .05$ ; avoidance  $b = -0.47$ ,  $t = -0.60$ ,  $p > .05$ ).

However, regression analyzes are conducted to evaluate the moderating effect of intervention attendance on the relationship between attachment style and post-intervention stress, controlling by the initial value of stress. The same procedure is followed for the moderation analyzes carried out for PRF, but without considering nested data per kindergarten, since there are no nested data on the variables of attachment and stress.

It can be seen (see Table 64 annexed) that attendance to the intervention does not have a predictor role of parental stress in the second assessment ( $b = -2.628$ ,  $t_{(50)} = -0.651$ ,  $p < .5$ ), but the interaction between attachment anxiety and intervention does ( $b = -7.93245$ ,  $t_{(50)} = -2.097$ ,  $p < .05$ ), as well as the basal level of parental stress ( $b = 0.522$ ,  $t_{(50)} = 5.091$ ,  $p < .000$ ) and anxiety by themselves ( $b = 6.176$ ,  $t_{(50)} = 3.231$ ,  $p < .005$ ). This model explains 44% of the variance of parental stress at the second assessment.

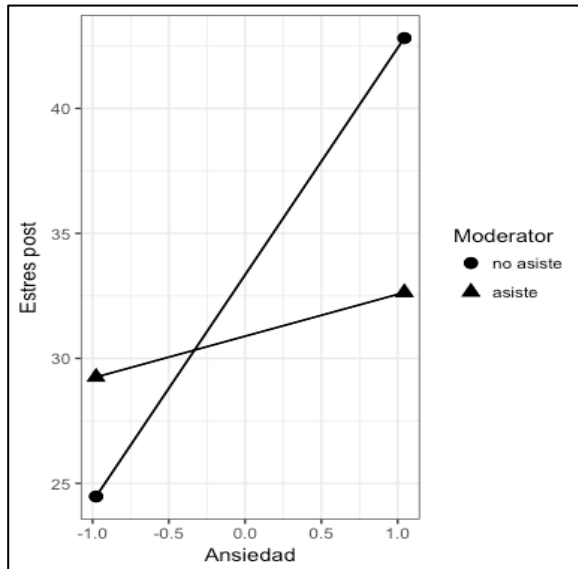


Figure 21. Moderator effect of the assistance to intervention on the relation between attachment anxiety and parental stress of the mothers over the parental stress after intervention

To disentangle the interaction effect, a “pick a point” or “simple slope” procedure was computed, considering assistance and non-assistance to intervention (Hayes, 2013). In mothers who didn’t attend to the intervention, there was a significant effect of parental stress ( $b = 0.478$ ,  $t_{(35)} = 3.964$ ,  $p < .000$ ) and anxiety ( $b = 7.944$ ,  $t_{(35)} = 3.216$ ,  $p < .005$ ) on their parental stress post-intervention. On the other hand, in the case of mothers that did attend to the intervention there was a positive and significant effect of the parental stress at basal evaluation over parental stress post-intervention ( $b = 0.754$ ,  $t_{(14)} = 3.823$ ,  $p < .001$ ), but not from anxiety as in the case of mothers of the control group ( $b = 0.0433$ ,  $t_{(14)} = 0.019$ ,  $p = .985$ ). The form of the interaction effect can be seen in the Figure 21.

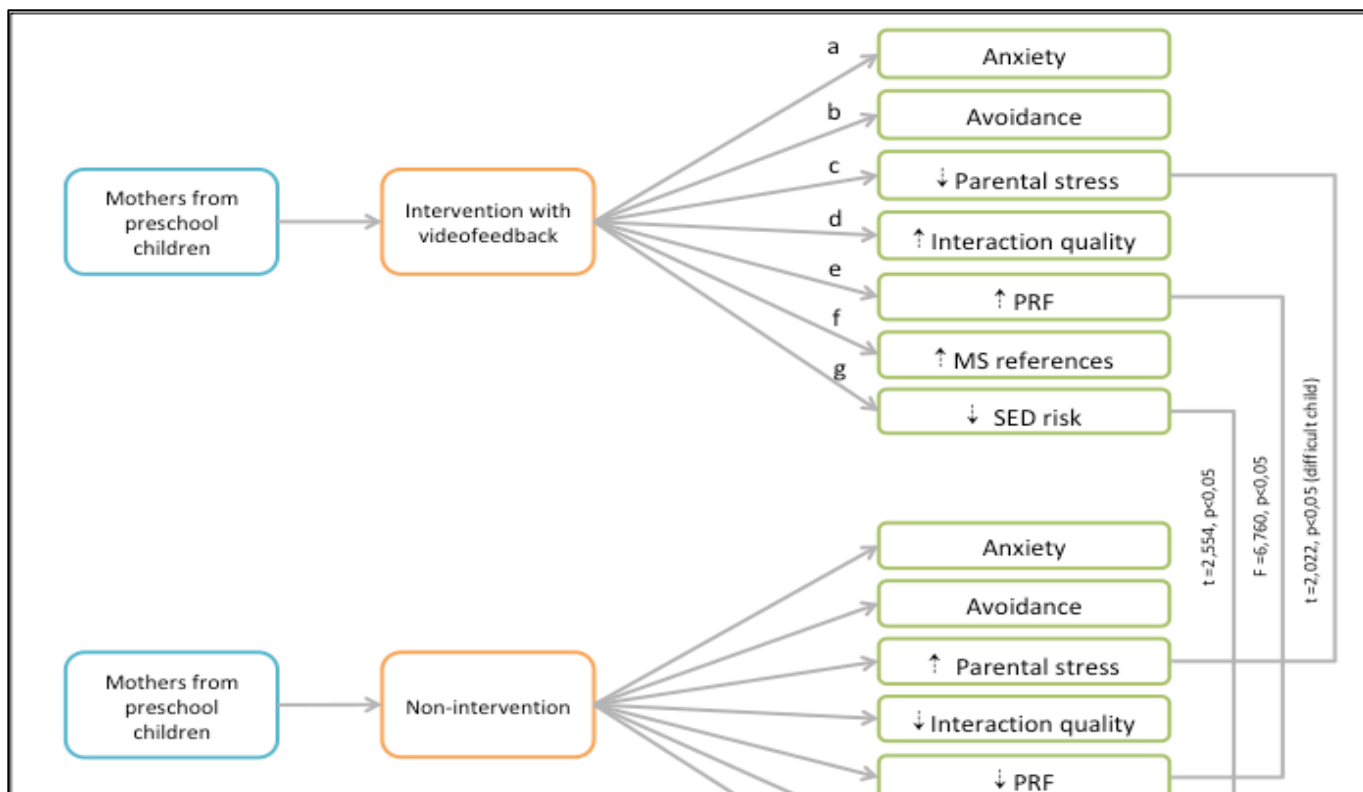
Afterwards, a Johnson-Neyman technique was also computed to obtain the 95% region of significance following the extension made by Bauer & Curran (2006). The Bauer & Curran (2006) 95% confidence interval for the region of significance was located in the points 0.3082 to 9.8101 of the centered `asist_taller` variable. Because of

the latter, only the lower limit of the confidence interval could be interpreted (Bauer & Curran, 2006; Hayes, 2013). In this regard, the relationship between attachment anxiety and parental stress was significant from values of the intervention attendance variable equal to 0 in the original scale.

## 8.4 Summary of Section 2. Effect of the intervention

### *Comprehensive model of the outcomes at post-intervention assessment*

Figure 22. Comprehensive model of the outcomes at post-intervention assessment



Note. a and b = there were not statistically significant differences between groups and through assessments.  
 c = baseline level is a significant predictor of its post-intervention level ( $\beta = 0.489, p < .005^{***}$ ).  
 d = intervention attendance ( $\beta = 31.835, p < .05^*$ ) and baseline level are significant predictors of its level post-intervention ( $\beta = 0.524, p < .05^{**}$ ).  
 f = intervention attendance predicts MS references ( $\beta = 3.678, p < .05^*$ ); desires and emotions ( $\beta = 2.431, p < .05^*$ ), and cognitions ( $\beta = 1.652, p < .05^{**}$ ).  
 g = intervention attendance predicts total risk in SED ( $\beta = -17.9770, p < .05$ ), as well as its basal level ( $\beta = 0.5459, p < .01$ ), and there are statistically significant differences between groups in the total score ( $t = 2.554, p < .05$ ) and self-regulation ( $F = 3.745, p = .0582$ ).



### 8.5 Section 3. Cluster analyses

***Hypothesis 8: "It will be possible to configure the mothers' according to PRF levels and the quality of the pre and post-intervention maternal interaction.."***

#### *Hierarchical and non-hierarchical cluster analysis*

Cluster analyses were performed for the entire sample in the baseline measurement. The variables included in the analysis were the quality of the Parenting Interaction of mothers, Parental Stress, Anxiety and Avoidance in mother's Attachment, and risk in SED. These variables are used because the smaller sample size PRF evaluations, that will exclude more cases from the analysis.

Cluster analysis does not present a single solution, but the result depends on the characteristics of the procedure used, and it will always exclude some cases from the sample. First, a hierarchical analysis was carried out in order to identify the optimal number of clusters, and secondly, the non-hierarchical method was used, following Hair, Anderson, Tatham y Black's (1999) recommendations.

The Euclidean distance squared was calculated for the hierarchical procedure, the Ward cluster method was used to define the hierarchical structure and the variables were standardized in Z scores in order to avoid inconsistencies between the cluster solutions.

The agglomeration coefficient C according to the grouping stages presents the most important increase when going from 2 clusters ( $C = 342,394$ ) to 4 ( $C = 400,644$ ), the increase being of 58,250. This would be suggesting 4 groups as the most appropriate number.

The solution of 3 clusters (see Table 65 annexed) distinguishes by levels of risk in the SED, having a group well below the cut score, the second one below the same

score and a third one that is considerably above the risk score. This solution also distinguishes by levels of avoidance in attachment, the first one and the third one above the sample mean and the second one close to the mean; and by levels of parental stress, the first and second group in normal ranges and the third one in the clinical range. In the case of anxiety in attachment, it allows to distinguish a group with anxiety considerably above the sample mean.

When going from three to four clusters, the second group is divided allowing to more finely distinguishing by risk in SED and anxiety and avoidance in the attachment. This solution also allows distinguishing a group (2) with the least anxiety and general avoidance of the sample, with levels of risk in SED close to the cut score, normal parental stress and mother's Parenting Interactions somewhat above the average. This solution also allows us to distinguish a group (3) with the highest average mother's Parenting Interactions quality of the sample, with low risk in SED, with normal parental stress in the lower range and less avoidance than the total sample.

It is thus that the solution of four clusters seems to be the most appropriate, since it allows to distinguish groups based on the quality of maternal Parenting Interactions and risk in SED. Figure x shows the dendrogram obtained when performing the hierarchical cluster analysis.

As of the analysis of non-hierarchical k-means clusters for 4 clusters, it is observed that convergence was reached in 7 iterations and it is confirmed again that 4 groups is the best cluster solution (see Figure 24). As of the analysis of variance (see Table 66 annexed), it can be observed that there are statistically significant differences between the clusters for anxiety variable in the mother's attachment ( $F_{(3,100)}=5.525, p <.000$ ), parental stress ( $F_{(3,100)}= 45.020, p <.000$ ) and SED risk ( $F_{(3,100)}=204.736, p <.000$ ).

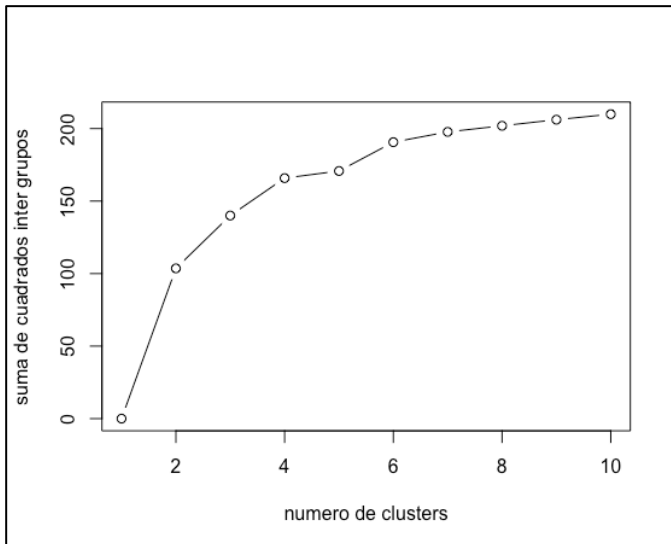


Figure 24. Appropriate number of clusters.

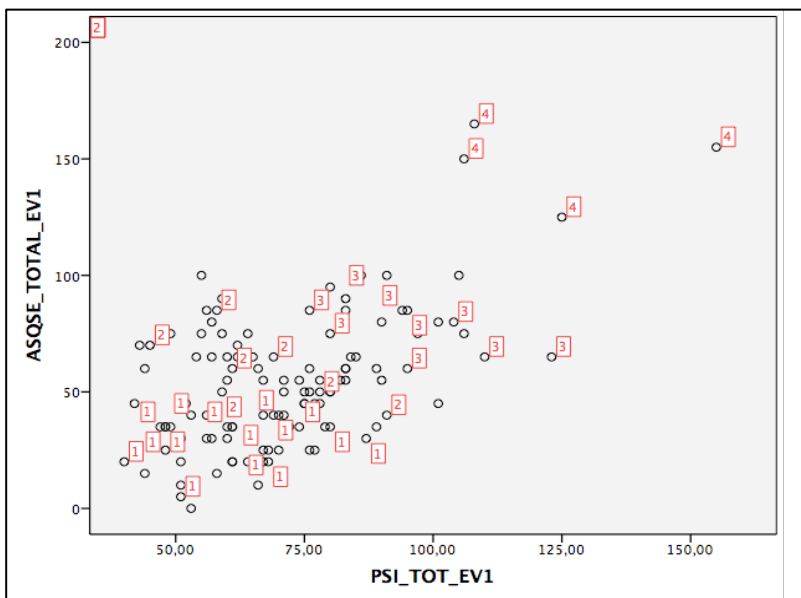


Figure 25. Location of cases according the group of pertinence

The results for each variable in each group obtained from the cluster analysis are described and detailed below, being able to observe the differences between the mothers according Parental Stress and SED risk of their children (see Figure 26), and between who attend and who do not attend the intervention in a descriptive analysis of each group. It is important to highlight that the cluster analyses can leave cases outside the

group, being in this case, a group of mothers that was not classified in these 4 groups (for descriptive statistics see Table 67).

Table 67

*Means of variables of interest in k-means cluster analysis for 4 groups*

	1 (N=42)	2 (N=40)	3 (N=18)	4 (N=4)
Parenting Interactions	40.55	41.10	39.22	38.00
Anxiety	3.26	3.21	3.59	5.25
Avoidance	2.82	2.93	3.43	3.75
SED risk	27.98	60.63	82.22	148.75
Parental Stress	61.71	69.33	92.67	123.50
PRF	2.5 (N=19)	2.3 (N=15)	4.0 (N=4)	0.0 (N=1)

### 8.5.1. Final model to operationalize profiles of the mothers

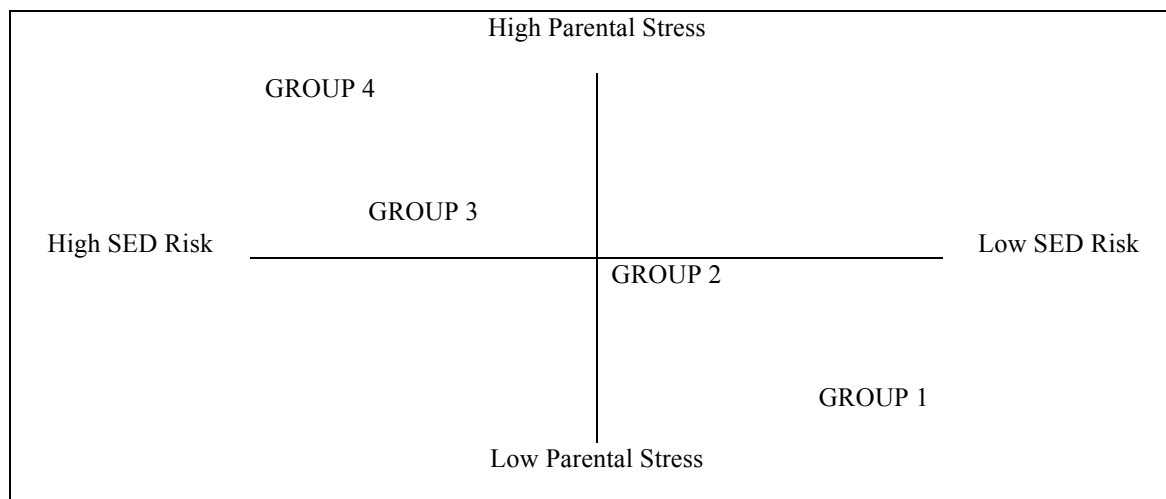


Figure 26. Final model to operationalize profiles of the mothers

*Group 1.* This group is made up of a group of "average mothers with children with low risk in DSE", reporting levels of stress below the sample average and risk in SED well below the average and the cut score of the scale. The quality of the mother's Parenting Interactions and anxiety and avoidance in attachment are also observed in the average.

This group of mothers presents a reflexive functioning as the mean of the sample, which is low, despite coinciding with the average.

When evaluating what happens with the mothers of this group in relation to the intervention (See Table 67), it can be seen that those who attend, tend to report practically the same risk levels in the SED of their children, parental stress and levels of anxiety and avoidance in attachment in the second evaluation; however, those who attend the intervention increase the quality of mother's Parenting Interactions with their children to a greater extent than those who do not attend the intervention. In this sense, those that do not attend the intervention differ from those that do, in that they tend to report greater risk in SED and that they improve to a lesser extent in the quality of the Parenting Interactions with their children. Added to these differences, it is possible to observe that those mothers who attend the intervention have average category 3 PRF and those who do not, average 2.

Table 68

*Group 1: Means in variables of interest, pre- and post-intervention*

	Control Group <i>M</i> (N=31)	Experimental Group <i>M</i> (N=11)
SED risk Assess. 1	28	29
SED risk Assess. 2	47.31	30.00
PS Assess. 1	62.03	60.82
PS Assess. 2	58.00	60.89
Parenting Interaction Assess. 1	41	39
Parenting Interaction Assess. 2	44	44
Anxiety Assess. 1	3.18	3.47
Anxiety Assess. 2	3.05	3.46
Avoidance Assess. 1	2.67	3.26
Avoidance Assess. 2	2.56	2.73
PRF pre-intervention	2	3
PRF post-intervention	2	3

*Group 2.* The "average mother". The second group allowed to distinguish mothers with average levels in PRF variables, quality of mother's Parenting Interactions, anxiety and avoidance, but they report higher risk in SED than Group 1, being below the instrument

cut score but close to the sample mean. These mothers have a slightly lower reflective performance than Group 1, being below the sample mean and being very low according to that which is established by the scale.

When observing what happens with the mothers of this group who attend the intervention and those of the control group, it can be observed that those who attend the intervention report lower risk in the SED of their children, less parental stress and maintain the levels of anxiety and avoidance in attachment. It is also observed that these mothers marginally decrease in the quality of the mother's Parenting Interactions with their children, but they increase in the level of reflexive functioning. In the case of those who do not attend the intervention, they report higher risk in the EDS of their children, greater parental stress, they also maintain levels of anxiety and avoidance in attachment, but also decrease the quality of PRF after the intervention.

Table 69

*Group 2: Means in variables of interest, pre- and post-intervention*

	Control Group <i>M</i> (N=33)	Experimental Group <i>M</i> (N=7)
SED risk Assess. 1_	60	64
SED risk Assess. 2	66.88	55.00
PS Aess. 1	69.58	68.14
PS Aess. 2	74.63	62.29
Parenting Interaction Assess. 1	41	42
Parenting Interaction Assess. 2	38	39
Anxiety Assess. 1	3.14	3.57
Anxiety Assess. 2	3.71	3.55
Avoidance Assess. 1	3.07	2.31
Avoidance Assess. 2	3.31	2.17
PRF pre-intervention	2	3
PRF post-intervention	1	4

*Group 3.* The "mother with adequate reflective functioning and difficulties in exercising parentality". This group of mothers considers a smaller size than the two previous groups and at the basal level, a quality of mother's Parenting Interactions with their children is observed below the sample average, with greater anxiety and considerable

higher level of avoidance in attachment than the sample mean. Likewise, it is a group of mothers who reports levels of stress close to the clinical level and risk in the EDS of their children, evidently above the cut score and sample mean. It should be noted that mothers in this group have PRF well above the sample average.

When evaluating what happens with the mothers of this group who attend and who do not attend the intervention, it can be seen that those who attend report considerably less risk in the SED of their children, being below the cut score of the scale, lower parental stress and a decrease in levels of anxiety and avoidance in attachment. It should be noted that these mothers improve considerably in the quality of their mother's Parenting Interactions with their children and are those with the most reflective functioning of the sample. It happens differently with those mothers of this group who do not attend the intervention, who reduce their levels of risk in SED and parental stress, but not in a considerable way, and maintain levels of anxiety and avoidance in attachment and Parenting Interactions. These mothers in addition reduce the quality of their reflective functioning.

Table 70

*Group 3: Means in variables of interest, pre- and post-intervention*

	Control Group <i>M</i> (N=14)	Experimental Group <i>M</i> (N=4)
SED risk Assess. 1	81	85
SED risk Assess. 2	76.43	55.00
PS Aセス. 1	94.21	87.25
PS Aセス. 2	81.43	64.00
Parenting Interaction Assess. 1	38	43
Parenting Interaction Assess. 2	38	48
Anxiety Assess. 1	3.65	3.38
Anxiety Assess. 2	3.67	1.83
Avoidance Assess. 1	3.31	3.83
Avoidance Assess. 2	3.76	3.25
PRF pre-intervention	3	5
PRF post-intervention	2	5

*Group 4.* The "mother with a risk situation in the exercise of parenting". This is the smallest group, there are only 4 mothers and none of them attends the intervention. It is a group of mothers that presents clinically significant levels for all its variables, except for quality of the mother's Parenting Interactions in the second evaluation, which also shows an increase in reflective functioning.

Table 71

*Group 4: Means in variables of interest, pre- and post-intervention*

	Control Group <i>M</i> (N=4)	Experimental Group <i>M</i> (N=0)
SED risk Assess. 1_	149	.
SED risk Assess. 2	120.00	.
PS Aセス. 1	123.50	.
PS Aセス. 2	124.00	.
Parenting Interaction Assess. 1	38	.
Parenting Interaction Assess. 2	43	.
Anxiety Assess. 1	5.25	.
Anxiety Assess. 2	4.33	.
Avoidance Assess. 1	3.75	.
Avoidance Assess. 2	4.17	.
PRF pre-intervention	0	.
PRF post-intervention	3	.



## 9. Discussion

In this section, the main findings of the study are discussed according to the established hypotheses. In the first place, the most relevant results of the basal analyzes ("Characteristics of mothers") are examined. Secondly, the results of the intervention are discussed in relation to the variables of interest and focus of the intervention ("Effectiveness of the intervention"). Third and finally, the profiles of mothers that could be distinguished pre- and post-intervention are analyzed, making contrasts among them ("Profiles of mothers").

It is important to remember that although this sample was recruited as a non-clinical sample, based on certain socio-demographic characteristics, it can be said that it constitutes a sample of high vulnerability and psychosocial risk, which allows to interpret the findings of this study.

Finally, the results of each variable will be analyzed based on the standards set by each instrument and compared with other national and international studies that use the same instruments, since Chilean standards are not yet available for them

### 9.1 Characteristics of the mothers

*Hypothesis 1. Parental Reflective Function will correlate with the other variables of interest such as the mother's Parenting Interactions, references to Mental States, Parental Stress, risk in Socio-Emotional Development.*

The Parental Reflective Functioning mean in this sample was significantly lower ( $M=2.57$ ,  $SD=1.620$ ) than in other studies with mothers of non-clinical and clinical samples (Ordway et al., 2014, Ensink et al., 2014, 2016; Bammens et al., 2015; Slade et al., 2005). Only 11.4% of mothers was qualified with the ability to reflect about their

children's minds, 43.2% presented language about mental states but not being able to reflect about them, and the last 45.5% did not use mental states to refer to their children and their relationship with them, or they rejected the use of reflective functioning.

Thus, the PRF levels that were found in this study correspond more with those found by studies with clinical samples, samples from mothers with high psychosocial risk and with histories of trauma and deprivation, in which the average PRF is in a range between 2.4 to 3.3. These studies refer to samples of pregnant women and mothers with substance dependence (Pajulo et al., 2012; Suchman et al., 2008); pregnant women prisoners who have their children in prison (Baradon et al., 2008; Sadler et al., 2013); mothers exposed to violent traumas in childhood (Schechter et al., 2008); and mothers of different socio-demographic levels in which the lowest PRF levels presented avoidant and disorganized attachment patterns (Stacks et al., 2014).

Although the sample of this study generally presents a medium and university educational level, this sample presents characteristics that allow it to be classified as vulnerable and of psychosocial risk. Some of these characteristics are the low socio-economic level, the sectors where they live and where the kindergartens which their children attend are located, which are peripheral and vulnerable sectors of the city of Santiago (Observatorio Niñez y Adolescencia, 2016), and in some cases, the age of the mother that allows to know that they were adolescent or young when they became mothers of the children of the sample (between 15 - 19). This group of mothers are at least 26 mothers, because there is another group of them that had children older than those of the sample at the moment of the study.

There is evidence that argues that a caregiver may be reflective but highly symptomatic in specific situations specially lowering her reflective functioning when the child is experienced by the mother as a life stressor (for example, adolescent/ young

pregnancy), interfering her capacity to reflect upon the relationship with her child (Schechter et al., 2005), which also allows to comprehend PRF as a very dynamic capacity as well as specific to a particular context and relationship (Luyten et al., 2017).

On the other hand, Sadler and colls. (2013) reported that it is possible that mothers of low educational levels and who live in adverse environments, could even increase the use of mental language in an instrumental rather than a reflective way, which can also be related to the approach of Baradon and colls. (2008), by specifying that the references that mothers made about their children and of themselves as mothers tended to be idealized and stereotyped. Moreover, Suchman et al. (2010) consider that scores of less than 3 can be indicators of risk of child maltreatment.

In this sample, the descriptions that mothers made of their children also tended to be idealized and stereotyped (*"Well, apart from all the qualifying, positive adjectives, is that she's one of the reasons of my life ... She's the sun for me"; "I feel like going on with him, to continue projecting myself, he's my anchor to the earth"; "For me he's cute, he's cheerful, he's everything, see"; "Happy. The best that God has given to me. She makes my life happy. She's everything is for me. That's it, that she's my world"*) or else devaluing and that distort (*"She is a restless girl, she likes to cry, of course, more than demand, it's just, it's just crying. She likes to be treated well "; "It is that the boy fell down and he exaggerated the situation very much, so that we were all surrounding him"*) or focused on the child's behavior and discipline rather than on the relationship between both (*"She's not hyperkinetic, eh hh when she likes to play, a tantrum, normal within everything"*).

This allows to relate the defensive strategies of mothers with their own attachment representations (mentalization), which have at the base the notion that a child is an "inner object" of themselves, that is, of the interplay of their real experience

with their representations, and that an evaluation of their child will directly or indirectly evaluate them as mothers, sometimes called “primary preoccupation of the mother” (Winnicott, 1960).

In terms of the theory proposed by Stern (1995, pp. 27), it is possible to distinguish between two parallel worlds; the real and objectionable world and the subjective and imaginative world of maternal representations, there is the real baby in the arms of his/her mother and the baby imagined by that mother's mind, there is the real mother who holds the baby and the woman who in that moment she imagines as a mother, and in the world of representations live her fantasies, hopes, fears, dreams, memories of her own childhood, her own parental model and the prophecies about her child's future.

On the one hand, the idealization that mothers perform is a defensive strategy that could be related to the need to feel good with their children and with themselves as mothers, despite the possible circumstances and adverse experiences they have experienced, and, for their part, the devaluation as a defense towards the instance of evaluation of their competences as a mother in the general social context and of the kindergarten in particular.

Knowing that this sample is of psychosocial risk, there is literature that has argued that being a mother is a fact that gives identity and that ultimately completes the identity of the woman (Marcús, 2006). In this same sense, the defenses shown by the mothers of this sample are consistent with the literature that refers to the social, historical and cultural construction of motherhood. Thus, in addition to the biological processes and natural dispositions of women towards motherhood, she has been defined as a single and sacrificed mother in charge of the upbringing and it has also been said that there is an absent father (Naudon, 2016). These definitions also assume that a

woman is always ready and able to be a mother; definitions that have been partially questioned with the advance of knowledge about the impact of becoming a parent (eg George & Solomon, 2008), about the importance of the first years of life, the configuration of attachment systems (eg, Bowlby, 1969; Verhage et al., 2016) and their influence on adult mental health (e.g. Center on the Developing Child at Harvard University, 2016; Fonagy et al., 1991; Slade, 2005).

In relation to the findings of this study of the associations of PRF with other variables of the mother and the child, it was observed that PRF was not associated with the quality of the maternal Parenting Interactions at the basal level. Although no statistically significant differences were found, it could be observed that the mothers with the lowest quality observed in Parenting Interactions with their children were those in whom there were presence of mental states in their speeches, but without reflection (3 or 4); followed by those with failures in PRF (less than 3) with a somewhat higher quality. Finally, the mothers with greater reflective functioning (greater than 5) were those with better quality in the mother's Parenting Interactions with their children.

This last case is consistent with a considerable body of research that relates maternal representations with more frequency of sensitive behaviors in mothers (e.g. Meins et al., 2012). However, it is worth reflecting that those mothers with flaws in their reflective functioning have scored somewhat better in mother's Parenting Interactions, than those who had presented mental states in their speech. In this regard, it is possible to think that something similar to what was mentioned before occurs in relation to the defensive strategies of more vulnerable groups of mothers who tend to even use more mental language in their speeches, but that these references are little associated with their maternal behaviors.

In this regard, there are studies that have found similar results (eg Meins et al., 2012), which state that for a mother to respond appropriately to her child's signals, not necessarily could have correctly interpreted the mental state of the child, but neither could she have distorted or misinterpreted the child's intentions, which means that a pertinent response from the mother should not always be accompanied by a coherent speech and reflective about the mental life of the child. Another group of studies has found that those mothers who tend to misinterpret or distort their children's behaviors are those who may not be able to read their child's needs and thus will not respond sensitively to them either. (Fonagy et al., 2002; Suchman et al., 2010).

In relation to the use of mental language, only a positive and significant association of PRF was found with the references to mental states, specifically with language associated with desires and emotions. On the one hand, this is consistent with the greater frequency of references to desires and emotions than to the cognitions that were observed in this sample and that can set a trend. On the other hand, the fact that a positive association has been found between references to desires and emotions in an story-telling situation and quality of the mother's Parenting Interactions with her child in a free play situation, can refer to elements related to the value that socialization of emotions and mother's Parenting Interactions have for the caregiver-child for the achievement of an adequate emotional regulation (Cassidy, 1994; Fox, Calkins & Bell, 1994).

Also, on the basis of the evidence that speaks about the adjustment that mothers make in their language as their child grows, it is possible to argue that the mothers of this sample would tend to infantilize their preschool children using a language that is more proper of minor children, and that in the case of this sample, it could be justified as a strategy to maintain and regulate the bond with them through the socialization of

emotions, given the transformations and challenges of the preschool period. Finally, the association between these variables is possibly also an indicator of the mother's socialization process about certain basic social norms, which are related to the emergence of ToM in the preschool period (Tirapu-Ustárrroz et al., 2007).

According to some part of scientific literature, it was expected to find significant associations between PRF, parental stress, and children's social-emotional development. Results showed a zero-order correlation between PRF and parental stress and risk in social-emotional development.

The independence of the PRF regarding parental stress has also been found by a few other studies, however, the findings of these studies have shown that good levels of reflective functioning are not related to parental stress, but associations among prementalising levels and higher levels of parental stress do appear (Luyten et al., 2017). It is also possible that the evaluation of parental stress was carried out by means of a questionnaire that has shown high reliability and sensitivity, but compared to the FMSS-RF interview, the first one evaluates general parental stress retrospectively and, instead, the FMSS-RF evaluates reflexive functioning by investigating a particular challenging situation that can bring with it memories that influence the emergence of a lower RF, compared to PSI that does not refer to specific facts in the mother's parenting with the child (Luyten et al., 2012).

What could be observed in the sample of this study was that the distribution of risk in socio-emotional development is not the same for all levels of PRF and a moderate association was estimated between the level of the PRF and the SED, observing that the higher the PRF, the lower the risk in the SED is, even considering the low general level of PRF of this sample. This is a finding that, although it seems consistent with theoretical literature, is novel and at the same time preliminary, since

there is little empirical literature that has been able to account for this relationship, being mainly concentrated in the relationship of PRF with emotional regulation and attachment styles of children (Camoirano, 2017). Some of these studies are those of Smaling and colls. (2016) who found that low levels of PRF were associated with more externalizing and aggression problems in children; and Ensink and colls. (2016) when finding inverse associations between PRF and externalizing problems.

Although differences were observed in the distribution and means of PRF levels according to variables of the child and the mother, there was no clear moderator or mediator role of PRF among other variables of the mothers at basal level. This is consistent with other studies with similar hypotheses and results, but which have not ended up being statistically significant either (e.g. Arnott & Meins, 2007; Grienberger et al., 2005; Slead et al., 2013).

On the other hand, the studies that have described direct and indirect associations between PRF with other variables of the mother and the child (eg Ensink et al., 2016, Ensink et al., 2014, van IJzendorrn, 1995, Slade et al., 2005; Smaling et al., 2017; Suchman 2008), for example, that have reported that RF was associated with maternal attachment and that the relationship between representations of attachment of the mother and security of the child's attachment was mediated by RF, but not so clearly with the insecurity of the child's attachment, but with the disorganization; and that the security of the child's attachment would be mediated by maternal sensitivity and insecurity in attachment by maternal negativity.

The results of this study, iqually to other cited studies, indicate the protective role of PRF over children's SED, being that mothers with low and adequate PRF (>3) have children with lower SED risk. Conversley, mothers with poor PRF showed higher levels of SED risk in their children. These outcomes are consistent with other Chilean



study, in a sample of younger children with their parents (León, 2018, doctoral dissertation). In a similar way, this outcome is consistent with the hypothesis that the mothers who conceive their children as a subject with a mind are more able to tune in with their mental states, which is also a capacity that promotes adequate parenting and that as a consequence would foster the security in attachment, emotional regulation and, consequently, an adequate socio-emotional development of the child (e.g. Fonagy et al., 1998; Fonagy et al., 2004; Jurist, 2010; Sharp & Fonagy, 2008; Slade, 2005).

To summarize, the clinical implications for the investigation of these findings should be highlighted, making evident the importance of observing the specific dimensions of PRF when examining its influences and distinguishing the associations of this competence with the development of children and the relationship their caregivers establish with them

*Hypothesis 2. Anxiety and Avoidance in mothers' attachment will predict the mother's Reflective Function, Parenting Interactions, the levels of Parental Stress and the risk in the Social-Emotional Development of their children.*

The above results have implications for clinical practice, in the same sense as the literature that has found that at higher levels of PRF, greater security in the attachment of the child, and lower levels would relate to trauma experiences not resolved and insecure attachment patterns, and even indicators of abuse risk in mothers (Borelli et al., 2016; Ensink et al., 2016; Suchman et al., 2010). Indeed, the attachment styles observed in this sample are not consistent with other studies carried out in mother populations and non-clinical samples (Bakermans-Kranenburg et al., 2009), especially in the fact that in this sample the proportion of secure attachment is considerably lower than other

studies and higher in insecure styles, even in studies with Chilean samples of normal and clinical population (Garrido et al., 2009, Garrido et al., 2015).

On the one hand, it is possible to argue that these differences are observed in attachment distributions given the nature of the instruments used to evaluate it and also given the cultural differences associated with attachment styles among the different studies. In this same sense, it can be argued that the instrument to assess attachment is mainly focused on romantic relationships and not on parenting, which leads to think that the low frequency of secure attachment can be related, on the one hand, to the frequency of mothers who live with (51.2%) and without a partner (48.8%) and, on the other hand, with the concrete support they receive in the care of their children: 66% of the mothers are the main person in charge of their child, 26.2% do not have another person who can take care of their child and 31.2% count on some grandmother. The father appears as the third person in charge of child care with 15.2%. Other socio-demographic factors that affect the social support perceived by mothers can be added to this, for example that 57.6% of mothers work, 12.8% work and study and more than 54% of the sample work more than half a day.

The greater frequency of fearful and preoccupied attachment should be noted, which in terms of the model proposed by Bartholomew & Horowitz (1991) refers to subjects who, in addition to the high avoidance of privacy and separation anxiety, are characterized by a negative view of themselves and others, which would hinder the act of asking for help in the face of a problem and the feelings of self-efficacy to solve it. In this sample, the increased prevalence of anxious attachment in the mothers of the experimental group could coincide with the acceptance of the mothers to participate in the study, submitting to an instance of evaluation and acceptance of support in the exercise of parenting.

In this study, the mother's attachment style appeared as a significant predictor of the quality of mother's Parenting Interactions with her child and it is thus interesting to conceive the attachment style as a pattern of behaviors that mothers have been configuring since childhood as an adaptive strategy to their environment, and replicating it to a large extent in the relationship with their child. In this sense, it was observed that only avoidance in attachment predicted the quality of the mother's Parenting Interactions, even controlling by the educational level, however this model explains only 7.6% of the variance. On the other hand, it was also observed that the mother's Parenting correlated in a statistically significant way with the total parental stress and very marginally with the difficult child subscale and references to desires and emotions. Considering that avoidance appeared less frequently than anxiety in attachment, on the one hand, it allows to think about the implications of avoidance in the mother-child relationship, versus the absence of influence of anxiety. Thus, it could be argued that the avoidance of the mother to respond to the child's stress and the lack of availability to interact, will determine to a large extent the quality of that relationship (Bowlby, 1969).

These results can also be understood considering the psychosocial vulnerability of the sample, as well as in the light of other studies that have referred to the mechanisms by which a care system is configured and how the quality of these systems influences the quality of the attachment pattern. These same studies have described the strong influence of the primary caregiver's childhood on how she constructs the care system of that mother with her children, observing that she will do so from the care experience that each mother were to have had with her own mother (Bretherton & Mundholland, 2007; George & Solomon, 2008).

Added to the influences and characteristics of the sample that have been described, it is also worth noting the individual characteristics of each child, which may facilitate or hinder the exercise of parenting in some aspects. It has been described that verbal skills and achievements in children's language development influence levels of attunement in the mother's Parenting Interactions of mothers with their children. It has been seen that children with greater linguistic abilities tend to contribute positively to the abilities of parents to interpret and understand mental states and, on the contrary, it has been described that the linguistic development of children is lower in families of less economic resources and if low levels of PRF are added, they see that their ability to tune in and co-regulate the child is diminished to give them the support they need, especially with emotions such as fear and stress (Feldman, 2007; Forehand et al., 1986; Grienberger et al., 2005; Lundy, 2013; Slade et al., 2005).

In this sample, parental stress levels were found at levels expected for mothers of young children (Rutherford et al., 2013; Sandin, 2003; Wong, 2012), as well as levels similar to other Chilean studies with single-parent families (Olhaberry, 2012) and two-parent ones (Pérez, et al., 2017).

It was observed that both anxiety and avoidance in attachment were significant predictors of mothers' general stress level, even controlling by their educational level and explaining 23.5% of the variance of stress. This result is also consistent with the general literature that speaks of the association of the attachment pattern with the regulation of stress and also with the greater presence of the fearful and preoccupied styles in this sample. This finding confirms the fact that the greater the insecurity in the attachment, the lower the threshold for the activation of the attachment system in stress situations and the slower the recovery of the capacity to mentalize (Bateman & Fonagy, 2012).

The implications for clinical work and for the development of interventions focused on parenting, would indicate that while the level of basal stress and attachment styles can complicate the design of interventions as well as specify target populations. Thus, interventions should promote the ability to "amplify and construct", which refers to the capacity to mentalize even in stressful situations, that also fosters attachment security, self-agency and affective regulation (Fredrickson, 2001; Mikulnicer & Shave, 2007).

Another finding was that 32.5% of the children in this sample showed risk in SED. The Longitudinal Early Childhood Survey (*ELPI*; Centro de Microdatos, 2010) in a large sample of  $N = 10,958$  children under 5 years of age found that 10.9% of the sample was in the risk area in socio-emotional development and that another 10.8% was in the range of clinically significant difficulties, percentages that increased significantly for populations of psychosocial risk. Other studies conducted with the same instrument have described difficulties in a range between 11% and 37%, which means that children in this sample are in the upper limit even for Chilean samples (ASQ-SE Technical Report; Behrman, Bravo, & Urzúa, 2010; Briggs-Gowan et al., 2013; Briggs, et al., 2012; Jee, Conn, Szilagyi, Blumkin, Bladwin, & Szilagyi, 2010; Olhaberry, León, Sieverson, et al., under review).

On the other hand, the instrument used is a screening tool that allows to search for cases in need of intervention, in fact the studies have shown that mothers with high preoccupations about their children seem to be sensitive and optimal in order to develop short-term interventions (Briggs, et al., 2012).

Regarding the role of the mother's attachment to risk in the SED of their children, it was observed that only anxiety in attachment was a significant predictor of this variable, explaining 14.4% of its variance, also controlling by educational level. It

was also observed that the educational level of the mother was a significant predictor of the risk of affection in the children's SED, although it explained only 8.3% of its variance.

In this regard, there are good grounds for considering two interconnected explanations: first, preoccupation in the mothers' attachment is consistent with the high risk report in SED that the mothers themselves evaluate. Second, the instrument is a questionnaire that can be self-applied or answered in an interview, but that in any case the mother is the informant about the difficulties they perceive in their child.

The predictor role of the parental stress over social-emotional development (explaining 30% of its variance) was also observed, but the mechanisms for which this occurs have been less described. In this study it was found that anxiety in the mother's attachment had an indirect effect on SED that was mediated by the high and low levels of parental stress, explaining 40% of the variance. Thus, the anxiety or preoccupation in the mothers' attachment appeared as a mechanism for which the mothers' high levels of parental stress negatively influenced risk in the social-emotional development of the children, and on the contrary it happened with the low levels of stress.

This is also coherent with the scientific literature that indicates that children's social-emotional development does not occur isolated from the relational context, and that a stressed parent tends to impact on children's development, as well as preoccupation in mother's attachment (Greenspan, DeGangu, & Wieder, 2001; Nelson, Kendall & Shields, 2014; Yoseff, 2005; Shonkoff, Phillips, & Council, 2000). Research on brain development and the role of context in this development has described that the context in which a child develops is able to modify his/her brain's structure, to shape it and thus lead the maturation process, impacting in various aspects of development (National Scientific Council on the Developing Child, 2004).

More specifically, it was also possible to observe that parental stress was a significant predictor of total risk in socio-emotional development and in particular of self-regulation (explaining 18.8% of its variance) and compliance (explaining 13.54% of its variance), aspects related to the establishment of limits, flexibility, which tend to be behaviors related to discipline. In addition to this, it is possible to highlight the period of transformations that preschool children and their caregivers go through; already at 48 months of age, children "need" their primary caregivers less and rely more on themselves to solve difficulties and regulate themselves; an advance that is preceded and supported mainly by the development of language that incorporate it as an emotional regulation strategy (Roben , Cole & Armstrong, 2013). In this scenario, preschool children's mothers begin to visualize their preschool child as "another child" with a rapid advance in their development and from which they can now expect other types of behaviors, increasing their expectations.

Notwithstanding the above, the emotional regulation of a child depends (and is achieved) from the efforts of his/her main caregivers, rather than the child him/herself (Eisenberg & Spinrad, 2004, p.335), which allows to think about the vulnerability of the mothers of this sample as a great disadvantage that prevents them from understanding and adjusting to the evolutive needs of their children, being able to infantilize them or "adultize them".

## **9.2 Effect of the Intervention**

In general terms, the intervention provided a buffer to mothers of preschool age crisis and transformations, and it is so that the control group tend to decrease the quality of maternal and interactional variables and the experimental group tend to improve maternal and interactional variables, but this was not significant for all variables.

The differences among study groups allow to think about the mechanisms related to the intervention's effectiveness which, at the same time, may be related to its main characteristics: the group-based format and the mental-states-focused strategies like Videofeedback.

In the first case, there is wide evidence about the influence and mechanisms in which neighborhood and perceived social support impact on parenting performance, which in this case might be awarded to the group of caregivers (e.g. Elder, Nguyen, & Caspi, 1985; Kirk, 2006; Kohen, Leventhal, Dahinten, & McIntosh, 2008; Pinderhughes, Nix, Foster, & Jones, 2007). Some studies have shown that mothers' perceived social support tend to buffer negative effects of their stress in their parenting (Collins, Schetter, Lobel, & Scrimshaw, 1993; Klebanov, Brooks-Gunn, & Duncan, 1994) and that social relations may buffer the negative effect of neighborhood deprivation, and this happens through mechanisms like social influence, social control, role-based purpose and meaning, self-esteem, sense of control, belonging and companionship, and perceived support availability (Klijs et al., 2017; Thoits, 2011).

Particularly, in relation to the intervention of this study, it is assumed that the group format of the intervention and the perceived support in it, may have provided mothers with a concrete opportunity to express themselves and understand their own experiences in light of the experiences of other mothers (Siegel, 2010; Toranzo & Taborda, 2002; Yalom & Leszcz, 2005). On the other hand, in relation to the use of Videofeedback, one can consider the influence of the person of the facilitator in the group process and the use of Videofeedback, who promotes a reflective space and recognition of the competences of the mothers who attended the interventions, providing a useful tool for them and encouraging them to discover themselves from their own resources (Murphy et al., 2013; Strathie et al., 2011).



*Hypothesis 3. The mothers who attend the intervention with Videofeedback, will show better levels of Reflective Parental Function in their narratives, compared to an intervention group.*

Differences between groups were found at baseline PRF assessment. This may be related to the fact that the first PRF assessment was conducted right after the second session of intervention, which complicates the analysis of PRF's change related to Videofeedback in further assessments. Although in this methodological issue that we will analyze these are good news from the intervention, because of the potential effect of the first two group sessions in these differences that might be related to earlier discussion about the buffering effect of the social support.

Considering the low basal values of PRF and their group differences, gaps in the second and third assessment are not significant inside groups, but between groups. This fact also leads to think about the effect of the group and its implicit social support and, on the contrary, the social isolation of the control group. Looking within groups, the mean scores of the experimental group at first assessment are similar to those that have been found by other similar studies, and control group scores are significantly lower even considering standard deviations (e.g. Bammens et al., 2015; Ensink et al., 2014; Ordway et al., 2014).

Pre-intervention changes, although marginal, are similar to several other studies of interventions based on mentalization, with or without Videofeedback (e.g. Bammens et al., 2015; Ordway et al., 2014; Pajulo et al., 2012; Suchman et al., 2008).

Findings about PRF's change in both groups may be analyzed from at least four perspectives. In the first place, the differences based on PRF levels could be attributed to the problems associated with randomization by cluster and in effect, nested RPF data are observed per kindergarten, but this does not occur for other variables, reason for

which it could be underestimated. However, when looking at the descriptive data of each variable within each kindergarten, it can be observed that the mothers who improve the most belong to the same kindergarten, and in effect they enter the intervention with similar sample mean levels in all the variables except PRF, starting with PRF greater than that of the general sample. In this sense, the effects of the intervention could be attributed to the first two sessions of the intervention and social support, as well as to the individual levels of pre-intervention PRF of these mothers and to other particular characteristics of their environment.

Second, the fact that the study groups showed differences in their PRF levels in the first evaluation and being the case of a small sample, it narrowed the ability to analyze the particular effect of Videofeedback, which was one of the main intellectual purposes of this thesis. It could be thought that Videofeedback remained literally in parentheses, however it was possible to develop analyzes that controlled these variables. It was observed that the intervention group in general worsened for the post-Videofeedback evaluation and improved again for the third follow-up evaluation, decreasing the presence of flaws and absence of PRF and increasing the presence of clear FRP. This is consistent with the "sleeper effects" that have been found in evaluations of results that are performed immediately after the intervention but with longer-term effects evaluated in the follow-up (Seitz, 1981) and that the follow-up becomes the beginning of a "cascade" of positive changes in reflexive functioning (Cassidy et al., 2017).

Third, and in relation to the above, the absence of significant differences within the intervention group could be indicating again that the need for intervention of this sample was not only preventive but clinical, being able to observe that entering a preventive intervention with such low PRF levels, these would have been very difficult

to modify.

Fourth and last, it could be observed that the control group increased the frequency of failures in its PRF and the opposite happened with the experimental group, which again affirms the buffer effect of the intervention and suggests an indirect and positive effect on the mental health of the mothers of the experimental group. Based on this analysis, the control group is theoretically configured as a group at risk and in need of intervention, a fact that forces to review the ethics of interventions and clinical trials when the effect of the intervention is marginal or even maintenance (avoid that they worsen) of certain variables.

*Hypothesis 4. The Parental Reflective Function will have a modulating role between the pre and post-intervention maternal variables.*

The findings of this study showed that PRF alone did not have a significant effect on the pre and post-intervention of the mother and child variables, but indirect effects could be observed.

It was possible to see that in the mothers with low reflective functioning (category less than 3), the relationship between the basal level and the post-intervention of the quality of the mother's Parenting Interactions was more intense, with the role of the low levels of PRF appearing in the findings before reported about mother-child Parenting Interactions (the lower the basal level, the lower post-intervention level and vice versa).

This result is interesting, firstly, because it allows partially locating PRF in relation to maternal behaviors interacting with their child. Secondly, the buffer effect of the intervention appears again, while the mothers with worse reflective basal functioning were the ones who did not attend the intervention and who were also

observed to have a lower quality of the mother's Parenting Interactions. It could be observed then that these same mothers tended to become more polarized in their maternal behaviors.

In the third place, it is interesting to investigate the influence of low reflective functioning on the quality of the Parenting Interactions with their children and the absence of this finding in the ones with good PRF, which were the ones who generally attended the intervention.

Interventions with Videofeedback, using such a concrete and real strategy for mothers' representational and behavioral change (Beebe, 2003; McDonough, 2000; Thiel in Cierpka, 2012), help enrich and extend the range of interactions that the mother can deploy in interaction with her child, promoting affective attunement and adequate reading and response to signals from the child (Bakermans-Kranenburg et al., 2003; Fukkink, 2008; Hoivik et al., 2015).

In this sense, the buffer effect of the intervention and the mediating role of PRF reappear, in that it allows to adapt the mothers' ways of thinking about their children and thus modify their behaviors when relating to them. On the other hand, those with reflective functioning that is absent or with clear faults, will tend to worsen their maternal behavior and will do so easily in the face of stressful and adverse situations, since their functioning will be more focused on behavioral aspects and will be unable to reflect on their own states mental and those of their child (Bammens et al., 2015; Fonagy et al., 2004; Grienberger et al., 2005; Slade, 2005; Suchman et al., 2008; Smaling et al., 2016).

In summary, like other studies, the findings in this sample confirm what the theory proposed in relation to the failure in PRF and the low quality of maternal competences (eg, Grienberger et al., 2005) and does not directly confirm the

hypothesis discussed above that the mothers who conceive their children as a subject with a mind end up promoting adequate socio-emotional development of the child as some studies have done (e.g. Slead et al., 2013; Smaling et al., 2016).

*Hypothesis 5. The mothers who attend the intervention, will show better levels in Mentalization, compared to dyads without intervention.*

It is observed that the quality of the mothers' Parenting Interactions is marginally a significant predictor of the number of references to mental states in a story-telling situation, even considering the educational level, but explaining only 6.9%. It can be observed that the educational level does not have a direct influence on the language of mental states, which, together with the fact that the quality of the mother's Parenting Interactions is a significant predictor, leads one to think of those studies that have found that the socio-economic level of parents has a moderating effect between cognitive parenting practices and child development, observing that parents with higher SEL tend to involve children more in conversations, read more with them and expose their children to more learning experiences that are associated to a better general development, but there would not be a direct influence of the educational level on these variables (Shonkoff & Phillips, 2000).

Regarding the direct effect of the intervention on the references to mental states, it is observed that the intervention was a significant predictor of the increase in the number of references to mental states, even considering the basal level of this variable. The results indicate that this happens for desires / emotions and cognitions, but it is only significant to the increase in cognitions, and this model explains 17.7% of the variance.

This positive change in the number of cognitions could be related to evolutionary aspects that do not necessarily respond to the effect of the intervention,

however, the basal level of mental state references in the first evaluation was not a significant predictor for the second evaluation. Regarding the evolutionary aspects, several studies have shown how mothers modify their references to mental states during the children's first years (Ruffman et al., 2002, Taumoepeau & Ruffmann, 2006, 2008). The findings show that mothers adapt their language according to the child's age and that they tend to talk more about desires until 15 months of age, when they begin to increase the use of cognitions and then, at 24-33 months of age, they tend to talk more about cognitions and thoughts than in earlier times. On the other hand, the children that make up this sample had an average of 44.7 months of age at the beginning of the intervention, at which time mothers tended to refer more to desires and emotions than cognitions and the same thing happened in the second evaluation, which is contrary to the findings of the studies just mentioned in relation to normative aspects of development. This result allows to think that given the vulnerability characteristics of the sample, it is possible that mothers do not have the necessary capacity to adequately adapt to the evolutionary period of their children by modifying their references to mental states and, on the other hand, the change in the use of cognitions in the interaction with their children is quite possibly attributable to the effects of the intervention.

In this regard, it is important to highlight the objectives and methodology of the intervention that may have promoted these changes in the use of greater mental language in interaction with children and the increase in the frequency of references to cognitions. First, this finding is consistent with the objectives of the first sessions which were to identify the different levels of perception (external world, body, internal world) and types of mental states (feelings, thoughts, beliefs, etc.), as well as the incorporation

of psychoeducational elements that would allow mothers to be guided about the abilities of their children according to the evolutionary period they are going through.

Another element of the intervention that may have influenced this change has to do with the use of Videofeedback, which is a concrete strategy for the recognition and approach of mental states and that promotes the use of reflexive functioning. Finally, the use of Videofeedback requires that the facilitators maintain a content-focused and resource-focused attitude and, at the same time, work with the caregivers at different levels and in parallel (content of the conversation, verbal and non-verbal expressions, relationships between group members, etc.). It is thus that the management of the intervention will be configured in a relational offer for the mother, an offer that has the same quality as the one the mother is expected to put into practice in the relationship with her son (Murphy et al., 2012).

*Hypothesis 6. The mothers who attend the intervention, will show better levels of quality in mothers' Parenting Interactions with their children, compared to dyads without intervention.*

The results of the intervention indicate that the experimental group in general improves and the control group in general worsens in the quality of the mother's Parenting Interactions with their children, but the differences between both groups were not statistically significant. What is significant is the predictive value of the intervention on this variable: the basal level of the quality of the maternal Parenting Interactions and the interaction between both variables in the quality of the post-intervention interaction are significant predictors; this model explaining 11.09% of the variance.

In the second and third evaluations, the experimental group reported a mean that is higher than that reported by other studies that have used the same instrument with

different samples (Roggman et al., 2013; Bayoglu et al., 2013; Inocenti, Roggman, & Cook, 2013), which specifically talks about the effect of the intervention. On the contrary, the control group reported lower and lower results than the average observed in other studies.

Permanence and amplification of the change were observed in the experimental group and, although the improvement for the third evaluation is slight, it means an increase in the differences between a group of mothers with intervention versus one without intervention. In the case of this last group, the levels reached in the quality of the mother's Parenting Interactions are below the averages of several studies with this instrument, which on the one hand can turn this group into a group in need of intervention and, on another, a fact that reaffirms the buffering effect of the intervention in this study.

The results of this intervention are consistent with evidence about interventions with Videofeedback when pointing out the direct effects on sensitive behaviors and the quality of the caregiver-child relationship (e.g. Bakermans-Kranenburg et al., 2003, Fukkink, 2008). On the other hand, it is also consistent with the studies that have reported that the caregivers who improve the most are those with better basal functioning and that the opposite happens with those with worse basal functioning (Pontoppidan et al., 2016), as well as with the interventions that have shown preliminary results of progressive improvements in the course of evaluations (Dozier et al., 2013; Fisher et al., 2016; Nese et al., 2016).

In light of these results, which indicate that the mothers who benefited most from the intervention were those with the best basal level in the parenting variables, it is possible to think about two central elements in the design of interventions: a) characteristics of the target population, and b) design of universal interventions.



Regarding the first point, Jacobvitz (2008) described that the mothers with secure attachments are those who tend to benefit more from interventions compared to those classified as insecure, especially in the case of interventions that promote reflection on one's life, the establishment of relationships of trust and confidence, and the increase of sensitive behaviors. In the case of this study, despite the small sample size, it was possible to observe qualitatively that the mothers who improved the most in the quality of their Parenting Interactions with their children were those with attachment classified as secure.

In this sense and connected to the second point, there is enough evidence that speaks of the scope of universal interventions and the strategies with the greatest proven effectiveness. Ulfsson, Enebrink, & Lindberg (2014) analyze the effectiveness of a universal intervention in Stockholm and found that it was effective in promoting parental self-efficacy. However, they also observed that families benefited from the intervention differently depending on their characteristics at baseline, benefiting the ones with the worst levels of mental health at the beginning and the ones with university education. On the other hand, Lindsay & Totsika (2017), who compared 12 universal parenting programs argued that parents who participated of the interventions improve significantly in parenting strategies and parental self-efficacy comparing to other groups without intervention. However, parents of the intervention group did not improve in parental stress and parental satisfaction, specially those who attend to short interventions (3-5 sesiones), comparing with parents of longer programs (6-10 sesiones).

*Hypothesis 7. Avoidance and Anxiety in attachment will be significant predictors of the change in mentalization and quality of mothers' Parenting Interactions with their*

*children, after the intervention and compared to a group of mothers without intervention.*

Both intervention attendance (versus non-attendance), and the attachment anxiety and the basal level of risk in SED appeared as significant predictors of the risk reduction in SED after the intervention, explaining 34.32 % of its variance. In addition, intervention attendance alone was a significant predictor of the self-regulation subscale for the second evaluation, accounting for 30.89% of its variance.

This finding is consistent with the literature related to interventions focused on parenting and mentalization. However, it is interesting to note that in the case of the risk variable in SED, statistically significant differences are observed within the experimental group, which confirms more than the intervention's buffer effect, observing a positive and direct effect on this variable. It is possible that these changes and "adjustments" in the mothers' concerns for their children, were to have been intentioned by the objectives of the intervention to exercise the perception and reading of the thoughts and feelings of others, and develop the ability to understand own thoughts and feelings and those of the children through psychoeducational methodologies.

These results are also consistent with interventions that use Videofeedback with results that favor children's social-emotional development (e.g. Fukkink, 2008; Pontoppidan, Klest & Moller, 2016; Pontoppidan, 2015; Riera, 2016; Salomonsson, Sorjonen & Salomonsson, 2015; Yarger, Hoyw, & Dozier, 2009).

As already mentioned, Videofeedback seeks that it is the parents themselves who discover themselves in their competences, increasing the mothers' feelings of self-efficacy, which is a key component for the change in the relationship with their children, which has been indicated by the participants of this type of intervention (Doria

et al. 2014). Thus, the fact of seeing oneself in a secure and trusting context, configures a reflexive instance that enhances skills already existing in mothers and that mobilizes them to incorporate these behaviors consciously into their behavioral repertoire, thus favoring their children's socio-emotional development.

Finally, it was observed that the lack of attendance to the intervention had a moderating effect between attachment anxiety and parental stress after the intervention, which configures the control group again as a clinical group in need of intervention.

### **9.3 Mothers' profiles**

*Hypothesis 8. It will be possible to configure mothers' profiles according to PRF levels and the quality of the maternal mothers' Parenting Interactions and it will be possible to distinguish pre-and post-intervention.*

As of a cluster analysis, it was possible to distinguish four mothers' profiles according to the variables of interest at the basal level, which generally tended to be grouped by risk in their child's SED and parental stress level. There are good grounds for considering that parental stress and children's behaviors are more easily identifiable and manifest variables for mothers ("tip of the iceberg") and that for this reason they tend to group together like this. In this way, and as it was seen in the results at the basal level, it was possible to differentiate the mothers according to risk levels of in the exercise of parenting.

The groups that are distinguished are in relation to the sample mean for the variables of interest, reason for which it is worth highlighting again that this sample presents psychosocial risk characteristics. The groups were: "average mother with children with low risk in SED"; "Average mother", "mother with adequate reflective

functioning and difficulties in the exercise of parenting"; and finally "mother with risk situation in the exercise of parenting".

The PRF levels that were identified within each group were consistent with what was seen in the pre- and post-intervention analyzes, observing that those mothers with greater reflexive functioning are those who showed better levels in other personal variables and their children. In this sense, it is possible to argue that mothers who are more able to keep their children and themselves as mothers in mind, will show better functioning in other mental health variables of their own (levels of parental stress, quality of mother's Parenting Interactions with their child) and in the development of their child (risk in the DSE). The same happened with the post-intervention evaluation, observing that the mothers with better reflexive functioning showed greater capacity to take advantage of the intervention in the quality of the maternal Parenting Interactions and the risk levels in their children's SED.

In particular, about the group "average mother with children with low risk in SED" it could be highlighted that in the presence of rudimentary reflective functioning, but not negative, it is possible to find mothers with less awareness about the mental processes and the internal world, which could allow them to exhibit adequate behavioral functioning in environments of greater psychosocial risk. In the case of those who did not attend the intervention, they showed a considerable increase in SED risk compared to the intervention group that practically did not increase. Here it is possible to emphasize that the mothers who went to the intervention presented greater anxiety in attachment and it is possible to think that they benefited from the intervention from the psychoeducational elements that helped them to know aspects of the development of their children and to improve in the relationship with them.

In the case of the "average mother" something similar happens; the ones that attend the intervention have greater anxiety and less avoidance in attachment, but that diminish marginally in the quality of the relationship with their children. It is worth distinguishing about the ones who attend the intervention in relation to the decrease in SED risk and parental stress, and the increase in the PRF, compared to the ones who do not attend. Possibly these mothers also benefited from the intervention in relation to psychoeducational aspects of the exercise of parenting.

In the group "mother with adequate reflexive functioning and difficulties in the exercise of parenting", there are evident difficulties in the exercise of parenting with their children, but accompanied by adequate reflective functioning. The parental stress levels are almost in the clinical range and the SED risk is very high, as is the level of avoidance in attachment and less the anxiety in attachment. Likewise, the differentiation between the control group and the experimental group is quite evident, observing that the ones that attend the intervention significantly reduce the risk in the variables of the mother and the child, also remarkably improving in the relationship with their children, something that happens on the contrary with the control group. The most distinctive of this group are the differences in reflective functioning, observing that those with adequate functioning are those that showed evident improvements in their parenting..

The group "mother with risk situation in the exercise of parenting" is the smallest and most at risk group in the sample, with clinical levels and very high in the variables of the mother and child at basal level and second evaluation, although they decrease for the latter. None of these mothers attends the intervention, but there is evidence of an increase in their reflexive functioning, which allows to think about the relationship of PRF and the marginal decrease in risk, but above all it allows to think about the improvement in the quality of the maternal Parenting Interactions with her

child, perhaps being able to describe that the mother with a higher PRF, to some extent, is able to shield the child from the effect of his mental health difficulties.

In general terms, it is possible to distinguish mothers from their parental stress and risk in children's social-emotional development. In a qualitative manner, it is possible to identify the influence that their attachment style, reflective functioning and intervention assistance may have had on their parenting and parental stress coping strategies, specially the fact that mothers with low reflective functioning and insecure attachment styles tend to interrupt affective communication with their children and struggle with emotion co-regulation (Grienenberger et al., 2005; Slade et al., 2005).

That is, the findings provide partial support for the premise that improvement in the mother's capacity to make inferences about intentions and emotions underlying her own and her child's behavior corresponds to improvement in her capacity to interact sensitively and contingently with her infant/toddler (Suchman et al., 2010).

On the other hand, these results may be read under the emotion socialization construct, which is a multifacetic process that has been linked with social-emotional development and children's flourishing (Brophy-Herb, et al., 2016). Emotion socialization refers to the direct and indirect ways in which parents foster children's ability to experience, identify and understand emotions and their context of arisement, as well as how to manage them in an efficient way (Eisenberg et al., 1998; Hastings & De, 2008; Morris et al., 2007). Despite the advance in scientific evidence in this field, there is less evidence about the socialization of positive emotions in the preschool and adolescence period. On the one hand, it has been seen that the fact that parents talk with their children about the appropriate ways of expressing emotions and about their causes and consequences is beneficial for the development of emotional competence in the children themselves (Denham & Kochanoff, 2002). But, on the other hand, it has been

seen that some of the explanations that parents can give their children about emotions can be down-regulated and, in fact, it has been seen that those parents that allow less expression of positive affects during play tend to have children with poorer physiological regulation of emotions (Halberstadt et al., 2013; Yi et al., 2016).

## **10. Conclusions**

### **10.1 Clinical implications**

It is important to emphasize again the low PRF levels of this sample, since according to the related literature, they are consistent with high levels of insecurity and disorganization in attachment, as well as associated with high levels of trauma and deprivation in childhood, and risk factor for parenting and child's socio-emotional development (e.g. Enseink et al., 2014, 2016).

In this sense, it is necessary that the general clinical approach and in cases with vulnerability consider this variable for its evaluation and as a possible focus of intervention, since it has been possible to observe that it is a variable present in the changes that occurred due to the interventions (Asen & Fonagy, 2012; Oppenheim et al., 2004;), as well as being a capacity that is possible to promote and improve (Camoirano, 2017). More specifically, a challenge for both clinical practice and for research and intervention design is to look at the specific dimensions of PRF (e.g. PRF-child, PRF-caregiver) by examining its influences and distinguishing the associations of these dimensions with the children's development and the relationship established by their caregivers with them (Smaling et al., 2016; Suchaman et al., 2010). This becomes relevant in clinical practice when considering the complexity and dynamism of PRF and

literature referring to the differences among quality of mentalizing ability depending on the object of mentalization (Fonagy et al., 2012).

Thus, a low score can refer to different types of failures in PRF (simple, disavowal, bizarre, rejection); a mean score can refer to poor and simple or pseudomentalizing or unstable functioning (Fonagy et al., 1998). There are some pioneer studies that have investigated the differentiation of FR types in the context of parenting. Two examples are from the *Family Minds* intervention (Adkins & Fonagy, developing manuscript; Bammens et al., 2015) which from the same interview of this thesis, considers three types of PRF (Global RF, Parent-RF and Child-RF) and finds significant changes in the Child-RF after the intervention. On the other hand, Smaling and colls. (2016) who identified three dimensions of self-focused, child-focused and relationship-focused RF, who found that the self-focused one of the mother was positively correlated with externalizing behaviors and negative emotionality with her baby, and that the relation- focused one correlated negatively with physical aggression towards the child.

About the variables that prevailed for the grouping of the mothers, it is of clinical relevance to consider that some variables (eg, stress and SED risk) are like the tip of the iceberg to reach other fundamental variables related to parenting and the child's SED, especially the mother's reflective functioning. Likewise, as of the results and the conformation of the clusters, it is again confirmed that the associations between variables of the mother, the child and the relation are not linear and that they are due to an interplay of these same variables and other influences.

This way of conceiving relationships is more typical of the transactional model of interventions, the model on which Video Interaction Guidance (McDonough, 1995, 2000) is based; designed for multiproblem families with low adherence, which



incorporates aspects of family systemic theory, of the transgenerational transmission of relationship patterns and the multiple contexts of relationship in which a child develops, interventions in which a key component is the observation of the caregiver-child relationship in different environments and the focus on the family resources.

Added to this, considering the important influence of caregiver variables on the child, it should also be noted that mothers with high stress and associated symptoms should be referred to individual treatments, but it is also important to consider the assistance to dyadic interventions that directly incorporate the infant and the relationship between both in the psychotherapeutic process, since intervening in variables of the mother will not necessarily lead to changes in the dyadic relationship (e.g. Cooper & Murray, 1995), but it has been described that interventions focused on the relationship tend to positively influence the caregivers' mental health (Barlow *et al.*, 2015).

Thus, interventions should promote the ability to "amplify and construct", which refers to the capacity to mentalize even in stressful situations, that also fosters attachment security, self-agency and affective regulation (Fredrickson, 2001, Mikulnicer & Shave, 2007). In this same sense, Videofeedback appears as a very pertinent intervention strategy since it promotes the reflective capacity of the caregiver and is a concrete vehicle for the caregiver to explore his/her own internal world and that of his/her child. (Slade & Sadler, 2007). Videofeedback provides an opportunity to reflect together with the therapist about the possible meanings of the children's behaviors and expressions and, in this way, to develop skills to read his/her own internal world and that of the child's based on external signals and, at the same time, to relate these signals to the ability to reflect on the minds of others based on mental states (Fonagy, Bateman & Luyten, 2012).

Finally, it is important to reflect on the results of the intervention that showed that in general, mothers with better reflective functioning were the ones who benefited most from the intervention, as well as the fact that the mothers' basal level appeared as a significant predictor of the change due to the intervention. If mothers tend to be consistent with their basal functioning, interventions should be careful in working with heterogeneous samples and/or universal interventions with broad focus, since it is possible that the effects of the interventions themselves become moderate, not because of their quality, but because of the heterogeneity and particular needs of the target population (Cassidy et al., 2017).

## **10.2 Implications to research and limitations of the study**

The intervention design and the research that supports these designs need to have evaluation instruments that are capable of delivering a screening of the sample, but that are also sensitive and specific to the change resulting from the interventions. In this sense, the instruments used in this study appeared useful for this purpose. In particular, PRF evaluation through the FMSS-RF was configured as a very useful tool for screening this competence and which is cost-effective in its application. It should be noted, however, that the complexity of PRF and its accurate assessment requires training by the coders.

On the other hand, from the analysis of this study, it was possible to identify a moderate association between PRF and socio-emotional development, but it was not possible to establish direct and significant relationships of this competence with other variables related to parenting and mental health. Mother. In this sense, what are the mechanisms by which PRF operates remains to be discovered. Several studies have studied it as a mechanism in which attachment and other maternal variables operate, but

not all have been conclusive (eg, Grienenberger et al., 2005, Rutherford et al., 2013, Wong, 2012). It is thus that the distinction of the dimensions of RF also becomes relevant in the design of research in psychotherapy and interventions in parenting.

On the other hand, despite the fact that neuroscience has made it possible to advance in the knowledge of the change mechanisms that underlie videofeedback, it is worth to note the need to move towards intervention designs and research methodologies that allow to study the intervention process with videofeedback in itself and the role that reflective functioning and group format play in that process. Here it becomes necessary to highlight the Chilean studies of De la Cerda and colls. (2016) when studying the manifestations of reflective functioning in psychotherapy and its regulatory function.

In relation to what was mentioned earlier in the implications for clinical practice, there are some limitations in this study which should be taken into account. Firstly, the intervention and control groups were not perfectly matched at baseline, especially the fact that it was not possible to control for the level of motivation to change in both groups, all of which is related to the cluster randomization. In addition to this, it is possible that there was some social desirability in mothers to accept participation in the study, at being recruited by the same kindergarten that their children attended.

Despite the formal declaration of independence of the information that would be handled in the intervention team, the kindergarten makes up a support network of great relevance for mothers and of great influence for children, especially for the mothers who work, being the place where children spend on average 45 hours a week (Papalia et al., 2010; Shonkoff & Phillips, 2000). The methodological and ethical implications of RCT should also be noted (Teater, Devaney, Forrester, Scourfield, & Carpenter, 2017). Regarding methodologies, the fact that the intervention designed was compared with the

fact of not receiving intervention and not with a different modality of intervention is distinguished. This may happen with pilot interventions such as this study. About the ethical aspects in this particular study, the recruitment of the sample was carried out by kindergartens and did not configure a clinical sample, reason for which the control group did not receive intervention, but meetings were held to return the information collected to the kindergartens of this group.

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## 12. Annexes

## 12.1 Tables

Table 26

*SED risk regressed by Parental Stress and PRF*

	Beta	SE	t-value	p-value
Intercept	52.423	3.423	15.142	< 2e-16***
Total parental stress	0.692	0.192	0.547	0.001***
PRF	-2.382	2.118	-0.159	0.268
Stress*PRF	0.115	0.097	0.180	0.244

Table 27

*Parental Stress regressed by attachment avoidance and anxiety*

Coefficients	Beta	SE	t-value	p-value
Intercept	30.181	11.105	2.718	0.0076**
Anxiety	4.852	1.628	2.981	0.0035**
Avoidance	5.552	1.546	3.592	0.0004***
Basic	10.131	10.498	0.965	0.336
Incomplete high-school	4.328	9.456	0.458	0.648
Complete high-school	13.863	8.923	1.554	0.123
Incomplete university	7.716	9.298	0.830	0.408
Complete university	1.417	10.738	0.132	0.895

Table 29

*Maternal Parenting Interactions regressed by attachment avoidance and anxiety*

Coefficients	Beta	SE	t-value	p-value
Intercept	47.6179	2.7386	17.388	< 2e-16***
Anxiety	-0.4531	0.6632	-0.683	0.496
Avoidance	-1.9305	0.6167	-3.131	0.002**

Table 30

*SED risk regressed by attachment anxiety and avoidance*

Coefficients	Beta	SE	t-value	p-value
Intercepto	15.943	23.025	0.692	0.4901
Anxiety	5.956	2.612	2.281	0.0245*

Avoidance	4.552	2.493	1.826	0.0705 .
Incomplete basic	-13.672	24.175	-0.566	0.5728
Complete basic	-10.048	22.155	-0.454	0.6510
Incomplete high-school	-3.246	20.975	-0.155	0.8773
Complete high-school	16.419	20.215	0.812	0.4184
Incomplete university	5.198	20.743	0.251	0.8026
Complete university	-13.046	22.566	-0.578	0.5643
Post-graduate	3.132	34.797	0.090	0.9284

Table 31

*Affection in SED risk regressed by attachment anxiety and avoidance*

Coefficients	Beta	SE	t-value	p-value
Intercepto	5.628	2.387	2.358	0.0201*
Anxiety	0.304	0.270	1.122	0.2640
Avoidance	0.202	0.258	0.782	0.4361
Incomplete basic	-6.191	2.506	-2.470	0.0150*
Complete basic	-6.389	2.296	-2.782	0.0063**
Incomplete high-school	-6.263	2.174	-2.881	0.0047**
Complete high-school	-5.116	2.095	-2.441	0.0162*
Incomplete university	-6.543	2.150	-3.043	0.0029**
Complete university	-6.637	2.339	-2.837	0.0054**
Post-graduate	-1.910	3.607	-0.530	0.5973

Table 32

*SED risk regressed by parental stress*

Coefficients	Beta	SE	t-value	p-value
Intercept	-2.4707	14.4790	-0.171	0.865
Complete basic	-0.7201	15.4419	-0.047	0.963
Incomplete high-school	8.3069	13.9716	0.595	0.553
Complete high-school	17.7504	13.1180	1.353	0.179
Incomplete university	7.7435	13.4696	0.575	0.567
Complete university	-6.0334	15.3836	-0.392	0.696
Total parental stress	1.8267	0.3101	5.891	4.41e-08***

Table 33

*Self-regulation in SED risk regressed by parental stress*

Coeficients	Beta	SE	t-value	p-value
Intercept	-3.0074	6.7360	-0.446	0.656
Complete basic	6.9986	7.1815	0.975	0.332
Incomplete high-school	6.5631	6.5345	1.004	0.317
Complete high-school	8.6391	6.1008	1.416	0.160
Incomplete university	6.6907	6.2643	1.068	0.288
Complete university	-0.2087	7.1544	-0.029	0.977
Total parental stress	0.6670	0.1444	4.619	1.08e-05***

Table 34

*Compliance in SED risk regressed by parental stress*

Coeficients	Beta	SE	t-value	p-value
Intercept	-0.5042	2.6366	-0.191	0.849
Complete basic	-3.5653	2.8119	-1.268	0.208
Incomplete high-school	-0.3775	2.5442	-0.148	0.882
Complete high-school	-0.4057	2.3887	-0.170	0.865
Incomplete university	-1.5955	2.4528	-0.651	0.517
Complete university	-2.1709	2.8013	-0.775	0.440
Total parental stress	0.2367	0.0564	4.193	5.66e-05***

Table 36

*Mental States references regressed by maternal Parenting Interactions*

Coeficients	Beta	SE	t-value	p-value
Intercept	-0.12710	2.67339	-0.048	0.9622
Parenting interaction	0.10827	0.04341	2.494	0.0143*
Incomplete basic	-1.10827	2.74788	-0.403	0.6876
Complete basic	-2.00395	2.51274	-0.798	0.4271
Incomplete high-school	-1.16833	2.39740	-0.487	0.6271
Complete high-school	-0.87581	2.30914	-0.379	0.7053
Incomplete university	0.72733	2.36349	0.308	0.7589
Complete university	-0.16468	2.59541	-0.063	0.9495
Postgraduate	-0.77068	3.88711	-0.198	0.8433

Table 38

*Analysis of Variance of the Parental Reflective Function (ANCOVA)*

Source	Type III Sum of Squares	df	Mean square	F	Sig.
Intercept	23.778	1	23.778	4.992	.041
Kindergarten	.033	1	.033	.007	.934

Intervention attendance (yes)	32.199	1	32.199	6.760	.020
Error	71.448	15	4.763		

Table 39.

*Multilevel regression: Effect of intervention over PRF*

Coeficients	Beta	SE	t-value	p-value
Intercept	1.6800	0.2682	6.2632	0
Intervention attendance (yes)	2.0042	0.4081	4.9100	0

Table 40

*Multilevel regression: PRF after videofeedback regressed by its baseline level and intervention attendance*

Coeficients	Beta	SE	t-value	p-value
Intercept	2.3301	0.6769	3.4422	0.0026
Intervention attendance (yes)	0.6038	0.8029	0.7520	0.4608
PRF_1	0.1647	0.2468	0.6675	0.5120

Table 41

*Multilevel regression: PRF follow-up regressed by its baseline level and intervention attendance*

Coeficients	Beta	SE	t-value	p-value
Intercept	2.8841	0.6063	4.7567	0.0003
Intervention attendance (yes)	0.5097	0.7858	0.6487	0.5519
PRF_1	0.1589	0.2010	0.7905	0.4424

Table 46

*Multilevel regression: Parenting regressed by PRF and intervention attendance*

	Beta	SE	t-value	p-value
Intercept	34.0275	4.8218	7.0570	<2e-16 ***
Parenting interaction	0.2732	0.1840	1.4847	0.1497
FRP_1	-2.0281	2.9242	-0.6935	0.4941



Intervention attendance	3.3045	3.3585	0.9839	0.3342
Intervention attendance *FRP_1	2.2252	2.0148	1.1044	0.2795

Table 48

*Mental States references regressed by attendance to intervention*

Coeficients	Beta	SE	t-value	p-value
Intercept	-2.1944	2.3275	-0.943	0.3510
References MS 1	0.2669	0.2244	1.189	0.2409
Intervention attendance	3.6783	1.5847	2.321	0.0251*

Table 50

*MS references to desires/emotions regressed by attendance to intervention*

Coeficients	Beta	SE	t-value	p-value
Intercept	1.07058	0.84483	1.267	0.2121
References to desires and emotions 1	0.09255	0.23830	0.388	0.6997
Intervention attendance (yes)	2.43149	1.18103	2.059	0.0458*

Tabla 51

*MS references to cognitions regressed by attendance to intervention*

Coeficients	Beta	SE	t-value	p-value
Intercept	0.7856	0.4096	1.918	0.0619
References to cognitions 1	0.2230	0.1910	1.168	0.2495
Intervention attendance (yes)	1.6518	0.5757	2.869	0.0064**

Table 52

*Maternal Parenting Interactions among assessments and study groups*

PICCOLO	Grupo experimental (N=26)		Grupo control (N=88)	
	<i>M</i>	<i>DE</i>	<i>M</i>	<i>DE</i>
Piccolo total 1	<b>40.4</b>	<b>7.8</b>	<b>39.9</b>	<b>6.96</b>
Afecto	10.01	1.96	9.81	1.81

Responsividad	11.38	2.64	11.35	2.1
Aliento	8.70	2.38	9.00	2.7
Enseñanza	10.03	3.17	9.77	2.6
	Grupo experimental (N=20)		Grupo control (N=34)	
Piccolo total 2	<b>42,90</b>	<b>7,567</b>	<b>39,97</b>	<b>8,408</b>
Afecto	10,75	1,832	9,71	2,209
Responsividad	12,15	2,368	11,91	2,179
Aliento	11,15	2,889	10,53	2,654
Enseñanza	8,85	2,681	7,88	3,141
	Grupo experimental (N=11)		Grupo control (N=12)	
Piccolo total 3	<b>43,64</b>	<b>6,592</b>	<b>40,86</b>	<b>6,176</b>
Afecto	10,18	1,401	10,33	1,775
Responsividad	12,18	2,316	11,75	2,179
Aliento	9,55	2,115	8,71	2,289
Enseñanza	11,73	2,328	11,14	2,795

Table 53

*Parenting Interactions regressed by its baseline level and attendance to intervention*

Coeficients	Beta	SE	t-value	p-value
Intercept	17.4759	8.4594	2.066	0.0443*
Parenting interactions	0.5237	0.1931	2.712	0.0093**
Intervention attendance	31.8345	14.1463	2.250	0.0291*
Parenting interactions: Intervention attendance	-0.6797	0.3340	-2.035	0.0475*

Table 55

*Parental stress regressed by its baseline level and attendance to intervention*

Coeficientes	Beta	SE	t-value	p-value
Intercept	25.8430	10.7359	2.407	0.0196*
Total parental stress 1	0.4896	0.1206	4.060	0.0001***
Intervention attendance (yes)	-6.2779	4.4313	-1.417	0.1625
Avoidance	1.2318	2.0071	0.614	0.5420
Anxiety	2.0983	2.4178	0.868	0.3894

Table 56

*Parental stress – DIC regressed by total PS, attachment, and attendance to intervention*

Coeficients	Beta	SE	t-value	p-value
-------------	------	----	---------	---------

Intercept	6.7208	3.4693	1.937	0.0580 .
Total Parental Stress 1	0.3948	0.1218	3.242	0.0020 **
Intervention attendance (yes)	-2.7517	1.4712	-1.870	0.0669 .
Avoidance	0.4528	0.6792	0.667	0.5078
Anxiety	1.1172	0.7803	1.432	0.1580

Table 57

*Parental stress – DC regressed by total PS, attachment, and attendance to intervention*

Coeficientes	Beta	SE	t-value	p-value
Intercept	2.1765	4.4466	0.489	0.6266
Total Parental Stress 1	0.6189	0.1139	5.433	1.49e-06 ***
Intervention attendance (yes)	-3.3393	1.8146	-1.840	0.0714 .
Avoidance	0.6525	0.7975	0.818	0.4170
Anxiety	1.9473	0.9813	1.984	0.0525 .

Table 58

*Means in SED risk among assessments and study groups*

	Grupo experimental (N=26)		Grupo control (N=97)	
	M	DE	M	DE
<b>ASQ-SE total 1</b>	<b>52,69</b>	<b>28,433</b>	<b>56,86</b>	<b>30,587</b>
Auto-regulación	21,5385	15,28197	21,4583	13,01652
Conformidad ( <i>compliance</i> )	3,2692	4,67810	5,1546	5,07514
Comunicación	2,3077	4,73936	1,7010	3,13636
Funcionamiento adaptativo	5,3846	5,27695	5,6915	7,71122
Autonomía	9,0385	5,10279	9,0206	4,12305
Afecto	1,9231	4,01918	1,4433	2,69633
Interacción con otros	7,6923	7,64601	9,1667	7,96924
	Grupo experimental (N=20)		Grupo control (N=40)	
<b>ASQ-SE total 2</b>	<b>44,7500</b>	<b>20,55000</b>	<b>63,0000</b>	<b>34,60028</b>
Auto-regulación	15,2778	10,35718	22,6250	16,56330
Conformidad ( <i>compliance</i> )	3,8889	4,39102	6,5000	6,32456
Comunicación	,2778	1,17851	1,6250	3,27921
Funcionamiento adaptativo	7,7778	6,23610	7,7500	8,69350
Autonomía	7,5000	4,61774	9,3750	3,95285
Afecto	1,7647	2,46296	3,3750	3,82091
Interacción con otros	9,4444	8,89297	9,5000	7,57865
	Grupo experimental (N=13)		Grupo control (N=18)	
<b>ASQ-SE total 3</b>	<b>49,2308</b>	<b>27,67717</b>	<b>60,8333</b>	<b>33,70504</b>
Auto-regulación	17,9167	14,21560	25,0000	15,71226
Conformidad ( <i>compliance</i> )	2,9167	3,96481	5,0000	4,67707

Comunicación	1,6667	2,46183	2,9412	3,97603
Funcionamiento adaptativo	4,1667	6,33652	5,5882	7,47545
Autonomía	5,8333	3,58870	8,8235	4,85071
Afecto	1,6667	3,25669	2,9412	3,09173
Interacción con otros	9,17	5,967	8,24	6,109

Table 60

*Frequency of SED risk among assessments and study groups*

	Experimental group (N=26)		Control group (N=97)	
	<i>f</i>	%	<i>f</i>	%
Baseline				
Risk	6	23,1	34	35,1
Adequate	26	76,9	63	64,9
Post-intervention				
Risk	1	5	14	35
Adequate	19	95	26	65
Follow-up				
Risk	3	23,1	8	44,4
Adequate	10	76,9	10	55,6

Table 61

*SED risk regressed by its baseline level and attendance to the intervention*

Coefficients	Beta	SE	t-value	p-value
Intercept	51.3604	12.8136	4.008	0.0001 ***
Total SED risk 1	0.5459	0.1330	4.104	0.0001 ***
Intervention attendance	-17.9770	7.4549	-2.411	0.0191 *

Table 62

*SED risk regressed by its baseline level, attachment, and attendance to intervention*

Coefficients	Beta	SE	t-value	p-value
Intercept	13.0584	17.5095	0.746	0.45897
Total SED risk 1	0.4459	0.1341	3.326	0.00157 **
Intervention attendance	-22.5241	7.1940	-3.131	0.00279 **
Avoidance	5.6230	3.6203	1.553	0.12612
Anxiety	9.9005	3.9377	2.514	0.01488 *

Table 63

*Self-regulation in SED risk regressed by its baseline level and attendance to intervention*

Coefficients	Beta	SE	t-value	p-value
Intercept	18.3294	5.5410	3.308	0.00166 **
SED risk – Self-regulation 1	0.5734	0.1188	4.826	1.15e-05 ***
Intervention attendance	-7.8171	3.5910	-2.177	0.03380 *

Table 64

*Parental stress regressed by its baseline level, attachment anxiety and attendance to intervention*

	Beta	SE	t-value	p-value
Intercept	32.37914	7.42289	4.36207	6e-05 ***
Total Parental Stress 1	0.52229	0.10258	5.09133	1e-05 ***
Anxiety 2	6.17581	1.91149	3.23088	0.00218 **
Intervention attendance	-2.62827	4.03846	-0.65081	0.51815
Anxiety 2* Intervention attendance	-7.93245	3.78211	-2.09736	0.04104 *
Simple Slope				
Non-attendance (-1 SD)	9.07	2.68	3.38	0.0014**
Attendance (+1 SD)	1.67	2.39	0.70	0.4864

Tabla 65

*Solution for 3 and 4 clusters: Parenting, Attachment, SED risk, and PRF*

	3 conglomerados			4 conglomerados			
	1 (N=23)	2 (N=67)	3 (N=14)	1 (N=23)	2 (N=36)	3 (N=31)	4 (N=14)
Parenting interaction	32.48	44.12	35.86	32.48	43.00	45.42	35.86
Anxiety	3.18	3.21	4.49	3.18	2.85	3.62	4.49
Avoidance	3.61	2.62	3.83	3.61	2.82	2.39	3.83
SED risk	38.04	51.34	97.14	38.04	69.58	30.16	97.14
Total Parental Stress	71.52	65.45	106.92	71.52	70.56	59.52	106.92
FRP	2.82 (N=11)	2.44 (N=25)	2.00 (N=3)	2.82 (N=11)	2.58 (N=12)	2.31 (N=13)	2.00 (N=3)

Table 66.

*Analysis of Variance of cluster analysis k-means*

	Mean Square	Cluster gl	Mean Square	Error df	F	Sig.
Parenting Interaction	22.804	3	58,811	100	,388	,762
Anxiety	5.516	3	,998	100	5,525	,001
Avoidance	2.343	3	1,233	100	1,900	,134
Total Parental Stress	7670.676	3	170,383	100	45,020	,000
SED risk 1	26804.439	3	130,922	100	204,736	,000

**12.2 Figures**

Figure 2 and 3. Adequate and poor mentalizing

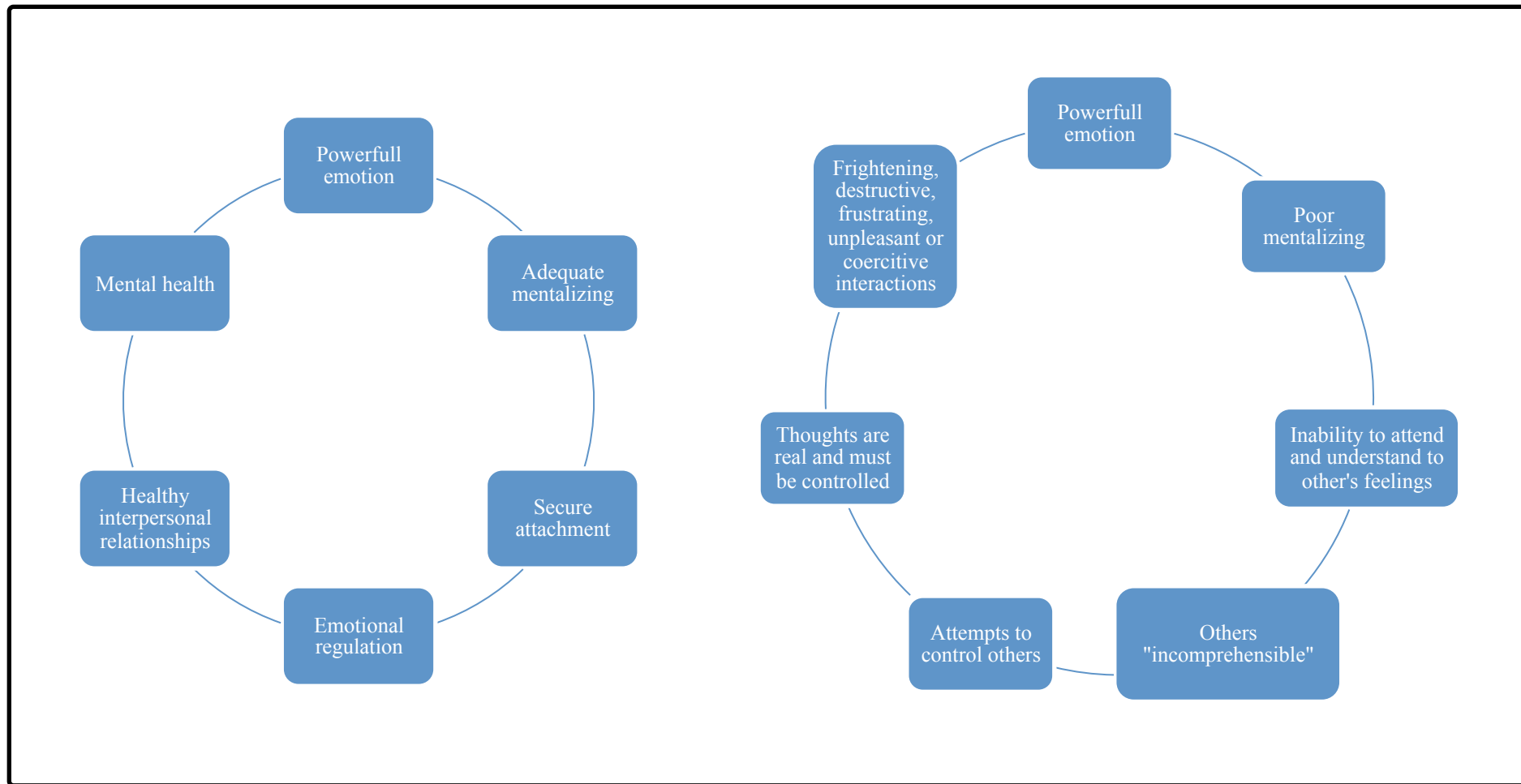


Figure 2 and 3. Cycles of inhibition of mentalizing in a family  
Source. Tiddly Manuals, 2010

Figure 11. Influence of the attachment anxiety over Parenting Interactions of mothers

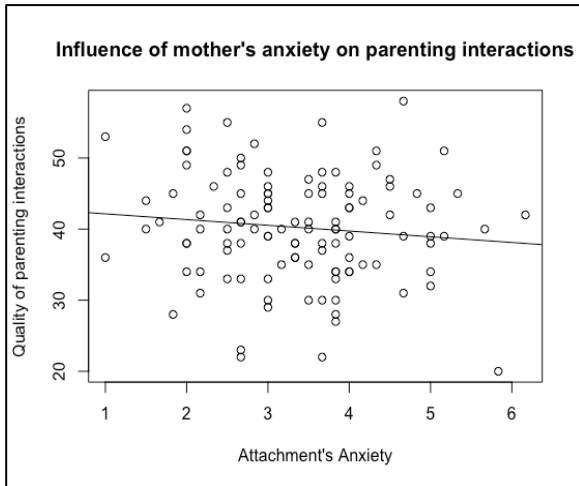


Figura 11. Influencia de la ansiedad en el apego de la madre sobre la calidad de las interacciones maternas

Figura 23. Dendograma

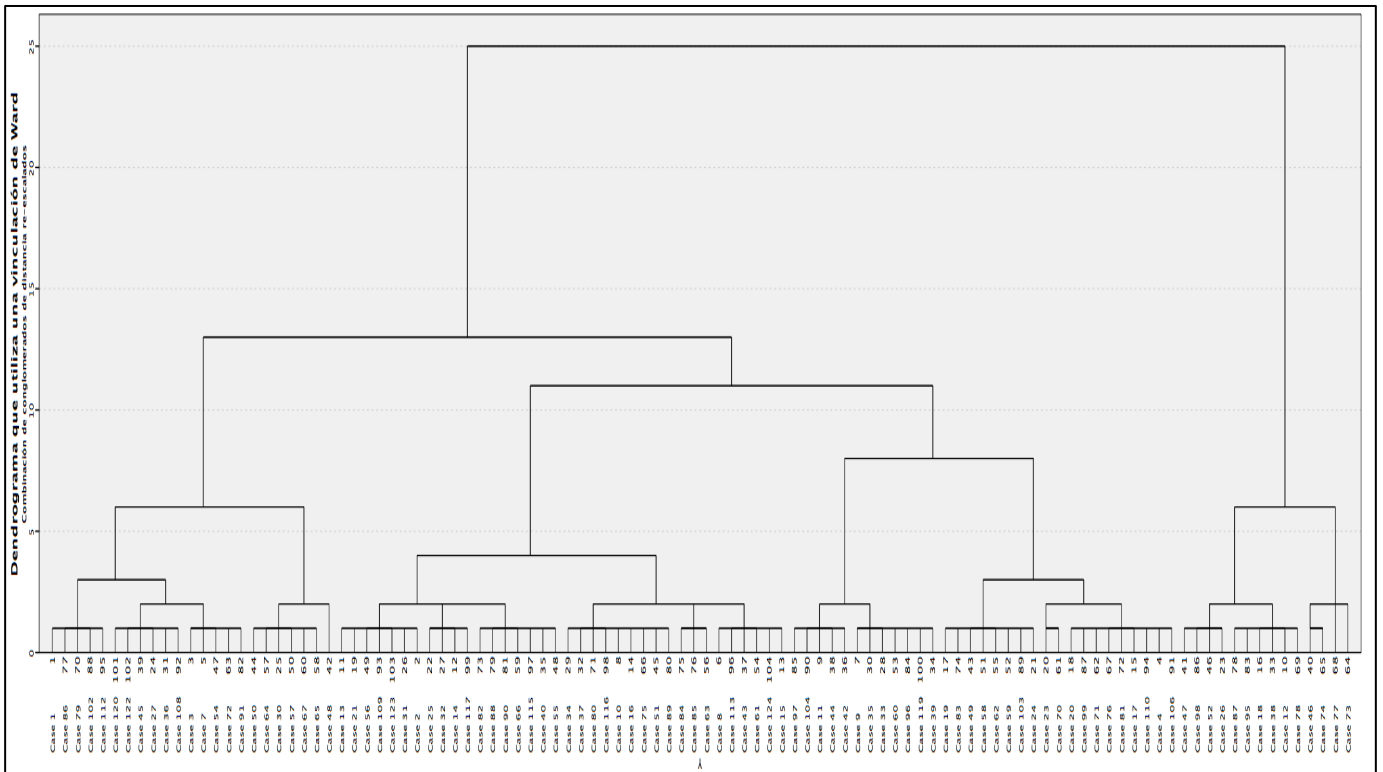


Figura 24. Dendograma



## 12.3 Approval letter of the Ethics Committee of Human Research of the University of Chile



UNIVERSIDAD DE CHILE - FACULTAD DE MEDICINA  
COMITÉ DE ÉTICA DE INVESTIGACIÓN EN SERES HUMANOS

1/2



27 OCT. 2015

### ACTA DE APROBACIÓN DE PROYECTO

FECHA: 27 de octubre de 2015.

**PROYECTO:** "EFECTO DE UNA INTERVENCIÓN CON VIDEO-FEEDBACK EN LA MENTALIZACIÓN PARENTAL Y EN LA INTERACCIÓN MADRE-HIJO(A) DE MADRES DE PREESCOLARES "

**INVESTIGADOR RESPONSABLE:** SRTA. CATALINA SIEVERSON RADDATZ

**INSTITUCIÓN:** PROYECTO DE TESIS PARA OPTAR AL GRADO DE DOCTOR EN PSICOTERAPIA, DIRECTOR DE TESIS: DRA. MARÍA PÍA SANTELICES, PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE. CO-TUTOR: DRA. VANIA MARTÍNEZ, ESCUELA DE POSTGRADO, FACULTAD DE MEDICINA, UNIVERSIDAD DE CHILE.

Con fecha 27 de octubre de 2015, el proyecto ha sido analizado a la luz de los postulados de la Declaración de Helsinki, de la Guía Internacional de Ética para la Investigación Biomédica que involucra sujetos humanos CIOMS 1992, y de las Guías de Buena Práctica Clínica de ICH 1996.

Sobre la base de la información proporcionada en el texto del proyecto el Comité de Ética de Investigación en Seres Humanos de la Facultad de Medicina de la Universidad de Chile, estima que el estudio propuesto está bien justificado y que no significa para los sujetos involucrados riesgos físicos, psíquicos o sociales mayores que mínimos.

En virtud de las consideraciones anteriores el Comité otorga la aprobación ética para la realización del estudio propuesto, dentro de las especificaciones del protocolo.



27 OCT. 2015

**INTEGRANTES DEL COMITÉ DE ÉTICA DE INVESTIGACIÓN  
EN SERES HUMANOS**

<b>NOMBRE</b>	<b>CARGO</b>	<b>RELACIÓN CON LA INSTITUCIÓN</b>
Dr. Hugo Amigo	Presidente (S)	Sí
Sra. Gina Raineri	Secretaria Ejecutiva	Sí
Dra. Lucia Cifuentes	Miembro	Sí
Dra. María Eugenia Pinto	Miembro	Sí
Dra. Angela Delucchi	Miembro	Sí
Dr. Miguel O'Ryan	Miembro	Sí
Sra. Claudia Marshall	Miembro	Sí
Dra. Gricel Orellana	Miembro	Sí

Santiago, 27 de octubre de 2015.

  
**Prof. Gina Raineri B.**  
**Secretaria Ejecutiva CEISH**



GRB/lom.  
c.c.: - catasieverson@gmail.com  
- Proyecto N° 139-2015  
- Archivo ACTA AP-112

## 12.4 Informed consents and authorization letters



PONTIFICIA  
UNIVERSIDAD  
CATÓLICA  
DE CHILE

### ESCUELA DE PSICOLOGÍA PROYECTO FONDECYT 1130786

#### **CARTA DE AUTORIZACIÓN (Directivos/as de los establecimientos educacionales)**

Usted ha sido invitado(a) a participar en el estudio “Diseño, implementación y evaluación de una intervención en Apego/Mentalización para madres y padres de niños de 3 años que asisten a jardín infantil” a cargo de las investigadoras, María Pía Santelices y Chamarrita Farkas, docentes de la Escuela de Psicología de la Pontificia Universidad Católica de Chile. El objeto de esta carta es ayudarlo(a) a tomar la decisión de participar en la presente investigación, la cual tiene la aprobación de la Escuela de Psicología de la UC y de la Junta Nacional de Jardines Infantiles, JUNJI.

El propósito general del estudio es investigar los efectos de una intervención en apego/mentalización orientado a padres y apoderados, en el apego, teoría de la mente y desarrollo de los niños(as). También se pretende evaluar el efecto de la intervención en variables de los padres. Para esto, el presente proyecto ha diseñado en conjunto con educadoras, una intervención que será implementada por psicólogas de la UC, en el jardín infantil. Los resultados y conclusiones de este estudio permitirán apoyar los programas de los jardines infantiles en términos del desarrollo más integral de los niños(as).

Los beneficios a la institución consisten en que el personal educativo participará en un programa que favorece el apego y la mentalización, quedando el material de la intervención a disposición del jardín. Además, los resultados contribuirán al desarrollo del conocimiento científico para favorecer el desarrollo integral de la infancia temprana en nuestro país. Es importante agregar que el presente estudio no contempla ningún tipo de riesgo para los participantes.

A través de la presente se le solicita la autorización para la participación del jardín infantil, del cual usted es directora. Esta participación es voluntaria. Tiene el derecho a decidir abandonar el estudio sin necesidad de dar ningún tipo de explicación y sin que ello signifique ningún perjuicio para usted ni para el establecimiento educacional. Su autorización al estudio como directivo no obliga a la participación en el mismo de apoderados y personal educativo, quienes serán consultados para participar de manera voluntaria e independiente, solicitándoles la firma de una carta de consentimiento. En dicho consentimiento se explicitará que podrán retirarse del estudio en cualquier momento sin ninguna consunción, y que tienen el derecho a no responder preguntas si así lo estiman conveniente. La participación del jardín infantil consiste en lo siguiente: Luego de informar al equipo profesional acerca del estudio y de solicitar su consentimiento a participar de la investigación, se les invitará a participar en un Taller de Apego/Mentalización a cargo de psicólogas de la UC. Luego se requiere que el personal educativo le explique a los apoderados a grandes rasgos el estudio. El equipo de investigación contactará directamente a los apoderados para invitarlos a participar de un Taller similar al realizado por el personal educativo, que tendrá una duración de 5 sesiones de 2 horas cada una y estará a cargo de psicólogas de la UC. Para realizar este taller se

requiere que el jardín Infantil facilite el espacio físico (sala para 10 personas en horario de conveniencia del jardín). Las fechas tentativas de realización del taller son entre los meses de mayo y julio de 2014.

Además se requiere que la institución educacional facilite el espacio para realizar las entrevistas iniciales con los padres (45 minutos de duración aproximadamente) y luego, que facilite el espacio para las filmaciones con sus hijos, las cuales tendrán una duración de aproximadamente 20 minutos. Estas evaluaciones se repetirán 3 veces, en abril 2014, noviembre 2014 y abril 2015. Al personal educativo se le solicitará que llenen tres cuestionarios en los tres momentos de evaluación, más una filmación de juego libre con un niño(a) de la sala de 10 minutos de duración. Todas estas mediciones se realizarán dentro del jardín infantil en una sala anexa y durante el horario de funcionamiento regular.

Toda la información generada por el jardín infantil será confidencial, para lo cual las respuestas de los participantes serán identificadas solamente con un número de folio y los nombres no serán escritos en ningún cuestionario. Además, la información será discutida en privado y no será conocida por personas ajenas a la investigación. Al finalizar el proyecto se entregará información global de los resultados del estudio, pero no información individual de los participantes de la investigación. Las bases de datos con la información del estudio serán conservadas durante un período de 5 años. Los datos obtenidos serán utilizados para fines de investigación, tanto para la generación de documentos científicos como para la docencia especializada.

Si tiene preguntas respecto a esta investigación, puede contactarse con la investigadora responsable, María Pía Santelices (fono 354-7664). Si tiene preguntas respecto de sus derechos como participante puede contactarse con el Comité de Ética de la Escuela de Psicología de la P. Universidad Católica de Chile, E-mail [comite.etica.psicologia@uc.cl](mailto:comite.etica.psicologia@uc.cl), Fono 2354-5883.

---

Declaro que he leído el presente documento, se me ha explicado en que consiste esta investigación y mi participación en el mismo, he tenido la posibilidad de aclarar mis dudas y tomo libremente la decisión de participar en el estudio. Además se me ha dado entrega de un duplicado firmado de este documento.

### **Acepto participar en el presente estudio**

\_\_\_\_\_  
(Nombre)

\_\_\_\_\_  
(Firma)

\_\_\_\_\_  
Nombre del investigador

\_\_\_\_\_  
(Firma)

Fecha: \_\_\_\_\_

Nombre Jardín infantil: \_\_\_\_\_



PONTIFICIA  
UNIVERSIDAD  
CATÓLICA  
DE CHILE

**ESCUELA DE PSICOLOGÍA  
PROYECTO FONDECYT 1130786**

**CARTA DE CONSENTIMIENTO  
(Apoderados)**

Usted y su hijo(a) han sido invitados(as) a participar en el estudio “Diseño, implementación y evaluación de una intervención en Apego/Mentalización para madres y padres de niños de 3 años que asisten a jardín infantil” a cargo de las investigadoras, María Pía Santelices y Chamarrita Farkas, docentes de la Escuela de Psicología de la Pontificia Universidad Católica de Chile. El objeto de esta carta es ayudarlo(a) a tomar la decisión de participar en la presente investigación, la cual tiene la aprobación de la Escuela de Psicología de la UC y de la Junta Nacional de Jardines Infantiles, JUNJI.

El propósito general del estudio es investigar el impacto de un taller de apego/mentalización orientado a padres y apoderados, en el apego y desarrollo de los niños(as). También se pretende evaluar el efecto de la intervención en variables de los padres. Para esto, el presente proyecto ha diseñado en conjunto con educadoras, una intervención que será implementada por psicólogas de la UC, en el jardín infantil. Los resultados y conclusiones de este estudio permitirán apoyar los programas de los y jardines infantiles en términos del desarrollo más integral de los niños(as).

Al participar en esta investigación se le pedirá que responda 7 breves cuestionarios sobre aspectos personales, familiares y acerca del desarrollo de su hijo(a), más una filmación de juego libre con su hijo(a) de 10 minutos de duración. Toda la entrevista tendrá una duración aproximada de 45 minutos. Estos cuestionarios se repetirán 3 veces durante el estudio en abril 2014, noviembre 2014 y abril 2015. Además en estas mismas fechas, se le solicitará su autorización para evaluar a su hijo(a) en el jardín infantil con dos instrumentos para medir apego y teoría de la mente y para realizar una filmación de una situación de juego con muñecos de 20 minutos de duración. Cada vez su hijo(a) será invitado(a) a participar de la actividad, y si se niega no se le insistirá de ninguna manera, estando atentos a cualquier manifestación de desacuerdo o malestar.

Asimismo, se le solicitará su participación como apoderado en un Taller de Apego/Mentalización a cargo de psicólogas de la UC. El taller se llevará a cabo en el jardín infantil y tendrá una duración de 5 sesiones de 2 horas cada una, que se realizarán entre los meses de mayo y julio 2014.

El beneficio que usted obtendrá participando en este estudio, es que podrá participar en un taller de apego/mentalización orientado a mejorar la relación con su hijo(a) y a desarrollar habilidades psicoafectivas en sus hijos. Además, los resultados contribuirán al conocimiento científico para favorecer el desarrollo integral de la infancia temprana en nuestro país. Es importante agregar que el presente estudio no contempla ningún tipo de riesgo para los participantes.

Su participación en el estudio es voluntaria y tiene derecho a abandonarlo sin necesidad de dar explicaciones y sin que ello signifique ningún perjuicio para usted o para la educación de su hijo(a) en el establecimiento educacional. Además tiene el derecho a no responder preguntas si así lo desea.

La participación del jardín Infantil en este estudio ha sido aprobada por la dirección del mismo.

Toda la información generada por usted o de la evaluación de su hijo(a) será confidencial, para lo cual sus respuestas serán identificadas solamente con un número de folio y ni su nombre ni el de su hijo o hija será escrito en ningún cuestionario o documento. Además, la información será discutida en privado y no será conocida por personas ajenas a la investigación. Las bases de datos del estudio serán conservadas durante un período de 5 años. Los datos obtenidos serán utilizados para fines de investigación, tanto para la generación de documentos científicos como para la docencia especializada. No se entregará información individualizada de los participantes.

Si tiene preguntas respecto a esta investigación, puede contactarse con la investigadora responsable, María Pía Santelices (fono 354-7664). Si tiene preguntas respecto de sus derechos como participante puede contactarse con el Comité de Ética de la Escuela de Psicología de la P. Universidad Católica de Chile, E-mail [comite.etica.psicologia@uc.cl](mailto:comite.etica.psicologia@uc.cl), Fono 2354-5883.

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**Acepto participar en el presente estudio**

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**(Nombre)**

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**(Firma)**

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**(Nombre de su hijo o hija)**

**Fecha:** \_\_\_\_\_

**Nombre del investigador**

**(Firma)**



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**ESCUELA DE PSICOLOGÍA  
PROYECTO FONDECYT 1130786**

**CARTA DE AUTORIZACIÓN  
(Directivos/as de los establecimientos educacionales)**

Usted ha sido invitado(a) a participar en el estudio “Diseño, implementación y evaluación de una intervención en Apego/Mentalización para madres y padres de niños de 3 años que asisten a jardín infantil” a cargo de las investigadoras, María Pía Santelices y Chamarrita Farkas, docentes de la Escuela de Psicología de la Pontificia Universidad Católica de Chile. El objeto de esta carta es ayudarlo(a) a tomar la decisión de participar en la presente investigación, la cual tiene la aprobación de la Escuela de Psicología de la UC y de la Junta Nacional de Jardines Infantiles, JUNJI.

El propósito general del estudio es investigar los efectos de una intervención en apego/mentalización orientado a padres y apoderados, en el apego, teoría de la mente y desarrollo de los niños(as). También se pretende evaluar el efecto de la intervención en variables de los padres. Para esto, el presente proyecto implementará una intervención en un grupo de jardines infantiles y comparará los resultados con un grupo de jardines en los cuales no se llevará a cabo la intervención, llamado grupo control. Es a este último grupo al cual invitamos a este jardín, lo que implica que el equipo de investigación visitará el jardín en tres ocasiones, que se detallan a continuación, para realizar las evaluaciones. Los resultados y conclusiones de este estudio permitirán apoyar los programas de los jardines infantiles en términos del desarrollo más integral de los niños(as).

Aún cuando no obtendrá beneficios directos participando en este estudio, los resultados obtenidos en esta investigación podrían aportar al jardín infantil con el material de la intervención que quedará a disposición del jardín al final del estudio. Además, los resultados contribuirán al desarrollo del conocimiento científico para favorecer el desarrollo integral de la infancia temprana en nuestro país. Es importante agregar que el presente estudio no contempla ningún tipo de riesgo para los participantes.

A través de la presente se le solicita la autorización para la participación del jardín infantil como parte del grupo control del estudio, del cual usted es director(a). Esta participación es voluntaria. Tiene el derecho a decidir abandonar el estudio sin necesidad de dar ningún tipo de explicación y sin que ello signifique ningún perjuicio para usted en el establecimiento educacional. Además tiene el derecho a no responder preguntas si así lo estima conveniente. Su autorización al estudio como directivo no obliga a la participación en el mismo de apoderados y personal educativo, quienes serán consultados para participar de manera voluntaria e independiente. La participación del jardín infantil consiste en lo siguiente: Luego de informar al equipo profesional acerca del estudio y de solicitar su consentimiento a participar de la investigación, se requiere que la institución educacional facilite el espacio para realizar las entrevistas iniciales con los padres (45 minutos de duración aproximadamente) y luego, que facilite el espacio para las filmaciones con sus hijos, las cuales tendrán una duración de aproximadamente 20 minutos. Estas evaluaciones se repetirán 3 veces, en abril 2014, noviembre 2014 y abril 2015. Al personal educativo se le solicitará que llenen 3 cuestionarios en los tres momentos de evaluación, más una filmación de juego libre con un niño(a) de la sala de 10 minutos de duración. Todas estas mediciones se realizarán dentro del

jardín infantil en una sala anexa y durante el horario de funcionamiento regular.

Toda la información generada por el jardín infantil será confidencial, para lo cual las respuestas de los participantes serán identificadas solamente con un número de folio y los nombres no serán escritos en ningún cuestionario. Además, la información será discutida en privado y no será conocida por personas ajenas a la investigación. Al finalizar el proyecto se entregará información global de los resultados del estudio, pero no información individual de los participantes de la investigación. Las bases de datos con la información del estudio serán conservadas durante un período de 5 años. Los datos obtenidos serán utilizados para fines de investigación, tanto para la generación de documentos científicos como para la docencia especializada.

Si tiene preguntas respecto a esta investigación, puede contactarse con la investigadora responsable, María Pía Santelices (fono 354-7664). Si tiene preguntas respecto de sus derechos como participante puede contactarse con el Comité de Ética de la Escuela de Psicología de la P. Universidad Católica de Chile, E-mail [comite.etica.psicologia@uc.cl](mailto:comite.etica.psicologia@uc.cl), Fono 2354-5883.

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**Acepto participar en el presente estudio**

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(Nombre)

---

(Firma)

**Fecha:** \_\_\_\_\_

**Nombre Jardín infantil:** \_\_\_\_\_

**Nombre del investigador**

---

(Firma)





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**ESCUELA DE PSICOLOGÍA  
PROYECTO FONDECYT 1130786**

**CARTA DE CONSENTIMIENTO  
(Apoderados)**

Usted y su hijo(a) han sido invitados(as) a participar en el estudio “Diseño, implementación y evaluación de una intervención en Apego/Mentalización para madres y padres de niños de 3 años que asisten a jardín infantil” a cargo de las investigadoras, María Pía Santelices y Chamarrita Farkas, docentes de la Escuela de Psicología de la Pontificia Universidad Católica de Chile. El objeto de esta carta es ayudarlo(a) a tomar la decisión de participar en la presente investigación, la cual tiene la aprobación de la Escuela de Psicología de la UC y de la Junta Nacional de Jardines Infantiles, JUNJI.

El propósito general del estudio es investigar el impacto de un taller de apego/mentalización orientado a padres y apoderados, en el apego y desarrollo de los niños(as). También se pretende evaluar el efecto de la intervención en variables de los padres. Para esto, el presente proyecto implementará una intervención en un grupo de jardines infantiles y comparará los resultados con un grupo de jardines en los cuales no se llevará a cabo la intervención, llamado grupo control. Es a este último grupo al cual la invitamos a participar, lo que implica que el equipo de investigación le solicitará su colaboración en tres ocasiones, que se detallan a continuación, para realizar las evaluaciones. Los resultados y conclusiones de este estudio permitirán apoyar los programas de jardines infantiles en términos del desarrollo más integral de los niños(as).

Al participar en esta investigación se le pedirá que responda 7 breves cuestionarios sobre aspectos personales, familiares y acerca del desarrollo de su hijo(a), más una filmación de juego libre con su hijo(a) de 10 minutos de duración. Toda la entrevista tendrá una duración aproximada de 45 minutos. Estos cuestionarios se repetirán 3 veces durante el estudio en abril 2014, noviembre 2014 y abril 2015. Además en estas mismas fechas, se le solicitará su autorización para evaluar a su hijo(a) en el jardín infantil con dos instrumentos para medir apego y teoría de la mente y para realizar una filmación de una situación de juego con muñecos de 20 minutos de duración. Cada vez su hijo(a) será invitado(a) a participar de la actividad, y si se niega no se le insistirá de ninguna manera, estando atentos a cualquier manifestación de desacuerdo o malestar.

Aún cuando no obtendrá beneficios directos participando en este estudio, los resultados contribuirán al desarrollo del conocimiento científico para favorecer el desarrollo integral de la infancia temprana en nuestro país. Es importante agregar que el presente estudio no contempla ningún tipo de riesgo para los participantes.

Su participación en el estudio es voluntaria y tiene derecho a abandonarlo sin necesidad de dar explicaciones y sin que ello signifique ningún perjuicio para usted o para la educación de su hijo(a) en el establecimiento educacional. Además tiene el derecho a no responder preguntas si así lo desea. La participación del jardín Infantil en este estudio ha sido aprobada por la dirección del mismo.

Toda la información generada por usted o de la evaluación de su hijo(a) será confidencial,

para lo cual sus respuestas serán identificadas solamente con un número de folio y ni su nombre ni el de su hijo o hija será escrito en ningún cuestionario o documento. Además, la información será discutida en privado y no será conocida por personas ajenas a la investigación. Las bases de datos del estudio serán conservadas durante un período de 5 años. Los datos obtenidos serán utilizados para fines de investigación, tanto para la generación de documentos científicos como para la docencia especializada. No se entregará información individualizada de los participantes.

Si tiene preguntas respecto a esta investigación, puede contactarse con la investigadora responsable, María Pía Santelices (fono 2354-7664). Si tiene preguntas respecto de sus derechos como participante puede contactarse con el Comité de Ética de la Escuela de Psicología de la P. Universidad Católica de Chile, E-mail [comite.etica.psicologia@uc.cl](mailto:comite.etica.psicologia@uc.cl), Fono 2354-5883.

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**Acepto participar en el presente estudio**

---

**(Nombre)**

---

**(Firma)**

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**(Nombre de su hijo o hija)**

**Fecha:**

**Nombre del investigador**

**(Firma)**



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**ESCUELA DE PSICOLOGÍA  
PROYECTO FONDECYT 1130786**

**CARTA DE CONSENTIMIENTO  
(Padres Grupo Piloto)**

Usted y su hijo(a) han sido invitados(as) a participar en el estudio “Diseño, implementación y evaluación de una intervención en Apego/Mentalización para madres y padres de niños de 3 años que asisten a jardín infantil” a cargo de las investigadoras, María Pía Santelices y Chamarrita Farkas, docentes de la Escuela de Psicología de la Pontificia Universidad Católica de Chile. El objeto de esta carta es ayudarlo(a) a tomar la decisión de participar en la presente investigación, la cual tiene la aprobación de la Escuela de Psicología de la UC y de la Junta Nacional de Jardines Infantiles, JUNJI.

El propósito general del estudio es investigar el impacto de un taller de apego/mentalización orientado a padres y apoderados, en el apego y desarrollo de los niños(as). También se pretende evaluar el efecto de la intervención en variables de los padres. Para esto, el presente proyecto ha diseñado en conjunto con educadoras, una intervención que será implementada por psicólogas de la UC en los jardines infantiles. Los resultados y conclusiones de este estudio permitirán apoyar los programas de los y jardines infantiles en términos del desarrollo más integral de los niños(as).

Específicamente se le solicita participar en el Taller Piloto de Apego/Mentalización, que consiste en una versión intensiva del taller a cargo de psicólogas de la UC. El taller se llevará a cabo en la Escuela de Psicología UC y tendrá una duración de 2 sesiones de 2 horas cada una, que se realizarán en el mes de abril de 2014. De manera adicional, se le pedirá que responda 7 breves cuestionarios sobre aspectos personales y familiares, que se contestan en aproximadamente 30 minutos. Estos cuestionarios se repetirán 2 veces, al inicio y al término del Taller. Además se le pedirá una filmación de juego libre con su hijo(a) de 5 minutos de duración. Esta filmación usted la puede traer de su casa en un formato digital (pendrive, dvd)

El beneficio que usted obtendrá participando en este estudio, es que usted podrá participar en un taller de apego/mentalización orientado a mejorar la relación con su hijo(a) y a desarrollar habilidades psicoafectivas en sus hijos. Además, los resultados contribuirán al desarrollo del conocimiento científico para favorecer el desarrollo integral de la infancia temprana en nuestro país. Es importante agregar que el presente estudio no contempla ningún tipo de riesgo para los participantes.

Su participación en el estudio es voluntaria y tiene derecho a abandonarlo sin necesidad de dar explicaciones y sin que ello signifique ningún perjuicio para usted o para la educación de su hijo(a) en el establecimiento educacional. Además tiene el derecho a no responder preguntas si así lo desea.

Toda la información generada por usted o de la evaluación de su hijo(a) será confidencial, para lo cual sus respuestas serán identificadas solamente con un número de folio y ni su nombre ni el de su hijo o hija será escrito en ningún cuestionario o documento. Además, la información será discutida en privado y no será conocida por personas ajenas a la investigación. Las bases de datos del estudio serán conservadas durante un período de 5 años. Los datos obtenidos serán utilizados

para fines de investigación, tanto para la generación de documentos científicos como para la docencia especializada.

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**Acepto participar en el presente estudio**

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**(Nombre)**

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**(Firma)**

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**(Nombre de su hijo o hija)**

**Fecha:** \_\_\_\_\_

**Nombre del investigador**

**(Firma)**

## 12.5 Coding and register sheets

PROYECTO FONDECYT 1130786

Nº FOLIO

### CUESTIONARIO SOCIODEMOGRÁFICO

Nombre niño		Fecha aplicación	
Nombre persona que responde		Parentesco con el niño	

1. Edad ingreso del niño(a) asistió a sala cuna :

\_\_\_\_\_ :  
2. Edad de ingreso al jardín infantil :

\_\_\_\_\_ :  
3. Edad de ingreso a este jardín :

\_\_\_\_\_ :  
4. Horas semanales que pasa el niño(a) en el jardín :

#### I. ANTECEDENTES PERSONALES:

Fecha de Nacimiento: \_\_\_\_\_

Nacionalidad: \_\_\_\_\_

Estado Civil:

\_\_\_\_ Casado/a

\_\_\_\_ Conviviente

\_\_\_\_ Soltero/a

\_\_\_\_ Separado/a

\_\_\_\_ Viudo/a

#### II. ANTECEDENTES DE LA FAMILIA:

1. Número personas que viven en la casa (incluyendo al niño) \_\_\_\_\_

Anote la información correspondiente para todas las personas que viven en la casa con el niño(a):

Parentesco con el niño(a)	Edad	Parentesco con el niño(a)	Edad
1.		7.	
2.		8.	
3.		9.	
4.		10.	
5.		11.	
6.		12.	

3. Si la madre del niño(a) no vive en la casa, ¿Cuál es el tipo de contacto que tiene con el niño(a)?

Diario  algunos días a la semana  algunos días al mes  
 Algunos días al año  no hay contacto  NO APLICA

4. Si el padre del niño(a) no vive en la casa, ¿Cuál es el tipo de contacto que tiene con el niño(a)?

Diario  algunos días a la semana  algunos días al mes  
 Algunos días al año  no hay contacto  NO APLICA

5. ¿Quién está a cargo del niño(a) la mayor parte del tiempo (2 a 3 horas diarias)?

--

6. ¿Existe **otra** persona o personas a cargo del cuidado diario del niño(a) (alimentación, cuidado durante enfermedad, etc.), ¿cuáles?

--

7. ¿Hay otras personas relevantes para el niño(a) que no vivan en el hogar y que tengan contacto frecuente con él o ella? (especifique cuántas personas, y su parentesco o relación con el niño(a))

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	Padre	Madre	Adulto principal a cargo del niño(a): _____ (complete, si no es madre o padre)
Nombre			
Edad			
Nacionalidad			

Nivel educacional (marque con una X el máximo nivel educacional alcanzado por cada persona):

	Madre	Padre	Otro adulto	
0.	_____	_____	_____	No lo sabe
1.	_____	_____	_____	Educación básica incompleta (menor a 8vo básico)

2.	___	___	___	Educación básica completa (8vo básico aprobado)
3.	___	___	___	Educación media o media técnica incompleta (menor a 4to medio)
4.	___	___	___	Educación media o media técnica completa. Educación técnica incompleta.
5.	___	___	___	Educación universitaria, incompleta. Educación técnica completa.
6.	___	___	___	Educación universitaria completa.
7.	___	___	___	Educación de Post Grado (Master, Doctor o equivalente).

Situación ocupacional (Marque con una X solo una opción para cada persona):

	Madre	Padre	Otro adulto	
0.	___	___	___	Cesante, no trabaja, dueña de casa
1.	___	___	___	Estudia
2.	___	___	___	Trabaja

Nivel ocupacional (Se refiere a su trabajo u ocupación principal. Marque con una X sólo una opción para cada persona, si tiene dudas, consulte con el aplicador). **Rellene sólo si marcó la opción 3 “Trabaja”:**

	Madre	Padre	Otro adulto	
0.	___	___	___	No lo sabe
1.	___	___	___	Trabajos menores ocasionales e informales (lavado, aseo, servicio doméstico ocasional, “pololos”, cuidador de autos, chofer, junior).
2.	___	___	___	Oficio menor, obrero no calificado, jornalero, servicio doméstico con contrato, guardia, carpintero.
3.	___	___	___	Obrero calificado, capataz, micro empresario (kiosco, taxi, comercio menor, ambulante), operador de alimentos, manipulador
4.	___	___	___	Empleado administrativo medio y bajo, vendedor, secretaria, jefe de sección. Técnico especializado. Profesional independiente de carreras técnicas (contador, analista de sistemas, diseñador, músico). Profesor Primario o Secundario.
5.	___	___	___	Ejecutivo medio (gerente, sub-gerente), gerente general de empresa media o pequeña. Profesional independiente de carreras tradicionales (abogado, médico, arquitecto, ingeniero, agrónomo).

6.	_____	_____	_____	Alto ejecutivo (gerente general) de empresa grande. Directores de grandes empresas. Empresarios propietarios de empresas medianas y grandes. Profesionales independientes de gran prestigio.
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Su **principal actividad laboral** es: (Marque sólo una opción para cada persona)

	Madre	Padre	Otro adulto	
0.	_____	_____	_____	No trabaja
1.	_____	_____	_____	Fuera del hogar
2.	_____	_____	_____	Dentro del hogar

Su **jornada laboral o de estudio** es: (Marque sólo una opción para cada persona)

	Madre	Padre	Otro adulto	
0.	_____	_____	_____	No trabaja ni estudia
1.	_____	_____	_____	Part time, por horas, o menos de 15 horas semanales.
2.	_____	_____	_____	Media jornada (entre 15 y 34 horas semanales).
3.	_____	_____	_____	Completa (35 horas o más).

### III. ANTECEDENTES DEL NIÑO(A)

¿Existe algún antecedente del niño que sea relevante?

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## ***Five Minutes Speech Sample.***

### **APLICACIÓN 1 FMSS PARA FR**

Se llama a cada participante por teléfono y esta llamada es grabada para luego ser transcrita y codificada.

Con anterioridad a la aplicación, se advierte a las madres y cuidadoras que serán contactadas por una psicóloga investigadora del equipo que les hará unas breves preguntas acerca de su hijo(a).

Después de la 2° sesión y antes de la 3°, la persona que llama se presenta y confirma que las mamás/ apoderados hayan recibido la información de la llamada. Luego, comienza la aplicación de la prueba.

Este instrumento debe ser aplicado por el evaluador y debe ser grabado (sólo voz). Posteriormente será transcrito y codificado, por lo que se necesita que el audio sea de buena calidad. Asimismo, se debe **advertir a las mamás que serán grabadas** sus respuestas.

#### **Protocolo**

*"Hola [nombre de la madre/ apoderado], mi nombre es [nombre de la psicóloga], psicóloga del equipo de investigación que está realizando el taller de apoderados al que usted está asistiendo en el Jardín Infantil de [nombre del niño/a]. La vez pasada que asistió al taller le pueden haber comentado que recibiría una llamada mía para hacerle unas preguntas muy breves acerca de [nombre del niño/a]; fue así?"*

**Si respondió SI**, entonces: *"Muy bien. Le voy a pedir que, si es posible, vaya con su teléfono a un lugar tranquilo y donde pueda estar sola o donde la interrumpen lo menos posible".*

Cuando la persona indique que ya puede responder: *"Le pido que en 5 minutos responda unas preguntas muy sencillas y que lo haga con lo primero que se le venga a la mente, bueno? Las preguntas son: ¿Cómo es [nombre del niño/a]? (indagar si se queda en silencio: ¿cómo más podría describirlo/a?, ¿quisiera agregar algo más?), ¿cómo se siente acerca de [nombre del niño/a]? (indagar si se queda en silencio: ¿cómo más podría describir que se siente?, ¿quisiera agregar algo más?) y por último, cuénteme algún problema o conflicto, por muy pequeño que sea, que haya tenido con [nombre del niño/a] recientemente y cómo lo enfrentó/resolvió, ¿por qué cree que se comportaba así?"*

**Si responde NO**, entonces: *"¿Podría responder unas preguntas muy sencillas acerca de [nombre del niño/a], que no nos van a tomar más de 5 minutos?"* Y se repite la consigna anterior.

**Al terminar:** *"Muchas gracias por responder y por su tiempo. Cualquier cosa que quiera comentar acerca de las preguntas que le hice, puede hacerlo en el taller con sus monitoras; ellas están al tanto de mi llamado. Que tenga buena tarde (día, noche)"*

## APLICACIÓN 2 FMSS PARA FR

Se llama a cada participante por teléfono y esta llamada es grabada para luego ser transcrita y codificada.

En la primera aplicación se advierte a las mamás y apoderados que serán contactadas nuevamente en dos o tres semanas más y por la misma persona, quien les hará nuevamente unas preguntas.

Después de la 4° sesión, la persona que llama se presenta nuevamente y recuerda el llamado. Luego, comienza la aplicación de la prueba.

Este instrumento debe ser aplicado por el evaluador y debe ser grabado (sólo voz). Posteriormente será transcrito y codificado, por lo que se necesita que el audio sea de buena calidad. Asimismo, se debe **advertir a las mamás que serán grabadas** sus respuestas.

### **Protocolo**

Consigna inicial: *¿Podría responder unas preguntas que nos tomarán unos 5 minutos?*

**Si responde SI:** *"Muy bien. Le va a parecer algo repetitivo, pero esta llamada será parecida a la llamada que le hice hace unas semanas atrás. Le voy a pedir que, si es posible, vaya con su teléfono a un lugar tranquilo y donde pueda estar sola o donde la interrumpen lo menos posible".*

Cuando la persona indique que ya puede responder: *"Le pido que en 5 minutos responda unas preguntas muy sencillas y que lo haga con lo primero que se le venga a la mente, bueno? Las preguntas son: ¿Cómo es [nombre del niño/a]? (indagar si se queda en silencio: ¿cómo más podría describirlo/a?; con lo primero que se te venga a la mente; ¿quisiera agregar algo más?), ¿cómo se siente acerca de [nombre del niño/a]? (indagar si se queda en silencio: ¿cómo más podría describir que se siente?, ¿quisiera agregar algo más?) y por último, cuénteme algún problema o conflicto, por muy pequeño que sea, que haya tenido con [nombre del niño/a] recientemente y cómo lo enfrentó/resolvió, ¿por qué cree que se comportaba así?"*.

Al terminar: *"Muchas gracias por responder y por su tiempo. Cualquier cosa que quiera comentar acerca de las preguntas que le hice, puede hacerlo en el taller con sus monitoras. Que tenga buena tarde (día, noche)"*

**Si responde NO:** *"En qué otro horario podría llamarla nuevamente?"*, determinar en conjunto un nuevo horario de llamada y volver a repetir el protocolo desde el comienzo.

### APLICACIÓN 3 FMSS PARA FR

Este instrumento debe ser aplicado por el evaluador y debe ser grabado (sólo voz). Posteriormente será transcrito y codificado, por lo que se necesita que el audio sea de buena calidad. Asimismo, se debe **advertir a las mamás que serán grabadas** sus respuestas.

Este instrumento ya ha sido aplicado antes en dos ocasiones anteriores. Por esto, **se recuerda a las mamás** que ya han respondido estas preguntas antes y que puede que les parezca repetitivo.

Si hubiera alguna mamá que advirtiera que **no quiere ser grabada**, se puede indagar las razones para no ser grabada, recordar la confidencialidad y la necesidad de ser grabadas para no tener que escribir mientras responden.

Idealmente la mamá aceptará ser grabada, pero si se niega, se debe aplicar el instrumento de todas maneras y se ruega tomar apuntes de sus respuestas. Sólo tomar apuntes en este escenario.

#### **Protocolo de aplicación**

Evaluador: *“Ahora le haré unas preguntas que usted respondió el año pasado en dos ocasiones por teléfono, con una de las psicólogas del equipo de investigación. Puede que le parezca repetitivo.”*

Se espera que la mamá indique que sí se acuerda. Seguir con el protocolo aún si la mamá indica o no que se acuerda.

*“Le pido que en 5 minutos responda unas preguntas muy sencillas y que lo haga con lo primero que se le venga a la mente”*

El evaluador continúa: *“Las preguntas son:*

- a. *¿Cómo es [nombre del niño/a]? (indagar si se queda en silencio: ¿cómo más podrías describirlo/a?; ¿quisiera agregar algo más?),*
- b. *segunda, ¿cómo se siente acerca de [nombre del niño/a]? (indagar si se queda en silencio: ¿cómo más podrías describir que se siente?, ¿quisiera agregar algo más?)*
- c. *y por último, a) cuénteme algún problema o conflicto, por muy pequeño que sea, que haya tenido con [nombre del niño/a] recientemente y cómo lo enfrentó/resolvió, b) ¿por qué cree que se comportaba así?”.*

Al terminar: *“Muchas gracias por responder y por su tiempo.”*

## ***Reflective Functioning Scale.***

El proceso de codificación del FMSS para Función Reflexiva Parental, a partir de la entrevista para padres (Parental Development Interview), debe realizarse con la transcripción de la entrevista al adulto y se debe codificar completa. Los resultados permiten distinguir entre los 4 tipos de FR que a su vez se dividen en varios subtipos:

- 1. Darse cuenta de la naturaleza de los estados mentales propios y de otros:**
  - a. Los estados mentales son opacos, es decir, que no siempre podemos saber lo que el otro pensando, sintiendo, etc.
  - b. Los estados mentales se pueden ocultar, cuando una persona quiere mantener su experiencia en privado o desconocida.
  - c. Reconocimiento de las limitaciones del insight. Siempre hay dificultades en conocer la mente del otro que son inherentes.
  - d. Los estados mentales están ligados a expresiones juzgadas normativamente como apropiadas (llorar porque le duelen los dientes).
  - e. Darse cuenta de la naturaleza defensiva de ciertos estados mentales: darse cuenta de que un afecto puede usarse como defensa en contra de otro afecto, que se pueden modificar estados mentales para reducir afectos negativos.
- 2. Esfuerzo explícito por desentrañar los estados mentales subyacentes a un comportamiento.**
  - a. Ofrecer una causa posible a los estados mentales de otros
  - b. Prever la posibilidad de que los sentimientos asociados a una situación pueden no estar relacionados con hechos observables del mismo hecho.
  - c. Reconocer diversas perspectivas
  - d. Tomar en cuenta los propios estados mentales para interpretar los del otro.
  - e. Evaluar los estados mentales desde el punto de vista del impacto de los propios comportamientos o estados mentales propios en el del otro.
  - f. Frescura en el recuerdo y pensamiento en estados mentales.
- 3. Reconocer los aspectos evolutivos de los estados mentales.**
  - a. Tomar una perspectiva intergeneracional haciendo links entre generaciones.
  - b. Tomar una perspectiva evolutiva
  - c. Revisar pensamientos y sentimientos a la luz de la comprensión adquirida desde la infancia
  - d. Previendo cambios de los estados mentales del pasado al presente y del presente al futuro
  - e. Prever procesos transaccionales entre padres e hijo
  - f. Comprender que hay factores evolutivos que determinan la regulación emocional
  - g. Conciencia de las dinámicas familiares
- 4. Estados mentales en relación al entrevistador.**
  - a. Reconocer la separación de mentes
  - b. No asumir conocimiento en el entrevistador

### c. Sintonía emocional

La escala se organiza en un continuo de baja a alta FR. El punto medio es 5 y describe la FR media u ordinaria. Sobre 5 indica niveles variantes de capacidad para referirse a estados mentales, es la relación que se hace de estados mentales al comportamiento o estados mentales a estados mentales que califican la respuesta como reflexiva. Los puntajes se asignan por respuesta y en un marco general de la entrevista.

- 1 función reflexiva negativa
- 0 función reflexiva desautorizada o desorganizada
- 1 ausencia de función reflexiva pero no rechazo
- 2 referencias vagas o implícitas a estados mentales
- 3 función reflexiva cuestionable o baja
- 4 función reflexiva rudimentaria o implícita
- 5-6 función reflexiva definida u ordinaria
- 7-8 función reflexiva marcada
- 9 función reflexiva completa o excepcional

Una persona debe tener la capacidad para describir estados mentales para ser considerada reflexiva. Estados mentales son sentimientos, pensamientos, creencias, deseos, intenciones, todas aquellas experiencias mentales internas, a saber “yo creo, yo quiero, yo sé, yo siento”. Es importante distinguir de experiencias corporales (“me siento hambriento”).

#### **Función reflexiva negativa o limitada**

1. Rechazo de la función reflexiva
  - a. Hostilidad con el entrevistador
  - b. Respuestas incongruentes que restan credibilidad
  - c. Respuestas evasivas para evitar la importancia del tema de una pregunta
2. Función reflexiva no integrada, bizarra o inapropiada
3. Desautorización de la función reflexiva
4. Función reflexiva distorsionada o egoísta
5. Ingenua o simplista
6. Función reflexiva hiperactivada
7. Excesivo foco en personalidad y comportamiento

## ***Escala de mentalización.***

### **EVALUACIÓN MENTALIZACIÓN**

Este instrumento cuenta con dos formas, según la edad del niño con quien el adulto interactuará. Para esta evaluación se presenta la Forma B (orientada a niños de 24 a 48 meses).

#### **FORMA B 24 A 48 MESES**

Se propone observar la mentalización del adulto en interacción con niños y niñas por medio de una tarea en la cual se le pide al adulto que le cuente una historia al niño(a) utilizando **láminas**. Esta situación espera evaluar en qué frecuencia y calidad el adulto es *capaz de conversar de incorporar a la historia referencia y comprensión de diferentes estados internos, ya sea de los personajes, del niño(a) y de sí mismo*.

##### ***a. Contexto de evaluación:***

La actividad de historia con láminas, será filmada en una sala de la sala cuna, jardín infantil u hogar.

##### ***Materiales:***

*Materiales para Diada Adulto – Niño(a), versión apoderado.*

- 2 cuentos versión niño(a) según género del niño.
- Tarjetas con preguntas para guiar la conversación en torno al cuento.

*Materiales para Diada Adulto – Niño(a), versión personal educativo.*

- 2 cuentos versión niño(a) según género del niño.
- Tarjetas con preguntas para guiar la conversación en torno al cuento.

*Materiales para él (la) aplicador(a).*

Cámara de filmación.

##### **Tips:**

Los materiales serán entregados en set, versión apoderado y versión equipo educativo. Cada set incluye las láminas, tarjetas de viñeta e ideas guía separados. El aplicador(a) debe tener a la vista sólo el material a utilizar para evitar distracción del niño o niña.

##### **b. Consigna e instrucciones para la evaluación:**

Contarle a la diada que ahora realizarán una actividad donde se van a contar historias, e invitarla a sentarse en la mesa de la manera que les resulte más cómoda a ambos (frente a frente o uno al lado del otro), teniendo en cuenta que se tendrá que colocar la cámara para filmarlos, por lo que una vez que tomen su lugar se les pide mantenerlo hasta el término de la actividad.

Indicarle al adulto que primero se les hará entrega de una historia para que la lea para sí mismo, con el objetivo de darle un punto de inicio para la historia que le contará al niño(a). Por tanto al niño(a) debe contarle un cuento (y no leérselo). Pídale además

que cuando termine con el primer cuento le indique al aplicador(a), quien entregará la segunda historia para seguir filmando hasta la finalización de la actividad.

#### **TIPS PARA FILMAR Y GRABAR:**

Se debe velar para que la cámara grabe a ambos participantes, del mejor ángulo posible y de perfil.

#### **Consigna:**

*La(lo) invito a contarle 2 historias a \_\_\_\_\_ (nombre del niño o niña). Cada historia se acompaña con un set de láminas. Lo especial de esta historia es que está inconclusa y lo invitamos a completarla guiándose con las siguientes ideas u otras que a usted se le puedan ocurrir. Pueden demorarse el tiempo que estime necesario.*

- *Entregar Tarjetas con ideas guía:*

¿Qué les pasa a los personajes al principio y al final de la historia?

¿Qué puede suceder?

En caso de no entender la consigna, transmitir que la idea es que le cuente la historia como lo haría en casa, por ejemplo, durante el juego o la hora antes de acostarse (o durante las actividades de la sala cuna, por ejemplo, juego). Sólo que se le entrega las láminas para ayudar a la motivación y atención del niño(a). Pueden partir preguntándole a la diada en qué momento del día usualmente leen cuentos o juegan y tomar ese contexto como referencia.

- *Entregar tarjeta con viñeta:*

- Uno le recomienda al adulto que lea la viñeta, antes de comenzar su historia. Recordarle que es una idea inicial de la historia y que puede desarrollarla como guste.
- Las viñetas tienen una versión masculina y otra femenina, que tienen como objetivo buscar la identificación del personaje con el niño. Aplique entonces las viñetas en las cuales el género del personaje y del niño coincide.

- *Viñetas historias:*

#### **Historias para la interacción niño(a) con APODERADO:**

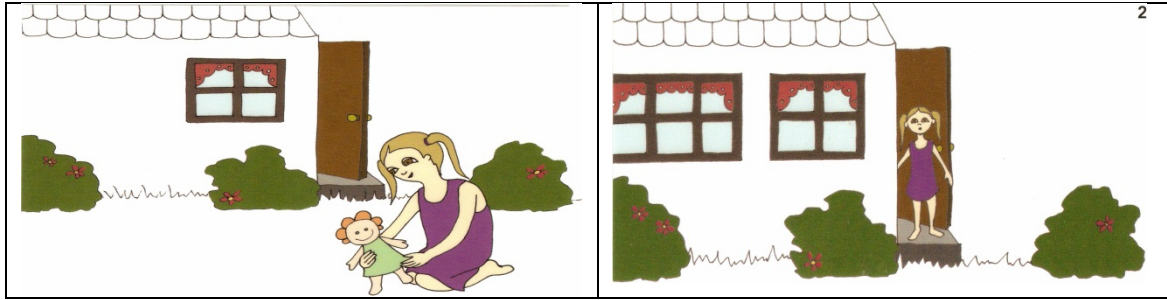
##### **Historia 1: Las llaves**

*Tomás/Antonia estaba jugando con las llaves de la casa y se acercó a la puerta. Intentó colocar las llaves, una y otra vez ¡pero no podía!*

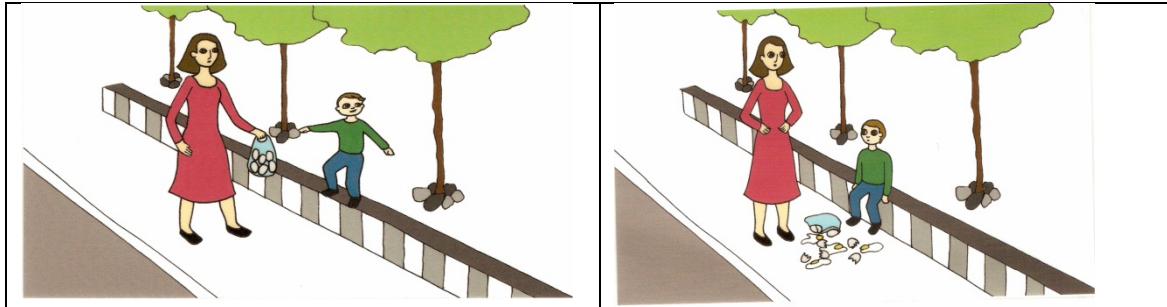
##### **Historia 2: La hora del sueño**

*Andrea/Juan está con su mamá. Tenía mucho sueño y empezaron a buscar su chupete/oso peluche favorito para la hora de dormir... pero no lo encontraban...*

Láminas Historia 1:



Láminas Historia 2:



### Codificación del instrumento

Habiendo seguido los pasos formales para obtener el material para codificar (aplicación, identificación, transcripción completa del cuento y separado los turnos de palabra, contado el número de palabras), se debe ir codificando sólo el texto del adulto de acuerdo a las categorías preestablecidas (por ejemplo “estado físico”), seleccionando el texto y agregando comentarios del codificador.

Una vez finalizada esta etapa con el texto completo, se agrega en otra columna el número total de menciones de las categorías: lenguaje causal, lenguaje factual, vínculo con el niño, estado físico, deseos, emociones, cogniciones y atributos. Aquí se encuentran códigos de estados no mentales y mentales, pues los primeros se consideran como un aporte a un discurso más elaborado por parte del adulto. Los resultados de transcriben en una tabla y en base a estos resultados es que se obtiene el puntaje para calificar la categoría de mentalización en la que es calificado el adulto.



## TRANSCRIPCIÓN MENTALIZACIÓN: HOJA DE RESPUESTA

Folio		Nombre codificador	
Edad niño		Fecha codificación	
Adulto que contesta			

	Historia 1		Historia 2		Cat. Presente Historia 1-2 (A)
	Ausencia/presencia (0 – 1)	Número menciones	Ausencia/presencia (0 – 1)	Número menciones	
Número de palabras					
N lenguaje causal					
N lenguaje factual					
N vínculos					
N estados físicos					
N deseos					
N cognición					
N emoción					
N atributos					
Total categorías (B)					

### Tabla resumen:

Cantidad de categorías diferentes, presentes en el cuento 1 o el 2 (Columna A).	PROMEDIO de categorías mencionadas entre los cuentos 1 y 2 (puntaje 1-8) (Fila B)
Suma total categorías	Promedio total categorías

Indique con una X si en el cuento 1 **O** en el cuento 2 se encuentran presentes las siguientes categorías:

Niños de 0 a 23 meses:	Niños de 24 a 48 meses:
Lenguaje causal	Lenguaje causal
Deseos	Cognición
	Emoción

<b>CATEGORIA DE MENTALIZACIÓN</b>	
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**Piccolo.**

(Traducción realizada por equipo FONDECYT 1141118, investigadora principal Chamarrita Farkas. Solo para fines de investigación y con conocimiento de la autora. Julio 2015)

**PICCOLO Interacción entre padres e hijos  
MANUAL**

Dominio	Evidencia de los Resultados
Afecto	La calidez afectiva, incluyendo la afectividad y afecto positivo, está asociada a una menor cantidad de conductas antisociales, mejor adaptación, mayor obediencia, mejores habilidades cognitivas y mejor disposición escolar.
Responsividad	Responder de manera sensible a las señales de los niños, tales como sus necesidades, intereses y su esfuerzo por comunicarse están relacionados con un apego más seguro, con un mejor desarrollo social y adaptación, mejor desarrollo del lenguaje, menos problemas conductuales, mejor regulación emocional, y mayor empatía.
Aliento	Estimular los intereses del niño y sus capacidad para decidir, no siendo muy restrictivo o intrusivo está relacionado con mayor independencia y seguridad, menor negatividad, mayor motivación a explorar nuevos desafíos, mejor desarrollo cognitivo y social, y mejor desarrollo del lenguaje. <b>Se refiere al aliento de la autonomía.</b>
Enseñanza	Conversar con los niños, responder a lo que ellos comunican y jugar en conjunto está relacionado con mejor desarrollo cognitivo y social, mejor desarrollo del lenguaje y mejores habilidades para la lectura emergente.

**Puntaje**

- 0 "Ausente". No se observa la conducta.
- 1 "Raramente". La conducta se observa raramente, brevemente, o es una conducta que está emergiendo. **Conducta inconsistente.**
- 2 "Claramente". Conducta frecuente, fuerte, definitiva. **Conducta consistente.**

El puntaje se otorga más que a la frecuencia de la conducta, a su **consistencia** y **claridad** durante la observación. Las **oportunidades perdidas** indican

Generalmente para que el adulto obtenga un puntaje 2 la conducta debe aparecer varias veces durante el video (ej. Sonreírle al niño, decirle un sobrenombre) y eso la hace consistente. Pero si la conducta es compleja, ej. Juego en secuencia de pasos, ya con que aparezca una en 5 minutos corresponde a un puntaje 2. No castigue la presencia de conductas inadecuadas, a menos que el ítem lo indique; el foco está puesto en las conductas positivas. Hay ítems donde se observan oportunidades perdidas, lo cual indica inconsistencia, por lo cual se da 1 punto en vez de 2.

\*\*\*En casos de duda acerca de adecuación de la conducta del niño/a, considerar la influencia cultural y ver la comodidad-incomodidad en la respuesta del niño/a. Evitar castigar o favorecer la conducta de la madre sin considerar el contexto.

## AFECTO

Ítem	Pauta	Observaciones adicionales
1 Habla con un tono de voz cálido	La voz del adulto tiene un tono positivo y demuestra entusiasmo o ternura. Si el adulto habla poco pero con cariño, debe dársele una puntuación alta.	Un tono emocional plano o ausente, sarcástico o voces demandantes no se consideran como cálidos. Evalúe con puntaje 0 a menos que observe calidez en algún momento. La calidez podría sonar como <i>tono maternal (motherese)</i> (por ejemplo: entonaciones exageradas, entonaciones agudas), pero no siempre. El disfrute y el interés también pueden sonar de forma cálida. La voz del adulto no puede ser dura y cálida al mismo tiempo. Algunas veces, el adulto puede ser cálido al inicio de una interacción, pero luego esta calidez disminuye en los últimos momentos de la interacción. Esto debe ser considerado en la evaluación. Para obtener un puntaje de 2 puntos, el tono de voz del adulto debería ser cálido durante la mayor parte de la interacción.

### Observaciones del equipo:

- Si el adulto es cálido pero al menos una vez es agresivo o descalificador con el niño/a, puntúe 1 (ya que ello indica inconsistencia).
- Puede ser que durante la interacción el adulto le ponga límites al niño/a, pero si ello ocurre de manera cálida, no le baja el puntaje en este ítem.
- Este ítem evalúa el tono de la voz del adulto, no su conducta ni su tono emocional (plano, hiperactivo) ni cuanto le habla al niño.

Ítem	Pauta	Observaciones adicionales
2 Sonríe al niño/a	El adulto sonríe directamente hacia el niño, sin embargo no es necesario que se estén mirando mutuamente cuando se efectúa la sonrisa. Incluye sonrisas leves.	Para un puntaje de 2 puntos, el adulto debe sonreírle al niño al menos 1 vez cada un minuto y debe estar mirando al niño o hacia el niño de forma clara. La sonrisa debe estar orientada hacia lo que hace el niño. Ignore las sonrisas que se realizan hacia la cámara, hacia otros niños o adultos, o si el adulto ríe por algo que consideraron gracioso en un libro o juguete. También ignore sonrisas que podrían ser consideradas risas de nervios o relacionadas consigo mismo. NO ES NECESARIO que el niño tenga que estar mirando al adulto.

### Observaciones del equipo:

- El requisito “al menos 1 vez cada un minuto” puede reemplazarse por “más de la mitad de las veces”.
- Si el adulto está de espaldas y no se le ve la cara, puntúe “0” y agregue “-666” en el mismo recuadro.
- **No es necesario que el niño/a esté mirando al adulto cuando este le sonríe, para puntuar este ítem.**

Ítem	Pauta	Observaciones adicionales
3 Elogia la conducta del niño/a	El adulto dice algo positivo acerca del niño, o acerca de lo que el niño está haciendo. “Gracias” puede ser codificado como un refuerzo.	Los elogios siempre deben ser efectuados en un tono positivo y en respuesta a la conducta del niño. Se considera que el elogio se debe realizar <i>luego</i> de que el niño efectúe la conducta, y no <i>durante</i> la conducta. El refuerzo o elogio se debería hacer <b>en respuesta a los logros del niño o cuando obedece</b> . Incluye verbalizaciones tales como “¡Sí!”, “¡Muy bien!”, “Bien hecho”, <b>siempre y cuando éstas sean una respuesta a lo que al niño ha hecho previamente</b> . Considere contexto cultural, y sus jergas (por ejemplo: “súper”, “qué bakán”). Algunas veces, los elogios o refuerzos también pueden ser codificados como “expresiones positivas” o “muestra apoyo emocional” pero no siempre, por lo tanto, lea con detención esta guía. <b>Considere oportunidades perdidas:</b> Por ejemplo, el adulto constantemente solicita que el niño o niña ejecute una acción, pero nunca o casi nunca lo refuerza cuando hizo lo que se esperaba.

#### Observaciones del equipo:

- Incluye refuerzo positivo (ej. “muy bien!”, “eso!” cuando el niño logra armar una torre)
- **NO** se refiere a una característica del niño (ej. “eres bonito”)
- Pueden ser comentarios sobre la conducta del niño o sobre características del niño, pero en relación a cuando realiza una tarea, u obedece, por ejemplo, el niño arma la torre de cubos y el adulto le dice “que bien lo hiciste!” o “que inteligente eres!”.
- Básicamente se refiere a conductas verbales del adulto, pero también pueden considerarse conductas no verbales con un claro valor social, como por ejemplo levantar el pulgar o aplaudir.
- La conducta es en función del logro del niño, pero puede dividirse en logros parciales, por ejemplo, cada vez que el niño logra poner uno de los cubos en la torre, el adulto lo elogia.
- El “gracias” puede considerarse un refuerzo según el contexto en el cual se da. Por ejemplo, están ordenando y el niño ayuda a pasarle juguetes al adulto (aquí el “gracias” refuerza la conducta del niño; tiene que ser con intención y mirando al niño, diferenciar de un simple agradecimiento).
- **El adulto debe elogiar al niño de manera consistente; es decir deben darse oportunidades donde ello pueda darse, considere oportunidades perdidas como señal de inconsistencia.**

Ítem	Pauta	Observaciones adicionales
4 Está físicamente cerca del niño/a	El adulto se encuentra a una distancia equivalente a un brazo,	El adulto debería estar lo suficientemente cerca del niño como para calmarlo fácilmente, mostrar afecto, para brindar ayuda o consolarlo. El adulto no debería mantener una distancia física equivalente a más de un brazo de distancia. El adulto tampoco debería esquivar o evitar la proximidad o contacto físico. Observe la postura

	<p>encontrándose cómodo para poder calmarlo o ayudarlo. Considere el contexto: Espere mayor cercanía cuando ambos estén leyendo un libro que cuando estén jugando a la casita.</p>	<p>corporal del adulto: Si está inclinado hacia el niño, si está mostrando afecto de forma corporal o si se está acomodando para mantenerse cerca.</p>
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**Observaciones del equipo:**

- Para poner puntaje 2, no puede haber ninguna muestra de evitación o rechazo de la cercanía.
- Si el niño desea sentarse sobre el adulto, pero el adulto lo sienta a su lado, esto no se considera como una evitación de la cercanía, sino como una forma de mantener una distancia adecuada para sostener un juego. Es decir, se considera que el adulto mantiene una proximidad física con el niño/a
- Considere la actividad que están realizando, al momento de evaluar la distancia. Por ejemplo cuando los juguetes se encuentran entre ambos, quizá el adulto está a más de un brazo de distancia, pero si se acercara más invadiría el “campo” de los juguetes.
- **Pregunta:** ¿Si el adulto se acercara más, sería mejor, o ya invadiría el espacio de los juguetes o del niño?

Ítem	Pauta	Observaciones adicionales
<p>5 Utiliza expresiones positivas con el niño/a</p>	<p>El adulto dice cosas positivas o usa palabras tales como “cariño” u otros sobrenombres afectuosos (<i>Nota:</i> El énfasis debe estar puesto en las expresiones verbales)</p>	<p>Considere palabras tales como “hijito/a”, “campeón”, o “mijito/a”. Considere el contexto cultural y el lenguaje que se utiliza (Por ejemplo, considere el uso de diminutivos en el idioma español).  Otras expresiones positivas podrían ser “Te amo/quiero”, “Que eres divertido”, “Eres mi regalón”, “¿Quién es mi niño/a pequeño/a?”. También se incluyen cumplidos que no son refuerzos frente a ciertas conductas, tales como “Eres tan linda como tu mamá”.  Se incluyen diminutivos, tales como “Dani” para “Daniela”, pero estos no se consideran con tanto puntaje como los sobrenombres afectuosos. Aquellos términos que son más positivos o afectuosos conllevan un mayor puntaje en este ítem.</p>

**Observaciones del equipo:**

- Acá lo importante es el énfasis en los sobrenombres o palabras afectuosas al niño.
- No guarda relación a la **conducta** o logro del niño.
- Se otorga puntaje 1 si sólo se usa diminutivos.
- El comentario tiene que aludir a algo cariñoso o un atributo positivo del niño. Por ejemplo, “la muñeca es chiquitita como tú”, no corresponde (porque “chiquitita” no necesariamente es un atributo positivo o cariñoso, versus que hubiera dicho, “ay, mi chiquititita”).
- Considerar el tono y el **contenido** de la palabra o calificativo. La palabra usada quizá es propia de la cultura (ej. Mi chanchito), en ese caso no la considere agresiva. Pero si no es propia a la cultura y es agresiva (ej. “monstruo”, “cochina” “terremoto”, “pesadilla”), no la considere para este ítem.

- Para puntaje 1 considere al menos 2 diminutivos o 1 calificativo cariñoso. Para puntaje 2, no pueden ser sólo diminutivos, y al menos deben haber 3 calificativos cariñosos.
- Lo importante es que la conducta sea consistente. Si en un caso vemos a un adulto que aun cuando hace muchas expresiones positivas hacia niño, pero hace un par de comentarios negativos o agresivos, se puntúa con un 1. Esto es así debido a que la conducta no se realiza en forme consistente.
- Si no se escucha bien el audio, debe verse los videos con **audífonos**.
- No debería otorgarse un puntaje 2 si hay un comentario descalificador o agresivo sobre el niño/a.

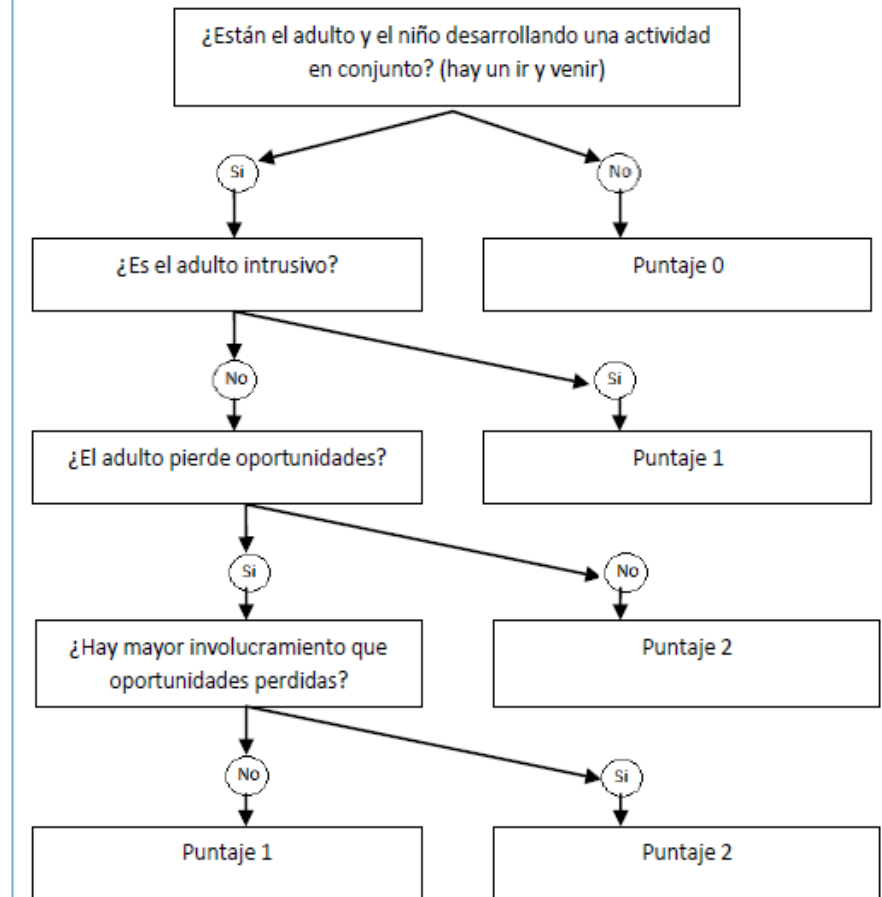
Ítem	Pauta	Observaciones adicionales
6	Está involucrado en interactuar con el niño/a	El adulto se muestra involucrado de forma activa <i>con</i> el niño, y no sólo con la actividad que ejecuta o con otros adultos.

Este ítem no evalúa juego paralelo, como por ejemplo, cuando tanto padres como hijos se encuentran jugando al mismo tiempo, pero cada uno en lo suyo.  
El adulto **debe** estar jugando en conjunto con el niño, y ambos deben estar enfocados en la misma actividad, sin que el adulto sea directivo o pasivo.  
Se espera que con niños pequeños, el adulto esté usando el mismo juguete que el niño. Sin embargo, a medida que el niño adquiere mayores habilidades verbales, el adulto podría estar hablando acerca del juguete o acerca de la conducta del niño o niña.  
Para un puntaje de 2 puntos, el adulto debe estar involucrado la mayoría del tiempo.

#### Observaciones del equipo:

- El involucramiento puede ser físico (ej. Jugar con el niño) o verbal (ej. Comentar lo que el niño está haciendo).
- Con niños menores se espera que el involucramiento sea más físico que verbal.
- Puede considerarse poner un puntaje “2” si el adulto es directivo pero no intrusivo.
- Puntaje 0: el adulto sólo mira lo que el niño hace, juega paralelamente al niño (y no con éste), habla con el evaluador, está mirando su celular.
- Puntaje 1: El adulto se involucra, pero no la mayor parte del tiempo, **o a veces se involucra y otras veces no**. O se involucra pero es intrusivo con el niño. **Lo anterior más la existencia de oportunidades perdidas indican una conducta inconsistente**.  
Un ejemplo de oportunidad perdida sería que el niño proponga una actividad con un juguete y el adulto, dejando pasar esta oportunidad, inicie una nueva actividad que no se relaciona con la iniciativa del niño (interrumpiendo así el ir y venir). Sin embargo, si el adulto realiza un primer intento de mantener una actividad que ya se está realizando en conjunto, dejando pasar una propuesta del niño, esto no se considera necesariamente una oportunidad perdida.
- Puntaje 2: la mayor parte del tiempo **y de manera consistente** el adulto se involucra en una actividad con el niño, ya sea propuesta por el adulto o el niño, pudiendo dar instrucciones al niño pero no siendo intrusivo.

### Cuadro de Decisiones



Ítem	Pauta	Observaciones adicionales
7 Muestra calidez emocional	El adulto demuestra que disfruta, cariño y otras emociones positivas hacia el niño ( <i>Nota: el énfasis se pone en <b>lo no verbal</b></i> ).	Considere la emocionalidad total. El adulto se encuentra <b>disfrutando</b> un buen momento con su hijo/a, la interacción es positiva y el adulto se mantiene interesado. No se observa aburrido o preocupado por el tiempo que queda para jugar con su hijo o hija. El afecto físico es cálido. Considere el interés del padre en conjunto con la calidez. Sin embargo, si el adulto muestra interés, pero su emocionalidad es más bien plana, puntúe con un 1 a menos que el interés esté realmente orientado hacia el niño y el niño esté claramente consciente de dicho interés.

#### Observaciones del equipo:

- Lo fundamental es que se observe que el adulto está disfrutando de la interacción con el niño.
- Ponga puntaje 1 cuando el adulto sólo es cálido verbalmente, o sólo muestra interés pero con una emocionalidad plana o cuando su disfrute es inconsistente.

### I. RESPONSABILIDAD

Los ítems 2, 4 y 5 se observan en función de la conducta del niño.

Ítem	Pauta	Observaciones adicionales
1 Pone atención a lo que está haciendo el niño/a.	El adulto observa y reacciona frente a lo que está haciendo el niño/a a través de realizar comentarios, mostrar interés, ayudar, u otras maneras de prestar atención a las acciones del niño/a.	El adulto presta suficiente atención como para poder describir (en caso que se le preguntase) lo que el niño/a está haciendo durante la mayor parte de la observación. <b>Considere oportunidades perdidas:</b> Por ejemplo, el niño/a intenta mostrar algo al adulto o llamarlo, pero él o ella no mira, no comenta, o no muestra mayor interés. No es necesario para este ítem que el adulto esté involucrado en la actividad, siempre y cuando observe y reaccione frente a lo que está haciendo el niño/a.

#### Observaciones del equipo:

- No basta que el adulto observe al niño/a sino que además debe reaccionar (verbalmente o a través de su conducta).
- Reaccionar no es lo mismo que involucrarse (**es menos exigente**). Implica cualquier conducta verbal o motora que demuestre que el adulto pone atención en lo que el niño/a hace. **Las oportunidades perdidas indican que la conducta no es consistente.**

Ítem	Pauta	Observaciones adicionales
2 Cambia el ritmo o la actividad, de	El adulto prueba una nueva actividad, o	El adulto inicia el cambio para mantener al niño/a involucrado en la actividad, en respuesta a cuando el niño/a comienza a aburrirse o frustrarse. Por ejemplo, el niño/a está aburrido mientras escucha un cuento, entonces



acuerdo a los intereses o necesidades del niño/a	aumenta o disminuye la velocidad de una actividad, en respuesta a lo que el niño/a está observando, a lo que intenta hacer o tocar, a lo que el niño/a dice o a la emoción que el niño/a expresa.	el adulto empieza a hacerle preguntas, o el niño/a está tratando de hacer algo que es difícil por lo que el adulto baja el ritmo de la actividad y le da pistas. Si el niño/a nunca pierde el interés, o nunca intenta realizar algo difícil, o el adulto no cambia el ritmo del juego o actividad, puntúe con un 0. Si el adulto nunca se adapta al ritmo del niño/a – cambia muy rápidamente a una actividad nueva o se mantiene demasiado tiempo en una actividad – puntúe 0. Si el niño/a pierde el interés justo después que el adulto realizó un cambio en el ritmo o de actividad, puntúe con un 1. El adulto puede ser también puntuado por cambiar el ritmo si él o ella sugieren una nueva actividad pero el niño/a no quiere hacerlo, entonces el adulto se mantiene en la actividad que el niño/a ya está realizando.
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### Observaciones del equipo:

- En este ítem de **recomienda mirar primero al niño/a** para detectar situaciones de aburrimiento o dificultad, para luego observar si el adulto cambia el ritmo o la actividad. Si el adulto lo hace pero NO frente a estas actitudes del niño/a, no se considera. **Si el adulto realiza un cambio es porque captó adecuadamente las señales del niño.**
- Aquí no se mide que el adulto interactúe con el niño/a, sino que sea capaz de proponer un cambio de actividad o cambia el ritmo de la misma **SI** el niño/a está aburrido o encuentra difícil la actividad
- También considere si la actividad es difícil, y el adulto no cambia el ritmo pero sí hace algo para ayudar al niño/a (ej. Para el niño es difícil hacer correr el auto en la frazada y el adulto aplana la frazada).
- Los cambios van en relación **con** el niño/a, con su ritmo y sus intereses durante el juego. El adulto inicia el cambio CUANDO el niño se ve aburrido o frustrado.
- No importa lo que ocurra con el niño después del cambio, sino que el foco está puesto en lo que pasa con el niño ANTES, y que motiva el cambio.
- El cambio considera (a) lentificar a apurar el ritmo de la actividad, o (b) cambiar de actividad.
- Lo importante es la **consistencia** con la conducta del niño/a más que la frecuencia. Considere oportunidades perdidas, si hubo situaciones en que el adulto podría haber cambiado la actividad y no lo hizo, versus las veces que sí lo hizo.
- Hay que respetar el ritmo de la diada; en algunas de ellas el cambio de actividad a las señales del niño/a puede ser más rápido, y en otras más lento, para darle tiempo al niño/a de cambiar el mismo. Ambos casos son adecuados y NO se evalúa el timing del cambio.
- Hay que tener más cuidado cuando el adulto o el niño/ son planos, ya que cuesta más mirar este ítem.

Ítem	Pauta	Observaciones adicionales
3 Es flexible frente a los cambios de actividades o intereses del niño/a.	El adulto acepta la elección del niño/a de una nueva actividad o juguete, o se muestra de	El adulto apoya las iniciativas del niño/a. Por ejemplo, el adulto deja que el niño/a escoja cómo o cuando dar vuelta las páginas de un libro, deja que el niño/a explore los juguetes, y no es ni directivo ni pasivo. Si el niño/a no inicia nada, puntúe con 0. Si El adulto se muestra pasivo o no involucrado, puntúe con 0 debido a que él o ella no está siendo flexible - el adulto debe cambiar en algo lo que está haciendo, no simplemente

	acuerdo frente al cambio o cuando el niño/a juega de una forma no convencional con o sin un juguete.	continuar sin hacer nada.
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**Observaciones del equipo:**

- Para considerar que se es flexible la mamá tiene que dar espacio al niño/a, que él pueda cambiar las diferentes actividades y pueda explorar.
- Esta flexibilidad debe observarse en la conducta del adulto. Si no hay un cambio de conducta que la demuestre, se puntúa 0. Es decir, estamos puntuando el si observamos o no una conducta que indique flexibilidad, no si el adulto es flexible como característica de personalidad.
- **Lo importante es observar al niño antes y ver qué conducta realiza el adulto para adaptarse al niño. Aquí nos interesa la flexibilidad del adulto y su capacidad para adaptarse, no la actitud del niño frente a estos cambios.**

Ítem	Pauta	Observaciones adicionales
4 Sigue lo que el niño/a está tratando de hacer.	El adulto responde y se involucra con las actividades del niño/a.	Este ítem incluye ser complaciente con los intereses y motivaciones del niño/a y hacer lo que el niño/a parece que quiere, o atender a lo que el niño/a parece interesado. Incluye conductas tales como repetir lo que el niño/a dice e imitar lo que el niño/a hace, participar como compañero de juego en el juego que el niño/a inicia, y ayudar al niño/a a hacer algo si él o ella tiene dificultades. Involucra más que simplemente hablar acerca de los juguetes. Si el niño/a no hace nada, el adulto no puede seguirlo, entonces puntúe con un 0. Si el niño/a solo toma la iniciativa unas pocas veces pero el adulto sigue y se involucra en cada una de ellas, entonces puntúe con un 2.

**Observaciones del equipo:**

- Ayuda al niño/a cuando no puede realizar una tarea, complementándole sin interferir.
- Se refiere a seguir lo que el niño hace o está interesado, NO es dirigir la actividad.
- El involucramiento puede ser pasivo (por ejemplo solo verbal), pero que se note que el adulto sigue al niño/a y deja que éste dirija el juego.

Ítem	Pauta	Observaciones adicionales
5 Responde a las emociones del niño/a.	El adulto reacciona a los afectos positivos o negativos mostrando entendimiento o aceptación, sugiriendo una solución, reinvolucrando al niño/a,	Para un puntaje 2, el adulto debe coincidir frecuentemente con la expresión e intensidad de las emociones del niño/a, no siendo ni plano ni severo. Esto puede ser sutil, pero un niño/a siempre está mostrando alguna emoción, incluso si ésta no es fuerte o animada. Si el niño/a no se encuentra involucrado, ésta es una emoción, y la respuesta apropiada del adulto podría ser volver a involucrar al niño/a de alguna forma o proveerle la oportunidad de un juego más tranquilo o de descansar. El adulto podría describir las emociones diciendo lo que le gusta al niño/a: "Realmente te gusta jugar con los autos, ¿no?", "No te gusta el sonido que emite eso, ¿cierto?", o "Se siente bien, eh?". <b>Considere oportunidades perdidas</b> , por ejemplo, si el niño/a

	etiquetando o describiendo la emoción, mostrando una emoción similar, o proveyendo simpatía frente a emociones negativas.	está excitado con un juguete, pero la expresión emocional del adulto se mantiene plana.
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#### Observaciones del equipo:

- Al referirse a que el adulto reacciona a la emocionalidad nos referimos a que él o ella trata de involucrarse, comprender y estar en sintonía con el niño/a. Sensación de encuentro. **Ello por ejemplo puede verse en que le pregunte qué le gusta o qué quiere, el considerar no solo las emociones sino los intereses y motivaciones es parte de este ítem.**
- Sintonía emocional con el niño/a, **lo importante es la coherencia, no exactamente la calidad de la respuesta, sino que haya sintonía.**
- El adulto capta la emoción del niño y reacciona a ella (verbal, gestual, emocional, conductual)
- Observar al niño/a (su emocionalidad) y luego ver la reacción del adulto.
- Tener más cuidado al observar si el niño/a es plano.
- **Por último es importante fijarnos en el tipo de emoción. Por ejemplo si madre y niño están en una sintonía emocional plana, no positiva, eso sería preocupante, y se pone "0". Pero, si el niño tiene una tonalidad emocional plana y la mamá intenta "activarlo" más, eso sería bueno y se puntuaría con un 2.**
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Ítem	Pauta	Observaciones adicionales
6 Mira al niño/a cuando él o ella habla o realiza sonidos.	Cuando el niño/a realiza sonidos, el adulto mira claramente a la cara del niño/a o al rostro o cabeza si no puede ver los ojos del niño/a. La posición del adulto y su cabeza se encuentran orientados hacia el niño/a.	A menos que el niño/a se encuentre leyendo sentado sobre las piernas del adulto, éste generalmente mira al niño/a cuando éste habla. El adulto podría volverse hacia el niño/a o simplemente mirar de reojo al niño/a la mayoría del tiempo cuando éste vocaliza o habla. Si el adulto ya se encuentra mirando en la dirección del niño/a cuando éste comienza a vocalizar, entonces se considera que el adulto sí está mirando al niño/a cuando éste habla o hace sonidos. Si tanto el adulto como el niño/a se encuentran mirando un mismo objeto y hablando acerca de éste, o el adulto se orienta hacia el objeto del cual el niño/a está hablando, esto se considera como atención conjunta y es una buena conducta parental, sin embargo no se considera como parte de este ítem. <b>Considere oportunidades perdidas:</b> El niño/a llama al adulto o realiza sonidos, pero el adulto no mira hacia el niño/a.

Ítem	Pauta	Observaciones adicionales
7 Responde frente a las palabras o sonidos del niño/a.	El adulto repite lo que el niño/a dice o los sonidos que realiza, habla acerca de lo que el niño/a está diciendo o podría estar diciendo, o responde a las preguntas del niño/a.	Para un puntaje 2, el adulto responde a la mayoría de las vocalizaciones del niño/a. Si el niño/a no realiza ningún sonido, puntúe como 0. Si el niño/a realiza sólo uno o dos sonidos pero el adulto responde consistentemente, entonces puntúe como 2. Algunas respuestas tales como “aha aha” podrían no ser responsivas. Si es así, evalúe con menos puntaje. La consistencia es más importante que la frecuencia. <b>Considere oportunidades perdidas:</b> El niño/a está hablando o realizando sonidos, y el adulto no dice nada o habla muy poco.

**Observaciones del equipo:**

- La respuesta del adulto tiene que ser verbal

**II. ALIENTO**

**En esta escala es muy importante estar atentos a las oportunidades perdidas.**

Ítem	Pauta	Observaciones adicionales
1 Espera la respuesta del niño/a luego de realizar alguna sugerencia.	El adulto realiza una pausa luego de decir algo que el niño/a podría hacer, y <u>espera</u> una respuesta por parte del niño/a o que éste haga algo, independientemente de que el niño/a responda o no.	El adulto realiza una sugerencia para que el niño/a haga algo específico, y luego <u>realiza una pausa</u> y <b>no</b> realiza la actividad o acción sugerida, ni mueve la mano del niño/a, ni hace nada que <u>pudiese interferir</u> con lo que el niño/a está haciendo –es lo opuesto a un juego intrusivo. La espera a menudo puede observarse como un adulto que se echa hacia atrás, baja sus manos, está relajado, y tiene una expresión de apertura y paciencia. El adulto podría repetir la sugerencia luego de unos segundos, <u>pero el tono no sugiere impaciencia o demanda</u> . Las sugerencias pueden ser planteadas en forma de preguntas, tales como “¿Te gustaría jugar a la pelota?”, o “¿Qué tal si ponemos los cubos en el canasto?”. El adulto podría iniciar la conducta, pero luego hacer una pausa para esperar la respuesta del niño. <b>Este ítem no incluye</b> preguntas para solicitar información, tales como “¿Qué es esto?”.

**Observaciones del equipo:**

- Se debe hacer una sugerencia verbal y específica al niño, y luego esperar, dar una pausa al niño para que lo haga (independientemente de si el niño lo hace o no)
- NO incluye preguntas para solicitar información (“que es eso?”, “como hace el león?”), ni sugerencias generales (“juguemos?”, “quieres jugar?”)
- Es importante diferenciar entre sugerencias generales y específicas; “canta” es general, mientras “canta la cuncuna amarilla” es específica. “Juguemos” es general, mientras que “juguemos con los cubos” es específica. Solo se codifican las específicas.
- Este ítem tiene **dos partes**; el dar sugerencias específicas, y luego dar la pausa.
- La sugerencia puede ser más o menos directiva, o una instrucción, lo importante es que se dé el espacio para la respuesta del niño, Y en una actitud paciente.
- El hacer sugerencias pero sin dar una pausa, así como el dar sugerencias con un tono impaciente, se consideran oportunidades perdidas.

- Resumen: SE deben contabilizar aquellas situaciones en que (a) la sugerencia es específica, (b), el tono es paciente, y (c) hay una pausa. NO castigar por las veces en que ello no ocurre, sino evaluar frecuencia de lo que sí ocurre.
- Para que sea puntaje 2, deben ser **3 o más** sugerencias específicas. Y la pausa debe mínimamente dar el tiempo para que el niño/a pudiera iniciar la conducta (lo haga o no).
- **Es importante fijarnos que las sugerencias no sean instrucciones ni indicaciones.**
- **En caso de dudas sobre cuán intrusiva en la mamá, lo importante es mirar al niño. Si el niño mantiene una buena interacción, esto nos indica que la mamá no fue intrusiva (mirar al niño antes de pensar en cómo nos llegó la mamá a nosotros).**

Ítem	Pauta	Observaciones adicionales
2 Alienta al niño/a manejar los juguetes.	El adulto ofrece juguetes o dice cosas positivas cuando el niño/a muestra un obvio interés en los juguetes (No considere aquellas ocasiones en que el adulto previene que el niño/a se lleve objetos a la boca).	Este ítem incluye pasar juguetes al niño, mostrarle juguetes al niño/a, acercar juguetes al niño/a, demostrar algo con el juguete, llamar la atención sobre un juguete moviéndolo o usándolo, realizar sonidos con un juguete para llamar la atención, o reforzar lo que el niño/a está haciendo con el juguete. Este ítem también puede incluir el imitar lo que el niño/a está haciendo con el juguete sin interferir o interrumpir lo que el niño/a está haciendo. El objeto no tiene que ser un juguete. <b>Este ítem no incluye</b> observar pasivamente al niño/a.

#### Observaciones del equipo:

- El alentar al niño a manejar juguetes puede ser a través de la conducta del adulto (ej. Ofrecerle un juguete, mostrárselo) o verbalmente (ej. Reforzar verbalmente o hacer un comentario sobre lo que está haciendo el niño, o sobre lo que puede hacer)
- **Puede ser que esta conducta se manifieste no con juguetes pero sí con otros objetos. Lo importante es la exploración.**

Ítem	Pauta	Observaciones adicionales
3 Apoya al niño/a en tomar decisiones.	El adulto permite al niño/a elegir una actividad o juguete, y se involucra en la actividad o con el juguete que el niño/a escoge.	El adulto puede aceptar la elección del niño y se involucra, o bien puede ofrecer opciones e involucrarse. El adulto puede ofrecer opciones genuinas de forma verbal, tal como cuando pregunta “¿Cuál prefieres?”, o describiendo opciones, u ofreciendo sugerencias alternativas que se presentan como opciones verdaderas. Preguntas retóricas como “¿Quieres que te lea un libro?” acompañadas de la conducta de abrir el libro y comenzar a leer no es una verdadera opción. El adulto puede ofrecer opciones de forma no verbal como cuando pone varios juguetes al alcance del niño/a.

### Observaciones del equipo:

- Alentar que el niño tome decisiones puede ser:
  - (a) que el niño elija un juego y el adulto lo apoya **y se involucra** (jugando con el niño/a, o haciéndole un comentario o pregunta sobre lo que el niño/a hace), o
  - (b) que el adulto le ofrezca verbalmente o con su conducta, dos opciones (juguete a o b, o jugar o no a algo). También pueden ser dos opciones verbales, por ejemplo, “quieres un león o un hipopótamo?”
- Es importante que el adulto no solo aliente que el niño tome decisiones, sino que las respete (eso se ve en el involucrarse).
- El involucrarse puede ser verbalmente o con su conducta. Es una conducta activa hacia lo que el niño está haciendo.

Ítem	Pauta	Observaciones adicionales	
4	Apoya al niño/a en hacer cosas por sí mismo/a.	El adulto muestra entusiasmo por cosas que el niño/a intenta hacer sin ayuda, deja que el niño/a escoja cómo se hacen las cosas, y deja que el niño/a intente hacer algo antes de ofrecerle ayuda o realizar sugerencias. El adulto puede estar involucrado en la actividad que el niño/a hace “por su propia cuenta”.	Para obtener un puntaje de 2, el niño/a debe intentar hacer algo por su cuenta y el adulto debe realizar claramente al menos 2 de las siguientes 3 cosas: 1) mostrar entusiasmo, 2) dejar que el niño/a escoja y 3) dejar que el niño/a intente hacerlo sin ayuda. Sin embargo, aunque el adulto no ofrezca ayuda o no realice una sugerencia, el adulto igual debe estar observando, esperando, y mostrando interés y una respuesta positiva hacia lo que el niño/a está haciendo por su cuenta, sin interferir, para obtener un puntaje de 2 puntos. Si el adulto sólo realiza una de estas alternativas –mostrar entusiasmo, dejar que el niño escoja, o dejar que el niño intente sin ayudarlo, puntúe con un 1. Si además el adulto interfiere en lo que el niño/a intenta hacer por sí mismo/a a través de la crítica o no brindándole opciones, o no dejando que el niño/a trate de hacer las cosas antes de ofrecerle ayuda o darle sugerencias, no puntúe con más de un punto. Si el niño/a no intenta hacer nada por su cuenta, puntúe con 0 puntos.

### Observaciones del equipo:

- Lo importante es que el niño **trate de hacer algo por sí mismo**, independientemente de que sea difícil o no, y que el adulto se lo permita.
- El juego paralelo no aplica como parte de esta conducta.
- La conducta del adulto se califica en función de la conducta del niño/a, es decir, si el niño/a sólo una vez intenta hacer algo por sí mismo y el adulto lo permite, lleva puntaje 2. Si el niño/a intenta hacer algo por sí mismo varias veces, se califica la conducta del adulto en relación a esas ocasiones, por ejemplo si el niño/a trata de hacer algo 5 veces y el adulto solo 2 veces lo apoya, es raramente.

Ítem	Pauta	Observaciones adicionales
5 Alienta verbalmente los esfuerzos del niño/a. <b>O.P.</b>	El adulto demuestra entusiasmo de forma verbal, realiza comentarios positivos o realiza sugerencias sobre las actividades del niño/a.	Este ítem incluye que el adulto anime al niño/a cuando él/ella trata de realizar algo. Por ejemplo: “Vamos, ¡tú puedes!”, “Intenta de nuevo”, “Tú lo puedes hacer”, “Mira, como le pones empeño”, “Lo puedes hacer”, “sigue tratando”, e “Inténtalo más despacio/rápido/suave/con fuerza”. Las respuestas pueden incluir descripciones de lo que el niño/a se encuentra haciendo, tales como “¡Estás poniendo todos los cubos en la caja!”, o “¡estás uniendo los bloques con tanto cuidado”. Este ítem también incluye refuerzos por logros, tales como “¡Lo hiciste!”. Este tipo de conducta es más probable que aparezca cuando se trata de una actividad desafiante para el niño/a. <b>Considere oportunidades perdidas:</b> El niño/a está intentando fuertemente realizar algo, pero el adulto no lo alienta antes, durante o después del evento.

**Observaciones del equipo:**

- El adulto debe hablarle al niño, lo que le diga al niño debe ser en un tono positivo. Las sugerencias también cuentan.

Ítem	Pauta	Observaciones adicionales
6 Ofrece sugerencias para ayudar al niño/a. <b>O.P.</b>	El adulto da pistas o hace comentarios para <i>facilitarle</i> la actividad al niño/a sin interferir en su juego.	Las sugerencias deben ser un aporte –algo que facilite lo que el niño/a está haciendo o lo que aparentemente está haciendo. Ejemplos incluyen “Está al revés”, “empuja más fuerte”, o “Dalo vuelta”. Este ítem también incluye pistas, tales como cuando el adulto le pregunta al niño/a “¿Qué es esto?”, luego le podría decir “¿Te acuerdas que vimos uno igual en la casa de la abuela anoche?”, o si el niño/a está contando o deletreando el alfabeto y se queda estancado, el adulto podría darle una pista diciendo el siguiente número o letra. <b>Considere oportunidades perdidas:</b> El niño/a se encuentra aproblemado y el adulto no le ofrece sugerencias.

**Observaciones del equipo:**

- Las sugerencias deben ser aquellas que faciliten la resolución de un conflicto durante el juego. Debe ser una sugerencia verbal, sin interferir. El niño debe poder decir “sí” o “no” ante la sugerencia del adulto, sino es una orden o instrucción.
- Ayudarlo pero sin resolvérselo. **Sugerir es distinto a dar indicaciones o instrucciones.**
- Las sugerencias o pistas deben darse cuando el niño/a ya está realizando un juego (o ambos ya están jugando, sin importar quién inició el juego), y la sugerencia o pista (verbal) busca alentar el juego, fomentar una mayor complejidad o facilitar si el niño/a está teniendo problema. Por ejemplo, el niño está con la muñeca en brazos, y la mamá le dice “cántale para que se quede dormida”. O “eso es un.....”

Ítem	Pauta	Observaciones adicionales
7 Muestra entusiasmo acerca de lo que el niño/a está realizando.	El adulto hace comentarios positivos, aplaude, o muestra claramente otro tipo de	El entusiasmo debe ser acerca de la conducta del niño/a, no por el juguete o por las ideas propias del adulto. Tome nota de las muestras sutiles de entusiasmo del adulto mostradas al asentir, demostrar interés o realizar preguntas. <b>Considere oportunidades perdidas:</b> El adulto no se muestra interesado o entusiasta cuando el niño/a se encuentra excitado en una actividad.

O.P.	respuesta positiva frente a lo que el niño/a <i>está haciendo</i> , incluyendo un entusiasmo calmado como por ejemplo, dar palmaditas al niño/a, asentir, sonreír, o realizarle preguntas al niño/a acerca de las actividades.	
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**Observaciones del equipo:**

- Para un puntaje de 2, debe seguir el adulto lo que el niño hace, estar involucrado en su actividad.
- Se evalúa presencia **y consistencia del** entusiasmo, no intensidad.

**IV. ENSEÑANZA**

**Aquí lo importante no es “contar” las conductas, sino que sean consistentes.**

Ítem	Pauta	Observaciones adicionales
1 Explica las razones de algo al niño/a.	El adulto dice algo que podría ser una respuesta a una pregunta del tipo “¿Por qué?”, ya sea que el niño/a haya o no realizado una pregunta.	Las razones del adulto, habitualmente tienen una estructura causal y explica cómo suceden las cosas o por qué suceden, o qué le sucede a algo. Algunos adultos usan palabras tales como “de esta forma”, o “porque...” o si... entonces”. Algunos ejemplos incluyen “pon la tapa para que no se derrame.”, “se puede derramar si la tapa no está apretada porque se puede salir entre el hoyo de la botella y la tapa”, “Tenemos que cocinar la comida así la podemos comer”, o “Si tú no cocinas la comida, entonces hará que nosotros nos enfermemos”. Explicar cómo las cosas ocurren puede ser la descripción de un proceso, como “la nieve está en el suelo en el invierno, pero cuando llega la primavera, comienza a calentarse, y se derrite en agua para las flores”. Esta es una conducta menos frecuente, por lo que una explicación extensa o compleja puede recibir 2 puntos.

**Observaciones del equipo:**

- Con una sola explicación extensa o compleja, basta para poner 2 puntos.
- En caso de explicaciones cortas o simples, tienen que haber 2 o más para un puntaje 2 (considere oportunidades perdidas).

Ítem	Pauta	Observaciones adicionales
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2 Sugiere actividades para extender lo que el niño/a está haciendo.	El adulto dice algo que el niño/a puede hacer para añadir algo a lo que niño/a ya está haciendo, pero no interrumpe los intereses, acciones o juego del niño/a.	Las sugerencias deben construirse sobre lo que el niño/a ya está haciendo, explicando qué es lo que el niño/a está haciendo para agregar a cómo el niño/a ya está jugando, expandir su juego, o hacer el juego más complejo. Las sugerencias para extender el juego deben hacerse en base a lo que el niño/a ya está haciendo y añadiéndole algo de alguna manera.
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**Observaciones del equipo:**

- Las sugerencias también pueden ser preguntas que vayan ampliando el juego.
- Son para añadir algo o complejizar el juego del niño, no para facilitar su juego ni para ayudarlo, ni comentar solo lo que está haciendo. Tiene que añadir algo nuevo. Ejemplo, el niño está haciendo una torre y el adulto le dice “ese no va ahí”, eso es una pista, pero no ayuda a ampliar el juego. “Mira, si le pones ese arriba te va a quedar alto”, sí aplica a este ítem.

Ítem	Pauta	Observaciones adicionales
3 Repite o expande las palabras o sonidos del niño/a.	El adulto repite las mismas palabras o hace los mismos sonidos que el niño/a realiza, o repite lo que el niño/a dice mientras le agrega algo a la idea.	El adulto repite las palabras exactas del niño/a o repite los sonidos del niño/a, o expande agregando palabras o sonidos a lo que el niño/a dice. Si el niño/a dice “Perrito”, el adulto podría decir “cierto, es un perrito”, o expandir la idea con algo más complejo, como diciendo “Sí, es un perrito grande y café, sentado junto a su casa para perros”.

**Observaciones del equipo:**

- Para conseguir puntaje 2 debe tener al menos una repetición con ampliación, o al menos dos o más repeticiones (considere oportunidades perdidas).
- Tiene que ser conducta verbal por parte del adulto y no respuestas a lo que el niño dice, sino repeticiones.

Ítem	Pauta	Observaciones adicionales
4 Etiqueta objetos o acciones para el niño/a.	El adulto nombra lo que el niño/a está haciendo, jugando con o mirando.	Sustantivos y verbos son etiquetas para objetos y acciones: “Es una cocina, y tú puedes cocinar con ella”. Cuando el adulto dice cosas como “el libro tiene un hoyo” el adulto está etiquetando tanto el libro como al hoyo. Las etiquetas ocurren generalmente de manera natural como parte de una conversación, y pueden ser fáciles de pasar por alto. El adulto señala una imagen en el libro y dice “Mira aquí, está tejiendo una tela de araña”, etiquetando tanto la acción ( <i>tejiendo</i> ) como el objeto ( <i>tela de araña</i> ); “Esto es un estetoscopio”, etiquetando el objeto ( <i>estetoscopio</i> ); “Tú le estás dando más medicina al oso”, etiqueta tanto la acción ( <i>dando</i> )

y los objetos (*medicina, oso*). Considere la diversidad de materiales y acciones disponibles para etiquetar.

- Para que sea puntaje "0" lo que puede pasar es que el adulto no hable nada, o que su lenguaje sea siempre vago (ej. "mira eso", "sí, eso", oye, te gustó?", "pásame esa cosa", etc)

Ítem	Pauta	Observaciones adicionales
5	Se involucra en el juego simbólico (o de pretender) con el niño/a. El juego del adulto hace creer en él, por ejemplo "comiendo" comida ficticia.	El juego ficticio (o de pretender) puede ocurrir tomando un rol (jugar a pelear duramente y a derribarse, ser el paciente en un juego del doctor), usando un objeto para representar algo distinto (pretender que un bloque es un auto moviéndolo sobre el suelo y haciendo sonidos de auto), pretendiendo que algo es real (comiéndose la pizza, decir que la comida está caliente, realizando sonidos de animales para los pequeños animales plásticos, haciendo sonidos de auto para los autos de juguete, o haciendo que las muñecas hablen), o pretender que se es el personaje del libro (usando la voz animada y la expresión facial correspondiente mientras se lee). El adulto debe estar pretendiendo y haciendo comentarios "como si" el pretender fuera real, y no solo narrar lo que el niño/a está pretendiendo. Por ejemplo, no sólo decir "puedes hacer como si preparas la cena" sino "por favor, prepárame la cena". No sólo, "deja las compras en el carro" sino "¿qué más podemos comprar?". No es suficiente que el adulto describa lo que el niño/a está pretendiendo, sino que de alguna forma el adulto debe pretender también.

**Observaciones del equipo:**

- Juego de pretender o de simulación, o de roles.
- No es suficiente que el adulto describa lo que el niño/a está pretendiendo, sino que de alguna forma el adulto debe pretender también y dentro del juego del niño.
- Si el niño nunca pretende, o pretende pero el adulto no se involucra, se pone 0. Si el niño realiza una vez un juego de pretender y el adulto se involucra y pretende con él **de manera consistente, se asigna, un puntaje 2. Si otras veces el niño pretende y el adulto no se involucra se considera una oportunidad perdida, aludiendo a conducta inconsistente, y se pone un 1.**

Ítem	Pauta	Observaciones adicionales
6	Realiza actividades en una secuencia de pasos. El adulto demuestra o describe el orden de pasos, o realiza una actividad en una forma en que un orden definitivo de pasos es claro, aunque el adulto no diga exactamente cuáles son	Los pasos deben ocurrir juntos con claros vínculos entre sí, y no pueden romperse con otras actividades entre medio. La secuencia paso-a-paso debería ser algo que usted pueda describir fácilmente en palabras: "Primero, el niño/a pasa al adulto algo para comprar. Luego él/ella lo pasa por la máquina registradora. Luego, el niño/a le pasa la siguiente cosa al adulto y él/ella lo pasa por la máquina. Hacen lo mismo para cada cosa y luego él/ella le dice al niño/a cuánto debe". Una secuencia de pasos generalmente se repite, es descrita en palabras o se demuestra explícitamente en pasos. Si no hay descripción o repetición, la demostración debe ser acerca de algo que no se puede realizar en otra secuencia (por ejemplo, saca la tapa de la olla, pon algo dentro de la olla, revuelve, y luego pon de nuevo la tapa). Rutinas lúdicas tales como "¿Dónde está?"

	<p>los pasos. La lectura de libros <i>sólo</i> se considera si el adulto explicita los pasos, ya sea exagerando o explicando los pasos para leer un libro.</p>	<p>(Peekaboo) típicamente siguen una secuencia específica de pasos. Si el adulto dice algo como “Primero tenemos que guardar estos juguetes antes de que saquemos los otros juguetes” y luego lo hacen, cuenta como una serie de pasos. Incluya el contar y el orden en la lectura de un libro <i>sólo</i> cuando el adulto le está enseñando explícitamente al niño/a a contar o a mirar un libro.</p>
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**Observaciones del equipo:**

- Las secuencias pueden ser explícitas como el darle de comer a una muñeca o ir haciendo una torre de cubos sin hablar de los pasos. En la lectura del cuento si es necesario explicitar secuencia de pasos
- Aunque la secuencia de pasos sea sobre algo sencillo (por ejemplo pasarse algo y decir “ya”), ello debe claramente ser parte de un juego, no basta que el niño una vez le pase algo a la mamá y ella diga “ya”. Es como que tienen que empezar a jugar a eso.
- **La secuencia de pasos le permite al niño tener la expectativa de lo que viene luego.**
- **Si la secuencia de pasos se observa en un juego paralelo, donde el adulto la realiza pero no le describe ni demuestra nada al niño, se pone “0”.**
- Secuencia puede ser (nota: tiene que ser al menos en parte realizada por el adulto):
  - a. Una demostración que incluye varios pasos (ej. Destapar la olla, revolver, volver a taparla)
  - b. Una repetición de una conducta lúdica (turnos para algo, pasar y devolver, “donde está”)
  - c. Juegos que implican pasos como la construcción de una torre
- Para que sea un puntaje 2, **debe observarse que esta conducta sea consistente y que se aprovechen las oportunidades.**

Ítem	Pauta	Observaciones adicionales
7 Habla al niño/a acerca de las características de los objetos.	El adulto usa palabras o frases que describen características tales como color, forma, textura, movimiento, función u otras características.	Las características de los objetos son descritas principalmente a través de adjetivos. Explicaciones acerca de la función como “los libros son para leer”, o “esto sirve para escuchar el latido del corazón” también se consideran como características de los objetos. Cuando el adulto dice “Los perros dicen guau” se considera como una característica funcional del objeto (pero no como explicación). Tanto la variabilidad como la frecuencia son importantes. Decir “rojo” muchas veces no es tan claro como decir “rojo”, “grande” y “redonda”. Este ítem incluye referencia al número de objetos: “Hay dos leones”. Cuando el adulto dice que la comida que el adulto y el niño/a están pretendiendo que cocinan que está caliente, puede ser ambos, pretender y hablar de las características de los objetos. Cuando el adulto habla acerca de imágenes de un libro, las palabras pueden tanto etiquetar como hablar acerca de las características de los objetos (simplemente leer las palabras en el libro no cuenta). Escuche cuidadosamente porque los juguetes pueden sacar palabras acerca de colores

		y formas, pero las palabras pueden ser también usadas para describir los objetos. Por ejemplo, si el adulto dice “aquí hay un cubo, ¿puedes ponerlo dentro de la caja?”, el adulto ha etiquetado los objetos pero las palabras no se han usado como descripciones. Si el adulto dice “es un cubo cuadrado, y va dentro del hoyo cuadrado”, entonces el adulto está describiendo características de los objetos. La complejidad y la variedad (color, forma, textura, función) tienen mayor peso.
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**Observaciones del equipo:**

- Tienen que ser características DEL objeto (color, forma, textura, función, cantidad, peso, temperatura, etc.)
- NO corresponde evaluar acá características de las personas, ni calificativos de los objetos (ej. Que bonito, que entretenido).

Ítem	Pauta	Observaciones adicionales
8 Le pide información al niño/a.	El adulto realiza cualquier tipo de pregunta o dice “Cuéntame”, Muéstrame”, u otra instrucción que requiera una respuesta de si/no, respuestas cortas, o respuestas largas, a pesar que el niño/a conteste o no. No incluye preguntas para dirigir la atención, (“¿Ves?”) o para sugerir actividades (“¿Quieres abrir la bolsa?”).	Las preguntas deben ser realizadas en una forma tal que eliciten una comunicación por parte del niño/a, no solo por imitación. El adulto debe esperar una respuesta y demostrar claramente que espera una respuesta del niño/a. Las preguntas que preguntan verdaderamente por información, a menudo se repiten si el niño/a no contesta inmediatamente. Estas preguntas no consideran preguntas retóricas, sugerencias realizadas en forma de preguntas, o preguntas de confirmación tales como “¿Quieres revolver la olla?” o “Es una cuchara grande, ¿no?”. Cuente todas las preguntas simples tales como “¿Qué es eso?” o unas pocas preguntas abiertas como “¿Cuéntame lo que estás construyendo con esos cubos”, seguido de frases alentadoras como “¿Y qué más?”.

**Observaciones del equipo:**

- El adulto le pregunta algo al niño/a que implique una respuesta verbal por parte del niño. No son sugerencias, ni relatar lo que el niño hace, sino **pedir información** (independientemente de que el niño responda o no).
- NO incluye los siguientes casos:
  - a. Preguntas cuyo objetivo es dirigir la atención del niño (viste? Mira! Ves?)
  - b. Sugerencias de actividades (quieres cantar?)

Edades y Etapas: Social-Emocional

Un Cuestionario Completado por los Padres para Evaluar el Comportamiento Social-Emocional de los Niños\*

Por Jane Squires, Diane Bricker y Elizabeth Twombly

con la ayuda de Suzanne Yockelson, Maura Schoen Davis y Younghee Kim

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36 Meses/3 Años  
Cuestionario



(Para niños de 33 a 41 meses de edad)

*Puntos Importantes de Recordar:*

- Las preguntas por turno usan "niño" o "niña" como ejemplos. Por favor conteste todas las preguntas sin importar si usted tiene un niño o una niña.
- Por favor devuelva este cuestionario antes del día \_\_\_\_\_.
- Si tiene alguna pregunta o preocupación acerca de su bebé o acerca de este cuestionario, por favor llame a \_\_\_\_\_.
- Muchas gracias y por favor espere llenar otro cuestionario en \_\_\_\_\_ meses.

\* Translated from the English:  
Ages & Stages Questionnaires®: Social-Emotional  
A Parent-Completed, Child-Monitoring System  
for Social-Emotional Behaviors, Squires et al.  
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Por favor lee cada una de las preguntas con cuidado y					MARQUE SI ESTO ES UNA PRE-OCUPACIÓN
1. Marque el cuadro <input type="checkbox"/> que describa mejor el comportamiento de su niño/a y	2. Marque el círculo <input type="radio"/> si este comportamiento le preocupa	LA MAYORÍA DE LAS VECES	ALGUNAS VECES	RARA VEZ O NUNCA	
1. Cuando usted le habla a su niña, ¿le mira a usted?		<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
2. ¿A su niño le gusta que lo abracen o lo acurruquen?		<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
3. ¿Habla y/o juega su niña con adultos que ella conoce bien?		<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
4. ¿Se apega su niño a usted más de lo que usted espera?		<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
5. Cuando su niña está alterada, ¿se puede calmar dentro de 15 minutos?		<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
6. ¿Parece ser su niño demasiado amistoso con los desconocidos?		<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
7. ¿Se puede calmar por sí misma su niña después de períodos de actividad agitada?		<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
8. ¿Puede pasar su niño de una actividad a otra sin mucha dificultad, como de la hora de jugar a la hora de comida?		<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
9. ¿Parece ser contenta su niña?		<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
TOTAL EN LA PÁGINA					___

	LA MAYORÍA DELAS VECES	ALGUNAS VECES	RARA VEZ O NUNCA	MARQUE SI ESTO ES UNA PRE- OCUPACIÓN
10. ¿A su niño le interesan las cosas alrededor de él, como personas, juguetes y comida?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
11. ¿Hace su niña lo que usted le pide?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
12. ¿Parece ser su niña más activa que otros niños de su misma edad?	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
13. ¿Puede permanecer su niña con actividades que le gustan por lo menos 5 minutos (no incluye mirando la televisión)?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
14. ¿Usted y su niño disfrutan de la hora de comida juntos?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
15. ¿Tiene su niña problemas con la alimentación, como llenarse la boca, vomitar, comer cosas que no son comida o _____? (Usted puede anotar cualquier problema.)	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
16. ¿Duerme su niño por lo menos 8 horas dentro de un período de 24 horas?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
17. ¿Usa palabras su niña para decirle lo que quiere o necesita?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
TOTAL EN LA PÁGINA				___



	LA MAYORÍA DE LAS VECES	ALGUNAS VECES	RARA VEZ O NUNCA	MARQUE SI ESTO ES UNA PRE- OCUPACIÓN
18. ¿Sigue su niño las instrucciones de rutina? Por ejemplo, ¿viene a la mesa o ayuda a recoger sus juguetes cuando se lo pide?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
19. ¿Llora, grita o hace berrinche su niño durante mucho rato?	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
20. ¿Lo/la busca con la mirada su niño para asegurarse que usted está cerca cuando él está explorando lugares nuevos, como un parque o la casa de un amigo?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
21. ¿Hace su niña las cosas una y otra vez y parece incapaz de dejar de hacerlo? Unos ejemplos son mecerse, manotear, dar vueltas o _____ . (Usted puede anotar cualquier otra cosa.)	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
22. ¿Se lastima su niño a propósito?	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
23. ¿Se mantiene alejada su niña de los peligros, como el fuego o los carros en movimiento?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
24. ¿Destruye o daña las cosas a propósito su niño?	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
25. ¿Usa palabras su niña para describir sus sentimientos y los sentimientos de otros, por ejemplo, "Estoy contenta", "No me gusta eso" o "Ella está triste"?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
TOTAL EN LA PÁGINA				___



	LA MAYORÍA DE LAS VECES	ALGUNAS VECES	RARA VEZ O NUNCA	MARQUE SI ESTO ES UNA PRE- OCUPACIÓN
26. ¿Puede nombrar a un amigo su niño?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
27. ¿A los otros niños les gusta jugar con su niña?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
28. ¿A su niño le gusta jugar con otros niños?	<input type="checkbox"/> c	<input type="checkbox"/> v	<input type="checkbox"/> x	<input type="radio"/>
29. ¿Intenta su niña lastimar a otros niños, adultos o animales (por ejemplo, pateando o mordiendo)?	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
30. ¿Muestra su niño interés en o conocimiento de lenguaje sexual y actividad sexual?	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
31. ¿Ha expresado alguien preocupación por el comportamiento de su niña? Si usted marcó "algunas veces" o "la mayoría de las veces", por favor explique:	<input type="checkbox"/> x	<input type="checkbox"/> v	<input type="checkbox"/> c	<input type="radio"/>
32. ¿Tiene usted preocupaciones por las costumbres de comer, dormir o ir al baño de su niño? Si así es, por favor explique:				
TOTAL EN LA PÁGINA				___

33. ¿Hay algo que le preocupa de su niña? Si así es, por favor explique:

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34. ¿Cuáles son las cosas que disfruta más de su niño?

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