1. Introduction

Maltreatment is a complex problem affecting the lives of thousands of families and children. In fact, not only is maltreatment a major societal issue carrying substantial socio-economic costs in relation to medical and social allowances, but it also has devastating effects on child development. There is thus a pressing need to better understand the dysfunctional interactions occurring between abusive/neglecting parents and their children in order to improve evaluation and intervention strategies with these families. In the past few years, attachment theory has provided a solid foundation for understanding the risk and resiliency factors involved in the development of maltreated children and guided the development of assessment and intervention protocols for this at-risk population. Attachment theory and related empirical studies thus provide relevant knowledge about the processes through which maltreatment may negatively impact child development, as well as the clinical applications and best-suited practices for this population.

According to the ecological-transactional perspective child attachment is an important protective factor for the development of children with a history of abuse and neglect [1]. More precisely, this perspective [2] sustains that maltreated children's adaptation is affected by several systemic levels, some closer to the child such as the system including family relationships, and others more distal, such as the community and cultural values systems. Though the ecological-transactional model acknowledges the influence of different systemic levels, systems closest to the child are considered has having the greatest impact on child development. Problematic and dysfunctional parent-child interactions, which are characteristic of families subject to maltreatment, have a more direct effect on child
development than more distant variables such as poverty or parents' psychological state of mind. Therefore, based on this model, parent-child interactions and child attachment to parent act as relational mediating processes between distal systemic variables and child adaptation, and thus become primary interventional targets for promoting child development.

The objective of this chapter is to present attachment theory as a useful framework for assessing and promoting parental competency in child protection cases. In the first section of this chapter, we present key concepts of attachment theory, which are at the heart of all attachment-based clinical protocols. In the second section, the two main attachment-based intervention models are discussed: 1) the long-term model which addresses parents’ representations of attachment relationships, and 2) the short-term model which uses video-feedback to modify inadequate parental behavior. In addition to describing these intervention models, this section provides a review of studies having tested the efficacy of these protocols with parents and children reported for child maltreatment. In the third and final section, we present how a short-term attachment-based intervention protocol may be used in the assessment of parental capacity in child protection cases.

2. Attachment theory: Key concepts

Studies in attachment have consistently shown the undisputed role of attachment in child development. In particular, studies have repeatedly demonstrated that the quality of child attachment to parent is one of the best indicators of the child’s mental health and later adaptation [3,4]. All children, with some rare exceptions, develop an attachment relationship with their caregiver and view this figure, even if inadequate, negligent or abusive, as a potential source of comfort in stressful situations. The display of attachment behaviors by the child stems from a biologically driven system in which the child is dependent on the caregiver’s responsiveness to their needs to ensure survival. As such, the child’s capacity to form a bond with a caregiver does not depend on the type of care received. What varies among children is the quality of the attachment relationship developed towards the caregiver, i.e. the degree of trust the child has towards the caregiver’s emotional availability, ability to protect, comfort and soothe in distressing situations. According to attachment theory and empirical studies, individual differences in child attachment behaviors are primarily based on two types of factors. The first, proximal to the child, is quality of caregiving, while the second is made up of more distal variables likely to affect parental care, such as the parent’s own state of mind in relation to past attachment experiences.

Quality of caregiving

Parental sensitivity and attachment security

Child attachment pattern to parent is closely linked to the latter’s sensitivity, i.e. the parent’s capacity to detect, interpret, and respond appropriately and within a reasonable delay to the child’s needs and signals [5,6]. Based on interaction experiences with a sensitive parent, children learn, as early as 12 months of age, that their parental figure will help appease their distress in stressful situations [7]. Accordingly, by the end of their first year of life, children
will be inclined to seek parental proximity in stressful situations to regulate emotions and organize behaviors and, once comforted, to use their parental figure as a secure base from which to explore [6].

Alternatively, an insensitive parent, who misinterprets or fails to respond to child signals, encourages the development of insecure child attachment patterns. More specifically, following repeated experiences with a rejecting or distant parent, the child is more inclined to develop an insecure-avoidant attachment pattern, characterized by the minimization of distress signals and proximity-seeking behaviors in order to suppress the activation of negative emotions, which are difficult for the parent to manage. In response to more inconsistent parental behaviors (sometimes sensitive, sometimes insensitive), the child is likely to develop an insecure-ambivalent attachment pattern. This attachment pattern is characterized by an exaggeration of distress signals and proximity-seeking behaviors by the child towards the attachment figure in order to maximize chances of receiving parental comfort. However, resistant behaviors with respect to physical contact and parental comfort are also characteristic of this attachment pattern, resulting from the child’s anger towards the parents’ inconsistency. While the distress of avoidant and ambivalent children may not be adequately appeased, these children still manage to develop an attachment strategy that organizes behaviors and emotions towards the attachment figure in situations of stress.

Parental frightening/frightened behavior or extreme insensitivity and disorganized child attachment

While some children with an insecure attachment develop organized strategies to access the attachment figure when distressed, others show a breakdown of attachment strategies or fail to develop coherent approach strategies to gain access to the parent. In the presence of their attachment figure, these children exhibit confused and disoriented behaviors, and may even display frightened facial expressions or body postures. This particular group of children are identified as presenting insecure disorganized attachment behaviors. Recent studies have shown that mothers who demonstrate frightening or frightened behaviors during interactions with their child (e.g. intense withdrawal, hostility, momentary state of dissociation, facial expression of fear, hypervigilance, predatory behavior, sexualized or deferential) are likely to promote the development of insecure disorganized attachment behaviors in their children [8-10]. At the communication level, research has also showed that mothers of disorganized preschooler tend to utter frightening remarks and ridicule their child [11]. As Hesse [12] stated, children showing disorganized attachment behaviors are caught in an unsolvable paradox: their potential source of comfort is also their source of fear [13]. Disorganized children are therefore less likely to adequately explore their environment, for their attachment system is chronically activated by feelings of fear or apprehension caused by the presence of their attachment figure [14].

Disorganized attachment is the type of attachment most strongly linked in childhood to socio-emotional adaptation difficulties, cognitive deficits, psychopathology, low self-esteem, as well as psychopathology in adolescence and adulthood, including anxiety disorders, dissociation, and suicidal thoughts [3,15-20]. Studies have also showed that attachment
disorganization is maintained over time and evolves into a controlling strategy at the begin-
ning of school age, where children becomes aggressive and punitive towards their parent, or
on the contrary, answer the affective needs of the latter [21,22]. This parent-child role-
reversal phenomenon, commonly called ”parentification”, has often been observed in parent
and maltreated-child dyads [23].

Given that abusive and neglecting behaviors of maltreating parents are highly frightening
for children, it is not surprising to find that the majority of maltreated children exhibit
disorganized attachment behaviors, i.e., up to 86% are classified as insecure disorganized
children according to various studies [20,24]. In particular, a model by Main and Hesse [25]
propose that parents who have not been able to resolve past traumas from their own
childhood (abuse, loss) are likely to show short moments of dissociation, such as sudden
lapses with reality [26], altering their behavior when interacting with their child, which may
activate the child’s fear and attachment systems. In support of this hypothesis, a recent
study with a high-risk population has shown the mediating role of frightening parental
behaviors in the transmission of unresolved parent attachment representations (unresolved
loss or experience of abuse) to the child showing disorganized attachment behaviors[27]. A
second model, articulated by Lyons-Ruth et al. [8], suggests that it is the parent’s inability to
regulate the child’s physiological and emotional states that contributes to the child’s
development of a disorganized attachment. In other words, the inability to face potentially
traumatizing events hinders the parent’s capacity to regulate the child’s own physiological
experience of fear[28]. Hence, parents of disorganized children fail to repair situations that
elicit fear in their child. Instead of being sensitive following a frightening situation for the
child, these parents remain helpless or show hostility[8]. Through these extreme insensitive
behaviors, parents do not appease their child’s fear and attachment systems, but instead
actually exacerbate stress and become themselves an important source of fear for the child.

Parental state of mind with regards to attachment

Parental state of mind with regards to attachment refers to the representations of attachment
relationships and cognitive strategies parents have developed since childhood to organize
and understand present and past attachment experiences. Parental attachment state of mind
is an important precursor of child disorganized attachment as it is likely to interfere with
parental sensitivity. Notably, studies have demonstrated that mothers of children with a
secure attachment are more likely to discuss attachment experiences coherently and make
metacognitive judgements (e.g. reflective functioning) to reassess the significance and the
meaning of past childhood experiences. Conversely, mothers of children with insecure
disorganized attachment are unable to solve past traumatic experiences (e.g. abuse, loss) [29-
30]. Their discourse has shown to be incoherent when describing past traumatic events and
related emotions as well as sometimes disconnected from reality.

Abusive and neglectful parents are definitely at-risk of developing unresolved attachment
representations. Indeed, many of them have suffered sexual or physical abuse, or have been
abandoned and placed in foster homes in their childhood [1,31]. The personal background
of these parents, all too often filled with traumatic events, clearly puts them at risk of
developing unresolved attachment representations. When painful experiences remain unresolved, they continue to exert an (unconscious) influence on the parent’s psychological processes and behaviors, inhibiting the parent’s ability to properly perceive, interpret and adequately respond to the child’s needs and signals and thus contributing to the emergence and maintenance of insecure disorganized attachment behaviors in the child.

Several studies have demonstrated the mediating role of maternal sensitivity in the transmission of attachment from parent to child [32]. Another study of high-risk dyads identified the role of frightening parental behaviors in the transmission of disorganization [27]. Although studies having identified precursors to attachment disorganization in maltreated children are scarce, findings stemming from the field of attachment support the need to develop intervention protocols aiming improvements in parental sensitivity in order to promote attachment security and reduce attachment disorganization [33].

3. Attachment-based intervention strategies and protocols designed for maltreated children and their parents

Based on Bowlby’s [34] work and empirical studies on the intergenerational transmission of attachment, Berlin et al. [35]suggest that interventions inspired by attachment theory should be guided by three major therapeutic principals. The first two relate to intervention targets and the way change is likely to occur. Attachment-informed interventions are concerned with the promotion of child attachment security because it constitutes an important protective factor in the development and well-being of the child. Therefore, key targets should be empirically associated with child attachment. Whether target of intervention is to change parents’ representations of attachment or behaviors with the child, in both cases, emphasis is placed on the parent-child attachment which is used as the main intervention vehicle to promote child attachment security and optimize child development. The third principal refers to the intervention process in which a relationship of trust between parent and practitioner, the latter in the role of a secure base for the parent, is necessary to promote change.

For the past few years, several intervention protocols have been developed based on research in the area of parent-child relationships and attachment. Accordingly, two meta-analytic studies [33,36] have shown that short-term behavioral interventions aimed at changing parental behavior towards the child are more effective in improving parental sensitivity and child attachment security and reducing the incidence of disorganized attachment behaviors, than those aimed at changing parental representations or providing parental social support. However, none of the studies included in these meta-analyses exclusively examined maltreating parents and their children. Recently, three major attachment-based intervention protocols have emerged as effective for improving child attachment security of maltreated children. These protocols, which are either short-term (approximately 6-10 weeks) or long-term (approximately 20 weeks to 2 years), have been developed for mother-child dyads in infancy and preschool age, and usually involve weekly home visits. Long-term protocols aim mainly the modification of parents’
representational models, while short-term protocols focus on the modification of parental behaviors. In both models parent and child are present during intervention sessions, but in long-term protocols, parents may receive social support and participate in separate individual psychotherapy sessions.

Long-term protocols: The modification of representational models

Changing representational models refers to the modification of representations of the self, others, and attachment relationships developed by the parent throughout the years. The therapeutic objective is to bring the parent to understand how their representations of their child and of their relationship can be inadequate, distorted, and linked to insecure representations of past childhood relationships. According to Bowlby [34], the parent’s capacity to give new meaning to attachment representations is possible through open dialogue, in which the therapist supports the parent in the reinterpretation of past childhood experiences and the recognition that these experiences may affect the actual quality of caregiving towards the child. According to this model, it is this reflective process that promotes parental responsiveness, sensitivity, and availability, which in turns foster child attachment security and development.

The Infant/Child-Parent Psychotherapy (IPP or CPP)

The intervention model developed by Fraiberg et al. [37] with parents and infants, and later extended by Lieberman and Van Horn [38] to parents and preschoolers, is centered on the modification of representations. CPP has its origin in attachment theory, developmental psychopathology, and trauma theory [38]. The principal assumption of the IPP/CPP is that difficulties in the parent-child relationship (parental insensitive behaviors) are not only due to deficits in parenting knowledge and skills, but also, and most importantly, to insecure internal representational models developed by the parent in response to past childhood experiences. In particular, this intervention involves dyadic therapy sessions in which the therapist uses the child’s naturally occurring play behaviors with the parent as a way to translate the developmental and emotional meaning of the child’s behavior towards her parent and improve mother-child interactive quality [39,40]. This approach is mostly supportive, nondirective, and non-didactic, and includes developmental guidance based on the parent’s concerns, or other strategies like role modeling, emotional support or insight-oriented techniques to promote, through a trusting therapeutic relationship, the parent’s understanding and empathy towards the child [39,41].

Several studies have assessed the efficacy of CPP and IPP for maltreated children and their mothers. For example, the study conducted by Cicchetti et al. [41], noteworthy for its randomized control trial, compared the IPP to a Psychoeducational Parenting Intervention protocol in which mothers were giving didactic training in child development, parenting skills, coping strategies, and assistance in developing social networks in order to promote overall parenting skills. A randomized control trial, which involves random assignment of participants to an experimental group (receiving the intervention) and a control group (without intervention, or receiving an intervention having different targets and objectives from those of the experimental group), constitutes an extremely rigorous method that allows
one to conclude that observed effects are due to the intervention and not simply explained by the passage of time, or other confounding variables. In this study, both intervention protocols involved mothers and their child (mean age=13 months), and dyads were met at a frequency of one session per week during one year. These two protocols were compared to two other groups: 1) a community standard control group, which received the usual community services available to maltreating families, and 2) a normative comparison group, which consisted of non-maltreating, high socioeconomic risk families from the community.

Results of this study indicated a substantial increase in secure attachment and a substantial decrease in disorganized attachment for children in the IPP and Psychoeducational group compared to those in the community standard services and normative comparison groups. However, no intervention effect was observed regarding maternal sensitivity. Moreover, a second study with the same sample revealed significant differences in stress (cortisol) regulation trajectories over time as a function of intervention groups [42]. More specifically, children receiving community standard services showed more dysregulated trajectories of stress (cortisol) beginning mid-treatment, in comparison to children in the IPP and Psychoeducational Intervention groups, for whom trajectories remained similar to those of non-maltreated children across time. In another study, this team also examined the effect of CPP on preschool children’s (4 years old) representations of self, mother and relationships [43]. Using a randomized control trial, mother-child dyads were assigned to CPP, a Psychoeducational Parenting Intervention, or a community standard services group. Children in the CPP group showed significant decreases in negative representations of self and mother, as well as increases in their positive mother-child relationship expectations. Results by this research team thus support the efficacy of the IPP and CPP as successful long-term interventions in altering the predominantly insecure attachment organizations of infants and preschoolers from maltreating families, which is not the case with typical intervention services. These results point to the importance of providing services early on in the child’s development by working jointly with the parent-child dyad in order to promote child attachment security, remediate early developmental difficulties, and prevent the development of later psychopathology.

Other studies by Lieberman et al. [44] assessed the efficacy of the CPP with mothers and their preschooler (3-5 years old). Using a randomized control trial, these researchers provided dyads with a one-hour intervention session per week, for an average of 50 weeks. CPP, as a preschool version of the IPP, targeted changes in maladaptive behaviors through developmentally supported and appropriate interactions; and guided mother-child dyads in creating a joint narrative of traumatic events while working towards a resolution. The efficacy of the CPP on variables such as child behavior problems, post-traumatic stress symptoms, and presence of life stressors, was compared with a regular case management group which included individual psychotherapy with mothers. Study results showed a decrease in behavioral problems and post-traumatic stress symptoms for children in the CPP group in comparison to the case management group. At a 6-month follow-up of this sample, reductions in child behavior problem were maintained, showing that the effects of the CPP were stable across time [45]. According to the authors, CPP assisted parents in finding effective
ways to process their own traumatic stress, which in turn improved child emotion regulation and aided in the correction of child cognitive distortions. However, while this study presents excellent methodological qualities, it did not measure parental sensitivity or child attachment.

CPP has also proven its' feasibility and effectiveness in a community and clinical setting as part of the Florida’s infant and Young Child Mental Health Pilot Program designed for maltreating parents and their children (0-5 years old) [39]. Osofsky et al. [39] found improvements in parental sensitivity and responsiveness, and positive parental discipline. In addition, children showed improvements in positive affect, problem-solving or motor development, and mother-child dyads showed more reciprocal exchanges. This study did not however include a comparison or control group with random assignment.

Short-term protocols: Modification of parental behaviors

Changing parental behaviors refers to the modification of inadequate, insensitive, and frightening parental behavior into more sensitive caregiving behaviors. The therapeutic objective is therefore to bring parents to recognize, interpret, and properly respond to child distress and exploration signals. Video feedback has been considered as a valuable strategy to attain this objective. After filming a parent-child interaction, the therapist views video sequences with the parent in order to reinforce the latter’s positive and sensitive behaviors towards the child. Video feedback allows the parent to witness personal positive behaviors, appropriate parenting skills, and most importantly their positive effect on child behaviors. Also, by highlighting the parent’s strengths, this approach allows both the parent and the child to experience a new and pleasant relational exchange. According to this model, it is through these positive experiences that parents give new meaning to their relationship and increase their responsiveness, sensitivity, and availability towards their child, which in turn foster child attachment security and development. Although some parents may present limited strengths at the start of the intervention, emphasizing even simple positive behaviors such as saying “good job” to the child, can help the parent reconsider negative self-perceptions and discover hidden strengths, which can then lead to an increase in parental sensitivity. Once this is possible, positive behaviors may be consolidated and applied to other parent-child interactive situations [46].

To date, however, only two research teams have assessed short-term protocols based on attachment theory for maltreated children and their parents: the Moss, Dubois-Comtois, Cyr, Tarabulsy, St-Laurent, and Bernier (2011) research team [47] and the Bernard, Dozier, Bick, Lewis-Morrarty, Lindhiem, and Carlson (2012) research team [48].

The Attachment and Behavioral Catch-up protocol (ABC).

The ABC is a short-term attachment-based intervention consisting of 10-weekly home visits for which both the parent and the child are present. The main objective of the ABC [48] is to enhance sensitive, nurturing care among parents and to decrease frightening behaviors towards the child. While each session has a specific focus, the intervention aims mainly at helping parents become more nurturing towards their child especially when the latter
shows signs of distress. Parents are also encouraged to be sensitive to child needs despite the fact that some children may show rejecting behaviors (session 1 and 2). The practitioner’s goal is therefore to help parents reinterpret their child’s behavior, as well as their own personal issues, which may stem from past childhood attachment experiences and interfere with their present ability to provide sensitive care (session 7 and 8). In situations when the child is not in distress, parents are encouraged to support the child’s exploration and feelings of competency. This is accomplished by following the child’s lead with delight during moments of play (session 3 and 4). Parents are also asked to monitor their own overwhelming or intrusive behaviors towards their child during play activities (session 5 and 6). The practitioner thus uses structured activities to help parents enact particular skills. The practitioner also comments on parents’ behaviors during these activities, as well as through video-feedback sessions in order to reinforce their positive parental behaviors, strengths, and understanding of the session content. The last two sessions are used to consolidate gains acquired during the first 8 weeks of intervention. Finally, weekly homework is assigned so that parents can practice the use of their newly developed skills and record their own behaviors and those of their child throughout the week.

Bernard et al. [48] tested the efficacy of the ABC with parents and children (1-2 years old) reported to child protection services. Using a randomized control trial design, dyads were assigned to the ABC or a control intervention group, i.e., the Developmental Education for families (DEF), which aims the enhancement of cognitive and linguistic development of the child. Although child attachment was not assessed before the intervention, results from the 1-month post-intervention follow-up revealed a higher proportion of securely attached children and a lower proportion of disorganized children in the ABC group than in the DEF intervention group. These results support the efficacy of short-term attachment-based interventions for improving attachment security and decreasing later incidence of psychopathology in high-risk samples.

The Attachment Videofeedback Intervention (AVI)

The Attachment Video feedback Intervention, developed by Moss et al. [47] is a short-term attachment-based intervention for parents and their children consisting of 8-weekly home visits. The fundamental strategy of this approach is to focus on parental positive behavior to help the parent witness personal strengths and promote change. More specifically, during each intervention session of approximately 90 minutes, the practitioner reinforces the parent’s sensitive behavior through a video-feedback discussion with the parent following a filmed parent-child interactive sequence. At each session, activities and toys are proposed to the dyad according to child age and parental behaviors to be modified. For this 10 to 15-minute filmed activity, the parent is given only one instruction targeting specific aspects of parental sensitivity to be improved (e.g. follow your child’s lead, describe what your child is doing, describe your child’s feelings during the activity). For younger children, caregiving activities such as breastfeeding or bath time can be used as filmed interactions. Following this activity, a video-feedback discussion of approximately 20 minutes is conducted by the practitioner who watches the interaction sequence with the parent. At first, the practitioner intentionally stops the film during positive moments in order to reinforce the parent’s sensi-
tive behaviors towards the child, reciprocal interactions, and moments when the parent had a positive impact on the child. The practitioner also inquires about the parent’s feelings and thoughts during specific moments. The parent is also invited to share observations relating to the self and the child (see Table 1 for a description of a typical session). Intervention sessions also include a discussion with the parent regarding attachment related themes, emotion regulation, and concerns regarding the child (e.g. anger, discipline). While the first video feedback session emphasizes child behaviors (e.g. proximity seeking, exploration, meaning of distress signals), the focus is gradually shifted on to parents’ behaviors (e.g. interpretation of signals, adequate and nurturing responses).

Moss et al. [47] tested the efficacy of the AVI with parents and children (0-5 years old) reported to child protection services. Using a randomized control trial, dyads were either assigned to the AVI or to a case management control group receiving regular child protection services. Results revealed that parents exposed to the AVI were more sensitive after the intervention than those who received the usual services of the child protection services. Substantial increases in attachment security and decreases in attachment disorganization were also found for children of the AVI group. In addition, a decrease in behavior problems was observed for older children of the intervention group. Results of this study clearly support the value of short-term attachment-based interventions as a cost-effective means for improving child attachment security as well as for promoting sensitive caregiving behaviors in parents identified as neglectful and/or abusive, and at-risk of having their parental rights terminated.

Overall, attachment-based intervention protocols represent promising and valuable intervention strategies for maltreated children and their parents. Given the relatively limited number of studies on intervention strategies for maltreated children and their parents, determining whether one type of protocol is more effective than another is premature. It is also difficult to determine the distinct benefits of short versus long-term programs, or best-suited intervention target (parental representations and/or parental behaviors). We can only deplore the rarity of studies that have evaluated the medium to long-term effects of these interventions. Accordingly, greater research is needed in order to examine whether the beneficial effects of these seemingly promising interventions are maintained over time.

Studies must also consider the potential influence of variables that can moderate the efficacy of intervention protocols (e.g. parental mental health, parental attachment state of mind, domestic violence). For example, some variables may influence the ability of some parents and children to benefit from specific types of intervention. In particular, studies have shown that mothers who have experienced trauma during their own childhood or have unresolved attachment representations in response to loss or past experiences of physical or sexual abuse, do not profit from a behaviourally-driven attachment-based intervention aiming the improvement of parental sensitivity [49,50]. Perhaps, sensitivity is more likely to improve if parents are able to witness their inappropriate, and sometimes frightening, behaviors in relation to their child. This hypothesis is supported by results from the Bernard et al. [48] study in which sessions specifically aiming the identification of parental frightening behaviors were
integrated into the intervention protocol, and for which child attachment disorganization decreased and child attachment security improved. However, this study did not examined intervention effects on parental sensitivity. In addition, while the Moss and al. study [47] did not specifically target parental frightening behaviors during video-feedback sessions, they attributed part of their success to the training received by clinicians working with the families. Not only were clinicians trained by attachment researchers (experts) in the recognition of children’s distress signals and parental sensitive/insensitive behaviors, but they were also trained in the identification of parental frightening, extremely intrusive, and helpless behaviors. As suggested by Bakermans-Kranenburg et al. [33], to reduce child disorganization and its correlates, interventions should focus on both improving parental sensitivity and reducing parental frightening behaviors.

The clinician as a secure base for the parent

According to Bowlby [34], in order for intervention strategies to be effective, it is essential that the therapist be perceived as a secure attachment figure by the parent. By listening, being available and consistent, the therapist can be viewed as a sensitive person who can help the parent find new meaning to past and current attachment representations or behaviors towards the child. By accompanying the parent in the re-interpretation of childhood experiences and by having the parent discover personal strengths, the therapist helps the parent experience a significant and gratifying relationship with another adult. The parent can then refer to this new sensitive attachment figure to better interpret and appease their own distress as well as that of their child. The practitioner’s empathy and ability to proceed with therapy in a progressive manner, respecting the parent’s rhythm, are key elements for the development of a relationship of trust and the promotion of changes in the parent-child relationship. The more the parent learns to rely on this relationship of trust, the more the parent learns to become his or her own security base.

Beyond these qualities, practitioner training and supervision are essential aspects of successful intervention protocols with parents. Research has shown that clinicians who intend to apply intervention strategies based on the principles of attachment theory must acquire in-depth knowledge of the theory and of child developmental processes, and must develop excellent observational skills with respect to parent-child interactions [51]. For example, in the Moss et al. [47] study, the training, which included the presentation of multiple video case-studies, focused on the teaching of attachment theory concepts as well as associated intervention techniques. In addition, the appropriate attitudes to be adopted by clinicians partaking in the intervention protocol were clearly written out in the intervention manual received by clinicians during the training. Moreover, clinicians learned to be flexible and to make appropriate judgments in order to adequately adjust themselves to the particular needs of each family, the age of the child, and the complex problems surrounding families. In order to ensure the integrity of the intervention, regular supervision was also offered to clinicians. Supervision was carried out by a psychologist, whom also was an expert in attachment and the application of the AVI. As indicated by Olds [52] and Goodson, Layzer, St-Pierre, Bernstein, and Lopez [53], the absence of extensive training makes prevention or intervention efforts ineffective, and can even exacerbate the difficulties already present in the parent.
## Table 1. Progress of an Attachment Video feedback Intervention session according to a protocol by Moss and Colleagues

<table>
<thead>
<tr>
<th>Phases</th>
<th>Duration</th>
<th>Relational intervention session</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arrival at the home</td>
<td>10 min.</td>
<td>Brief review of events which affected the parent and child since the last encounter</td>
</tr>
<tr>
<td>2. <strong>Discussion</strong></td>
<td>20 min.</td>
<td>Theme chosen by the parent</td>
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<tr>
<td></td>
<td></td>
<td>Theme related to parent-child relationship, emotional regulation or parent's preoccupations concerning parent-child relationship (e.g. bedtime, discipline, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Allows practitioner to develop relationship of trust with parent and helps the latter to make links between her present parental preoccupations and how she interacts with her child</td>
</tr>
<tr>
<td>3. <strong>Filmed playtime</strong></td>
<td>10-15 min.</td>
<td>Parent-child interaction filmed during playtime activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Activity and toys supplied by practitioner in accordance to the child's age and dyadic aspects to be worked at (e.g. physical proximity, child's need to explore, interpreting child's distress signals, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A single instruction is given to the parent (e.g. to act as usual, follow her child's rhythm, imitate her child, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No intervention is made during interaction; the practitioner is merely an observer</td>
</tr>
<tr>
<td>4. <strong>Video feedback</strong></td>
<td>20 min.</td>
<td>Video feedback done by practitioner who views the interaction sequence with the parent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practitioner asks parent how she feels and what she notices of herself and her child</td>
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<tr>
<td></td>
<td></td>
<td>Practitioner intentionally pauses at positive moments where he reinforces parental sensitivity, reciprocity and moments when the parent has a positive impact on her child</td>
</tr>
<tr>
<td>5. <strong>End of session</strong></td>
<td>10 min.</td>
<td>Homework: Practitioner encourages the parent to reproduce an activity with her child during the week</td>
</tr>
</tbody>
</table>
Attachment Theory in the Assessment and Promotion of Parental Competency in Child Protection Cases

Figure 1. Development of the maltreated child and attachment-based intervention targets to promote child development

Figure 1 presents the intergenerational transmission of child attachment disorganization and the compromised development of maltreated children. It also illustrates how the different therapeutic principals can guide and act as important elements in the process of change and modification of the parent-child relationship.

4. Applying attachment-based intervention in a new context: The assessment of parental capacity in child protection cases

While the contribution of attachment theory in the assessment of parental capacity in child protection cases has been proposed by many researchers [54-57], key concepts of this theory have rarely been integrated into assessment protocols. This is surprising given that attachment theory is closely linked to the concept of parental capacity, i.e., the parent’s capacity to care for their child, to protect from potential threats, and to offer an environment that promotes child emotional, cognitive, and physical development [58]. A competent parent, in terms of parenting capacity, is able to adapt to the inherent developmental changes of their child: not only is the parent sufficiently competent in responding to the child’s needs while adjusting to the child’s changing developmental capacities, but the parent is also able to find solutions to the daily struggles encountered as a parent [54,58]. It is through a high-quality relationship, in which the parent demonstrates interest, respect, and sensitivity towards the child that a parent’s competency becomes apparent [59]. The concept of parental competency is therefore closely related to the concept of parental sensitivity, as defined by attachment theory.

The assessment of parental capacity in cases of children reported for abuse or neglect is particularly important, in that it often informs the court of the child’s best interest. Specifically, it
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plays a role in whether the child should be removed or not from his family of origin, and if removed, the type of placement suggested for that particular child. This assessment is subsequently used by clinicians as a way to determine the most appropriate intervention plan for the family. Therefore, the assessment of parental capacity plays a major role in the life of a child. Given the seriousness of the decisions made following these assessments, it is important that they be carried out by carefully trained professional, for whom personal biases do not interfere with the objectivity of the evaluation process. Many, concerned with the quality of parental capacity assessments, have suggested guidelines for evaluators. For example, the American Psychological Association (APA) suggested guidelines regarding the necessary professional competencies required for the evaluation process, as well as the ethical considerations to respect during assessments of parental capacities [60]. Other researchers and clinicians have highlighted key elements to consider in such evaluations [54,61-64]. In particular, Budd [61,62] carefully outlined a list of principles that should guide such evaluations.

The first principle proposed by Budd [61,62] is that assessments of parental capacity should center on the parent’s limitations and strengths, as well as on the quality of the parent-child relationship. This principal rests on the idea that parental capacity should be understood in response to child needs, that is, how the parent’s limitations and capabilities may be potential risk or protection factors for the child, and how they may influence the parent’s ability to profit from clinical services. Indeed, as mentioned by the APA [60], the evaluator must not only focus on the parent’s actual capacity, but also assess the parent’s potential. This is in line with Haynes’[65]view, who describes core features in the assessment of parental competency as parental: 1) capacity to care (ex: parental sensitivity, emotional commitment, empathy); 2) capacity to protect (ex: safe environment, supervision, tolerance to frustration, educational practices and adequate discipline); and 3) capacity to change (ex: intellectual limits and strengths, severity of psychopathological symptoms, insights/reflective functioning, social and family support).

The second principal emphasizes the importance of favoring a functional approach in the evaluation of parental capacity, as to focus on behaviors and skills towards the child in everyday performance and daily routines. As indicated by White [58], in an extensive summary pertaining to research relating to parental capacity, it is the quality of the parent’s immediate and daily behaviors towards the child that influences the child’s overall well-being and development.

The third principal implies the use of a minimal parenting standard to the assessment of parental capacity. Indeed, many authors [54,61,66] have suggested that parents facing adversity should not be compared to parents presenting optimal abilities. For parents in child protection cases, meeting the minimal requirements needed to ensure child physical and emotional security should be considered sufficient and acceptable. For example, parents who experience symptoms of depression or intellectual deficits may be limited in their ability to offer their child a safe and secure emotional environment. Nevertheless, the impact of these limitations may be reduced if the parent demonstrates insight, the ability to recognize personal limits, or the capacity to benefit from friends/family social support or a clinical treatment. Although this parent’s functioning may be affected by risk factors, he or she should be considered as meeting the minimal standards required for adequate parental
capacity if parental behaviors and abilities are sufficiently adequate during parent-child interaction. Accordingly, parent-child interactive quality should be regarded as a central feature in parenting assessment capacity.

Despite these aforementioned guidelines, in practice, assessment reports of parental capacity often remain incomplete and follow a minimalist and low-quality protocol. Budd et al. [67] examined 170 parenting capacity assessment reports for child protection cases. Researchers identified numerous flaws that put into question the validity of these reports. In particular, results showed an over-simplification of conclusions, often based on premature evaluations, and following only one meeting with the parent outside the family home. Moreover, researchers found a lack of crucial information pertaining to the child and the quality of parent-child relationship. More information was provided on parental limitations than on parental strengths. In particular, direct observations of child and parent-child interaction were limited and assessments generally relied on questionnaires and interviews with the parents.

Harnett [68] also raises the important point that parental capacity is generally evaluated under very short time frames. This suggests that parents’ capacity to change is not really evaluated according to longitudinal observations of parents’ interactive behavior with the child, but instead is generally estimated following short meetings with the parent. In order to assess parents’ capacity to change, parents need to be able to demonstrate their ability to question themselves and take responsibility for their actions, but mostly they need to show their capacity to benefit from an intervention and change. Certainly, these abilities represent important indicators of the parent’s capacity to change. It has been suggested to assess parental competency from the perspective of the parent’s ability to build parenting skills, while clinical workers aim at promoting positive parenting behaviors [68,69]. Accordingly, Harnett [68] proposes applying an intervention for improving the parent-child relationship as a way to evaluate parental capacity to change. However, to date, no such protocol, including an intervention centered on parent-child interaction, has been submitted to a scientific evaluation. The challenges associated with the assessment of parental capacity highlight the need to develop standardized intervention strategies that could accurately assess parental capacity to change. Such a procedure would lead to more accurate and useful evaluation reports, allowing for better decision making in the court justice system and more adaptive intervention plans for the child and family.

The parental capacity assessment protocol at the Child Protection Services of Montreal-University-Institute

Recently, the Child Protection Services of Montreal-University Institute (CPS-UI) have launched the Clinic for the assessment and intervention of young children and their families, for children aged 0 to 5 and their parents who have been reported for child maltreatment and for whom a parental capacity evaluation is required. In collaboration with this clinic, we developed a specialized protocol for the assessment of parental capacity [70,71]. The innovative aspect of this protocol is that we integrated into the evaluation procedure a short-term
attachment-based intervention\[47\] as a way to assess parental capacity to change. This attachment-based protocol is currently under scientific investigation by our research team.

We believe that an attachment-based approach is particularly appropriate for assessing parental capacity in child protection cases. Given that an assessment of parental capacity requires the description of parental deficits and limitations in the final evaluation report, as well as during court hearings, evaluators must be able to quickly put into evidence with the parent their inappropriate behaviors during the sessions. To identify these inappropriate behaviors within a framework that highlights the positive side of the parent can: 1) increase the parent’s feelings of trust towards the evaluator and the ability to commit in the evaluation process, and 2) orient intervention efforts on the reinforcement of the parent’s self-recognition and repair of inappropriate behaviors, while making use of the parent’s personal strengths. Through video-feedback parents may witness their own frightening-frightened behaviors with their child, and then begin a process of change and reparation in which they increasingly learn to take responsibility for their actions.

The parental capacity assessment protocol

The parental capacity assessment protocol implemented at the clinic of the CPS-UI consists, on average, of 5 meeting of approximately 3 hours each, carried out during a 4 to 8 week period. A typical evaluation meeting includes 4 components.

Component 1: At each meeting, the evaluator observes parent-child interactions during daily activities and routines.

Component 2: A discussion period is scheduled with the parent to assess the different factors potentially explaining the parent’s behaviors and ability to recognize his or her own difficulties. This discussion is based on an adaptation \[64\] of the parental competence assessment guide from Steinhauer \[63\], which allows for the collection of various information regarding the parent’s social and familial context, the health and development of the child, the impulse control of the parent, and the parent’s history of prior use of clinical services. This guide also allows the evaluator to obtain information regarding parental practices (e.g. educational methods, discipline, care for basic needs) and the parent-child relationship by orienting evaluators observations on child attachment behaviors and parental sensitivity in response to the child needs during daily activities.

Component 3: In addition to gathering information regarding the parent’s ability to care and protect the child, an intervention protocol is used as a way to assess parental capacity to change. Here, we have used the attachment-based strategy developed by Moss et al. \[47\], to which we have added a focus on parental frightening or inappropriate behaviors. Therefore, this adapted version of the AVI protocol not only aims at reinforcing, via video-feedback of parent-child interactions, 1) the parent’s sensitive behaviors (e.g. identify and interpret child distress signals, answering them in an acceptable delay), but also 2) the recognition by the parent of his own frightening behaviors and the repair of these behaviors through sensitive behaviors.
Component 4: The last component is conducted at the end of the evaluation process. It consists of the presentation of the strengths and limitations to the parent, and the writing of the evaluation report.

Preliminary results: The adapted AVI protocol as an effective tool for improving the quality of parent-child interactions and for assessing parent’s capacity to change

In the scope of this research project, we have tried to answer two main objectives. The first objective concerned the efficacy of the intervention as a tool for improving parental sensitivity. The second objective was to verify whether the parental capacity assessment protocol, which included an intervention centered on parent-child interaction, was useful for assessing parents’ capacity to change.

Preliminary statistical analyses were conducted with a sub-sample of participants. This sub-sample consisted of 23 families, including 12 that were evaluated according to the AVI protocol as the activation technique for assessing parental capacity to change, and 13 were evaluated according to a second protocol, just as intensive, but relying on the standard activation techniques used by psycho-educators of the CPS-UI (e.g. modeling). The children (55% boys) had an average age of 18.21 months (S.D. = 18.96, range = 1 to 60 months). The majority of children were reported for neglect, although half of the sample were also victims of physical abuse. An important number of parents also experienced a troubled past including maltreatment or out-of-home placements. At a socio-demographic level, study participants represented a very high-risk sample with more than half not having a high school diploma and living below the poverty threshold.

Using a randomized clinical control trial design, we examined changes in the quality of parent-child interactions during a snack time procedure [19]. More specifically, we observed parents’ capacity to be sensitive to child needs and signals and to take on an appropriate parental role, as well as the ability of each member of the dyad to openly and freely express emotions and intentions. In support of our hypothesis, results showed that dyads involved in the AVI assessment protocol demonstrated significant improvements in interactive quality, with mothers showing higher levels of sensitivity and dyads showing more reciprocal and synchronized interactions [71]. On average, 6 sessions of video-feedback were offered to participants.

Moreover, at the end of each parental capacity assessment, we questioned evaluators from both protocols regarding the changes they observed in the parent-child dyads. We also asked about the usefulness of our protocol for the assessment of parental capacity. Results of statistical analyses revealed that, according to evaluators, parents’ level of commitment facilitated parents’ capacity to learn new strategies, regardless of the complexity of the case (difficulties met during the evaluation process, the severity of abuse suffered by the child, etc). In addition, results revealed that evaluators of the AVI assessment protocol observed significantly more changes within the family, resulting in improved parental sensitivity, greater secure or organized child attachment, and improved overall child development [72]. These results support the efficacy of the AVI as a tool for promoting quality of parent-child interactions of families reported to CPS.
Also, our results point to the usefulness of the AVI intervention as a valuable tool for assessing parental capacity to change. Given that the potential for parents to change is more likely to result from the application of the AVI protocol than as a result of the “psycho-educational’ protocol, and that evaluators from the AVI are more likely to observe this improvement, we conclude that the AVI strategy is a valuable tool for accurately assessing parents’ capacity to change and show greater sensitivity towards their child.

5. Conclusion

The work stemming from attachment theory offers a critical theoretical framework that helps identify 1) parental behaviors that influence the quality of the parent-child interaction and the development of the child, and 2) effective intervention strategies to promote sensitive behaviors, which are at the root of a secure child attachment pattern. Taken as a whole, the different attachment-based intervention protocols, whether short or long-term, are particularly promising. While the assessment of some of these protocols has not relied on randomized control trials, they all have been subjected to a scientific investigation. As a result, all evaluated protocols with maltreated children and their parents have supported the beneficial outcomes of this type of intervention strategy on the quality of the parent-child relationship and on the various aspects of the child’s development: increase in parental sensitivity, child attachment security, and decrease in child disorganized attachment; greater development or adaptation of the child (e.g. increase in motor development, decrease in child’s negative representations of the self and of the maternal figure, decrease in behavioral problems and of symptoms of post-traumatic stress). In summary, the various attachment-based protocols show impressive success rates for vulnerable populations and are therefore important practices to adopt with respect to maltreated and at-risk children. It is important to note, however, that the continuous training and supervision of the evaluators, including extensive understanding of child developmental processes and observation techniques for relational patterns are central in maintaining the integrity and successfulness of the intervention.

Following the preliminary scientific evaluation of the adapted AVI protocol for the assessment of parental capacity at the CPS-UI clinic, we conclude that the contribution of attachment theory to the assessment of parental capacity in child protection cases is considerable and significant. Not only did this intervention strategy allowed for the improvement of parental sensitivity and reciprocity during parent-child interactions of a high-risk vulnerable population, but it also enhanced quality of assessments conducted by evaluators of the CPS, particularly with respect to the evaluation of parents’ capacity to show potential for change. This clinical improvement is notable, considering the impact of the decisions made following these evaluation. It is clear that a better understanding of the capacity for parents to change during the evaluation process enables family services that are better suited to answer the specific needs of parents and their child. Nevertheless, to date, these preliminary results offer only a partial understanding of the effects of an attachment-based intervention on the quality of a parental capacity assessment. Future analyses will be conducted with a larger number of participants and will examine the role of other variables that could potentially positively or negatively affect outcomes. Finally, more research is needed to corroborate the results stemming from our project.
By helping parents, often perceived as inadequate, identify their strengths, practitioners guide parents in the recognition of abilities and qualities, despite the fact that these may initially be limited or scarce. Working with a parent in such a context can only facilitate the parent’s willingness to acknowledge deficits and inappropriate/frightening behaviors towards the child, and help to promote the development of more sensitive behaviors. Also, attachment-based protocols can facilitate parents’ collaboration with child protective services. In summary, the use of an intervention protocol based on attachment-theory with parents and children reported for maltreatment, whether for assessing parental capacity, or for intervention purposes, is clearly a promising avenue.

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