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### Development of a Video-feedback Intervention to promote Positive Parenting for Children with Autism (VIPP-AUTI)

Irina E. Poslowsky<sup>a</sup>, Fabienne B.A. Naber<sup>bc</sup>, Marian J. Bakermans-Kranenburg<sup>b</sup>, Maretha V. De Jonge<sup>a</sup>, Herman Van Engeland<sup>a</sup> & Marinus H. Van IJzendoorn<sup>b</sup>

<sup>a</sup> Division of Neuroscience, Brain Center Rudolf Magnus, University Medical Center Utrecht, Utrecht, The Netherlands

<sup>b</sup> Center of Child and Family Studies, Leiden University, Leiden, The Netherlands

<sup>c</sup> School of Pedagogical and Educational Sciences, Erasmus University, Rotterdam, The Netherlands

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## Development of a Video-feedback Intervention to promote Positive Parenting for Children with Autism (VIPP-AUTI)

Irina E. Poslawsky<sup>a\*</sup>, Fabienne B.A. Naber<sup>b,c</sup>, Marian J. Bakermans-Kranenburg<sup>b</sup>,  
Maretha V. De Jonge<sup>a</sup>, Herman Van Engeland<sup>a</sup> and Marinus H. Van IJzendoorn<sup>b</sup>

<sup>a</sup>Division of Neuroscience, Brain Center Rudolf Magnus, University Medical Center Utrecht, Utrecht, The Netherlands; <sup>b</sup>Center of Child and Family Studies, Leiden University, Leiden, The Netherlands; <sup>c</sup>School of Pedagogical and Educational Sciences, Erasmus University, Rotterdam, The Netherlands

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In this paper we describe the development and content of Video-feedback Intervention to promote Positive Parenting for Children with Autism (VIPP-AUTI). VIPP-AUTI is an adapted version of the evidence-based intervention VIPP. The lack of social responsiveness in children with autism often lowers the quality of the parent–child interaction. A wide range of early interventions exist to cope with the disorder. The majority of early interventions for children with autism focus on their deficits of (social) skills, but the number of evidence-based interventions to improve early parent–child interaction patterns is limited. The aim of VIPP-AUTI is to enhance parental sensitivity to children’s autistic characteristics, in order to improve child developmental outcome by increased parental support.

**Keywords:** autism; sensitive parenting; parent–child interaction; early intervention; video-feedback

### Introduction

Video-feedback to promote Positive Parenting (VIPP) is an evidence-based intervention protocol, rooted in attachment theory and research (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2008) originally developed for children at risk for insecure attachment. Over the past 20 years, VIPP has been adapted and validated to be used in various (non-clinical and clinical) families, settings, and cultures (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2009). For example, VIPP with an additional focus on sensitive discipline (VIPP-SD) supports parents to interact with their child not only in a sensitive way, but also to cope with difficult, oppositional child behavior (Van Zeijl et al., 2006). In adapting the VIPP for children with autism, in the range from infancy to preschool age, we complemented the original program with key ingredients for understanding and responding appropriately to symptoms of autism in parent–child interactions.

### Autism and early interventions

Autism or Autism Spectrum Disorders (ASD) is a neurodevelopmental disorder characterized by impairments of social interaction and communication, combined with repetitive or restricted behaviors and interests (American Psychiatric Association, 2013). Autism is a chronic disorder. Currently, the prevalence is estimated at 1% (Baird et al., 2006;

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\*Corresponding author. Email: [I.E.Uitewaal@umcutrecht.nl](mailto:I.E.Uitewaal@umcutrecht.nl)

Fombonne, 2009; Rice, 2011), though recently higher rates of ASD up to 2% have been discussed (Charman, 2011; Kim et al., 2011; Lord, 2011). More boys than girls are affected, with a sex ratio of about four to one. Comorbidity with intellectual disability ranges from 12% to 68% (Chakrabarti & Fombonne, 2005).

Parenting young children with autism did not show large differences compared to parenting in other clinical and nonclinical groups regarding parental sensitivity to children's needs (Van IJzendoorn et al., 2007) and perceived burden in child rearing (Rutgers et al., 2007). However, the challenge for parents to interpret their child's attachment needs and signals may be more difficult (Naber et al., 2007; Rutgers et al., 2007) because of the child's deficits in reciprocal interaction (Doussard-Roosevelt, Joe, Bazhenova, & Porges, 2003; Gervais et al., 2004; Kasari, Sigman, Mundy, & Yirmiya, 1988). In studies involving older children with autism, their parents reported more stress than parents of typically developing children or children with mental retardation, resulting in higher levels of depression, anxiety, somatic complaints, family dysfunction and burnout (Benjak, Vuletić Mavrinac, & Pavić Šimetin, 2009; Eisenhower, Baker, & Blacher, 2005; Higgins, Bailey, & Pearce, 2005; Weiss, 2002). Therefore, early support for parents is needed.

The aims of early intervention are to reduce ASD symptom severity, to prevent secondary (behavioral) problems, and to support family functioning (e.g., Van Engeland & Buitelaar, 2009). A wide range of interventions are available, using psychosocial, pharmacological and other approaches but well-designed randomized control studies are limited (Green et al., 2006; Ospina et al., 2008; Rogers & Vismara, 2008). An example in clinical practice is the use of the "Floor time" method of Wieder and Greenspan; a stepwise approach in spontaneous play, child-led interaction in order to promote higher levels of symbolic play in children with autism (Wieder & Greenspan, 2003). For young children with ASD, comprehensive behavioral and educational intervention programs including language training are recommended (New York State Department of Health Clinical Practice Guideline, 1999). The most well-researched and effective early interventions are based on applied behavior analysis (ABA; see meta-analyses of Makrygianni & Reed, 2010; Peters-Scheffer, Didden, Korzilius, & Sturmey, 2011; Virués-Ortega 2010). Children in ABA-based groups show significantly better outcomes on cognition, language and adaptation than control groups. ABA interventions are based on operant conditioning approaches, which comprises reinforcement control as the basis for behavior change, i.e., positive reinforcement will continue behavior, while ignoring or punishment will stop behavior (Erba, 2000). For toddlers with ASD, the Early Start Denver Model (ESDM) demonstrated improvements of the child's cognitive and language skills, adaptive behavior and ASD diagnosis (Dawson et al., 2010). The ESDM is a comprehensive early intervention program, combining ABA with developmental and relationship-based approaches. Improvements in child outcome were associated with normalized patterns of brain activity (Dawson et al., 2012). A powerful factor in interventions for young children could be parent-mediation. Green et al. (2010) reported positive effects of a parent-mediated communication-focused intervention on parent's synchronous responses and child communication initiations. This intervention included the use of video-feedback (Green et al., 2010).

In sum, parent-implemented comprehensive interventions, including ABA, can improve the child's social communication behavior and parent-child interaction (McConachie & Diggle, 2007; Oono, Honey, & McConachie, 2013). However, such comprehensive programs are expensive and the intensity of ABA programs has been

found to be a risk for increasing family stress, especially when parents are heavily involved (Schwichtenberg & Pohlmann, 2007).

### The VIPP-AUTI program

In a collaborative project of the Center for Child and Family Studies, Leiden University and the University Medical Center Utrecht, we designed the intervention program Video-feedback to promote Positive Parenting for Children with Autism (VIPP-AUTI). We adapted the original VIPP and elements of VIPP-Sensitive Discipline (SD) (Juffer et al., 2008; Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2014) to the specific needs in families of a young child with autism using knowledge of the manifest core symptoms of ASD (stereotypical or rigid behavior, deficits in early development of communication and play), together with clinical experience and knowledge of attachment-based interventions.

The original VIPP programs comprise a short-term interaction-focused intervention at home, using recent videotaped parent–child interactions in daily situations such as playing together and during mealtimes (Juffer et al., 2008). The intervener makes a special effort not to interfere during filming to ensure that a natural parent–child interaction is observed, including the child’s entire behavioral repertoire. Intervention in a natural environment is recommended to facilitate the social interactions of young children with autism (McConnell, 2002; Wallace & Rogers, 2010). The aim of VIPP-AUTI is to reduce the child’s symptomatology by enhancing parental sensitivity to the autistic traits of the child. VIPP-AUTI is directed at the primary caregiver of the child (commonly mother or father), to whom we refer as a “parent”. Showing parents their own interaction patterns may enhance their insight into the specific individual needs of the child with autism, and result in more optimal parental responses.

The VIPP-AUTI protocol consists of five sessions, four of which are devoted to the VIPP themes (Attachment and Exploration, “Speaking for the child”, “Sensitivity chain”, and Sharing emotions) with an additional autism-related component for each session. The fifth session is a booster session. The additional themes for autism are (1) mastery motivation and play, (2) joint attention, (3) daily problems and routine, including VIPP-SD themes (positive reinforcement and, if applicable, “sensitive time-out”), and (4) emotions and (stereotypical) behavior (see Table 1). These additional themes focus on pivotal skills which show deviant development in children with autism (play and joint attention), behavior that may hinder the overall development (stereotypical behavior) and challenging behavior that parents describe (daily problems and routine). By discussing these themes based on specific video-fragments, the parents will learn to

Table 1. Themes of the VIPP-AUTI program.

	<i>Sensitivity themes of VIPP</i>	<i>Adapted themes of autism</i>
Session 1	Attachment and Exploration	Mastery motivation and Play
Session 2	“Speaking for the child”	Joint attention
Session 3	“Sensitivity chain”	Daily problems and routine
Session 4	Sharing emotions	Emotions and (stereotypical) behavior
Session 5	Booster session	Booster session

Note: VIPP-AUTI: Video-feedback Intervention to promote Positive Parenting adapted to Autism.

“read” the signals of their child and will learn about the child’s strengths and weaknesses.

***Session 1: Attachment and exploration, mastery motivation and play***

The theme of the first session of the original VIPP is exploration versus attachment behavior. During this session the focus is on showing the difference between the child’s contact-seeking behavior and play, and on explaining the differential responses needed from the parent (Juffer et al., 2008). Recognizing the difference between the child’s seeking proximity and exploring activities can be considered a first step towards parental sensitivity during play. The intervener may suggest that the parent follows the child’s lead in play behavior to gain contact and attention. Once engagement is established, the parent can try to move the child’s interest on to other, more varied or advanced, play behavior. The parent may also respond explicitly to the child’s (subtle) signals of proximity/contact seeking, e.g., looking back when the child looks at the parent or commenting positively when the child prefers to play close to the parent.

In this session, video clips show the parent and child playing together with toys for pretend play, constructive play, and social play. In our study we included, in order: (1) a doll and tea set; (2) bricks for building; and (3) a book. Before starting with a new activity, the parent and the child are asked to clear up the toys from the previous activity.

Using these videotaped play interactions and clean up fragments, the video-feedback focuses on the child’s exploration and attachment behavior as well as the child’s autistic traits in motivation and play skills. Positive, successful interaction fragments are highlighted to demonstrate the child’s orientation to the parent. Moreover typical play behaviors of the individual child are reviewed. The often limited or restricted play repertoire of children with autism is a challenge to many parents (Naber et al., 2008). Video-feedback aims at increasing the parents’ acceptance of the child’s play behavior, and their support of the child’s play, as well as at enhancing parents’ recognition and accurate interpretation of the child’s subtle signals to seek contact.

***Vignette session 1: Attachment and exploration, mastery motivation and play***

Lisa is a 3-year-old girl with autism and severe delays in cognitive and speech / language development.

The first filmed interactive segment used for video feedback showed parent and child playing together with a doll and tea set. After one minute, Lisa looked at her mother, approached her, and started playing with a pillow, sitting next to her mother. She listened when her mother asked her to join in the tea ceremony, but she preferred to play on her own. This fragment showed the way Lisa was first exploring, then seeking contact (sitting next to her mother, while watching and listening) and explored again (with her own toy). A topic of discussion was Lisa’s brief attention span for new toys. The mother told the intervener that Lisa was mostly interested in the same, familiar toys. However, her mother was surprised to see how Lisa monitored and approached her. Perhaps because Lisa was preverbal, her mother had thought her daughter’s interest in and quality of interaction was lower than she displayed on the film clips. The intervener discussed how the mother could improve her contact with Lisa by joining her play behavior and following Lisa’s lead.

**Session 2: “Speaking for the child” and joint attention**

In the original VIPP, the theme of the second session is “speaking for the child”. The intervener comments on video fragments by verbalizing the child’s nonverbal signals in doing, thinking, trying, etc., and invites the parent to join in to speak for the child. Accurate perception of children’s signals by verbalizing their facial expressions and non-verbal cues shown on the video is promoted. In children with autism, the non-verbal cues can be rare or subtle, and video-feedback offers the opportunity to view and *review* brief fragments. Joint attention, which is one of the earliest signs of social interaction (Mundy, Card, & Fox, 2000), refers to the coordination of the child’s visual attention with the visual attention of another person; it starts to develop before the age of six months (Mundy, Sullivan, & Mastergeorge, 2009). The development of joint attention is strongly related to the quality of the interaction between children with autism and their parents, including parental sensitive caregiving (Bruinsma, Koegel, & Koegel, 2004; Naber et al., 2007; Siller & Sigman, 2002).

Three video fragments of three minutes each are used in this session. First, the child plays alone with a toy camera, with the parent close. The parent is instructed to join in only at the child’s initiative. In the second fragment, parent and child build a tower of blocks. The third fragment involves an unexpected event. While the child explores a toy, the intervener unexpectedly sounds a peep behind her back, and repeats it several times before the source of the peep (a little bath duck) is shown to the child. Reviewing the video fragments, the intervener provides “subtitles” (by speaking for the child) for the child’s play behavior and joint attention signals, including signals of attachment and exploration that were highlighted in the previous session. The parent is invited to join in the subtitling of the child’s behaviors. If applicable, limited eye contact of the child is discussed in the context of alternative communication strategies, such as using a glove puppet. Finally, general language development is discussed. The intervener encourages the parent to speak as much as possible with their child, even – or especially – when the child does not respond verbally. The importance of guiding the child’s behavior with comments (McDuffie, Yoder, & Stone, 2006), explanation and compliments is emphasized.

***Vignette session 2: Speaking for the child, joint attention***

Robert is a 4-year-old boy with autism spectrum and below average cognitive and speech/language functioning.

Robert and his mother were building a tower in the shape of a clown. The mother took the blocks from the box, which Robert was first strongly opposed to. After a few seconds though, Robert became curious, especially when his mother showed him a block. The intervener pointed to Robert’s joint attention behavior that took the form of looking together at the same object. Robert needed time to get used to the new toy. His mother showed patience and invited Robert repeatedly to join in, by asking him how the tower worked. Gradually, Robert became more at ease and accepted the building project. He pointed to a block to start building the tower. Again, this fragment showed joint attention. Robert understood the game and he built the tower perfectly. At the end Robert protested about placing the last block on the tower, because its shape differed from the shape of the other blocks. He needed more time to get used to unexpected objects and situations. By inviting the mother to speak for her child, Robert’s joint attention behavior became more obvious.

### ***Session 3: “Sensitivity chain”, daily problems and routine***

The video-feedback focuses on sensitivity chains according to the original VIPP programs, and on the dyad’s daily patterns and routines. The intervener introduces parental responses to the child’s behavior within “sensitivity chains”. The child may show positive (smiling, attending, pointing) or negative (crying, screaming, dashing) signals. Adequate, i.e., timely and positive, responses by the parent (smiling back, consoling, explaining expectations, using sensitive limit setting) are highlighted, and their relevance to gaining the child’s trust and feeling understood are demonstrated by the positive reactions of the child (continuing eating, complying, smiling, stopping yelling or crying). Making these chains-of-events explicit improves the parent’s awareness of how the child’s and their own behavior interact. In addition, parents learn to adapt their responses to the (perhaps impaired) level at which the child processes social information (Noens & Van Berckelaer-Onnes, 2005).

Two aspects of daily problems for many families with a child with autism are addressed: (1) managing challenging behavior and (2) support of communication. Various recurrent problems are prevalent in children with autism, including eating problems (Laud, Girolami, Boscoe, & Gulotta, 2009), sleep problems (Couturier et al., 2005) and challenging behavior (Matson et al., 2011). To manage child-non-compliance, elements of VIPP-SD has been included, focusing on non-coercive responses to disruptive behavior (e.g., a clear verbal “no”, combined with distraction or explanation), positive reinforcement, and using time-out procedures (Juffer et al., 2008, pp. 17–18).

In this third session, a 20–30 minute videotape of an everyday meal (snack or dinner) is used. Standardization of meal-time video pictures is limited because of the varying and personal daily patterns in families. In general, the feedback focuses on the organization of a predictive, daily structure. In addition, we introduce the use of augmentative communication devices such as pictograms, photographs or written texts in order to advance communication in everyday circumstances. The use of such communication devices is based on visually structured components of evidence-based interventions; the Treatment and Education of Autistic and Communication Handicapped Children (TEACCH) program (Erba, 2000; Mesibov & Shea, 2010) and the Picture Exchange Communication System (PECS), that includes functional communication training to stimulate children’s social engagement (Bondy & Frost, 2001).

#### ***Vignette session 3: Sensitivity chains, daily problems and routine***

Ana is a 2-year-old girl with autism spectrum and average cognitive and speech / language development.

The complete family sat at the table (mother, father, 5-year-old sister and Ana), eating lunch, which was filmed for 18 minutes. The recordings presented several chains of sensitivity and moments of sensitive discipline. At the beginning of the meal, the first sensitivity chain was identified. *Ana showed her own knife proudly → the mother noticed Ana’s showing behavior and commented positively → Ana started to butter her sandwich with the knife.* Another sensitivity chain developed as follows: *Ana was eating her sandwich → the mother commented to the eating while she gave Ana a compliment → Ana nodded and smiled.* Ana enjoyed the meal. She was interested in the food and sat at the table for a long time. Her parents created a calm ambiance. An example of sensitive discipline was: *Ana intended to take another piece of cheese → the mother looked into Ana’s eyes while she explained to Ana that she already had a*



*piece and therefore she could not have any more cheese → Ana accepted the message and started to eat.* The mother's response to Ana's signal was timely, combining firm limit-setting with making eye contact. The importance of structure and routines in other daily situations was acknowledged, including the use of pictograms as a supporting communication device. Ana took her mother's words literally – a common reaction from children with autism – and the intervener advised Ana's mother to avoid the use of jokes and metaphors. The mother mentioned Ana's anger and noncompliance when unexpected situations occurred. The intervener discussed sensitive discipline strategies, such as preparing Ana for transitions in advance, involving Ana in daily activities (e.g., laying the table), showing empathy for Ana's anger when she had to give up something, naming and explaining parental rules, and providing alternatives – all through the use of positive reinforcement techniques, such as praising the child and giving compliments. The intervener also suggested that temper tantrums could be dealt with by the use of a sensitive time-out, in duration corresponding to child age (never longer in minutes than the child's age in years).

#### ***Session 4: Sharing emotions, emotions and (stereotypical) behavior***

During the fourth session, the original VIPP focuses on sharing emotions – showing and encouraging parents' affective attunement to the positive and negative emotions of their child. Sharing emotions requires the recognition of emotions. In children with autism, emotions are often paired with stereotypic behavior, due to their problematic regulation of emotions. Stereotypical behavior varies in degree and performance from simple behaviors such as stereotypical movements, tics, and repetitive manipulation of objects, to complex behaviors such as restricted interests or preoccupations, rigid rituals, repetitive language and specific object attachments (Lam, Bodfish, & Piven, 2008; Turner, 1999) and it may be difficult for parents to "read".

The following three-minute play fragments are used: (1) the dyad's making music together using a xylophone, (2) singing songs with gestures to provoke imitation, and (3) blowing soap bubbles. For many children with autism these play materials challenge their emotion processing and communication skills. The parents are invited to name the emotional state of their child by interpreting his or her stereotypical behavior.

The preparation of this session includes the screening of all previous tapes to identify the child's stereotypical behaviors. The parent is invited to review the meaning or context of such behaviors in order to recognize the function or underlying emotions. Basically, stereotypical behaviors are signals that the child is excited and may need the parent's help in structuring the situation, or the parent's help in dealing with emotions.

#### ***Vignette session 4: Sharing emotions, emotions and stereotypical behavior***

Daniel is a 4-year-old boy with autism. He has average cognitive development and below average speech / language functioning.

Daniel was excited about blowing soap bubbles. He was compliant to his mother's clear instruction to create more distance in order to give room for the bubbles. He liked to catch and extinguish the bubbles. Daniel looked expectantly at his mother when she started to blow new bubbles, and they laughed a lot together (emotion sharing). The

following sensitivity chain was shown. *Daniel asked for a big bubble → his mother told him she would try to blow a very big bubble → Daniel jumped joyfully as he expected a big bubble.* After a while, his mother started to count the bubbles, but Daniel did not cooperate. He wanted to play without any counting. His mother showed Daniel how to blow bubbles himself and both enjoyed the game again. His mother learned to distinguish different aims of play; education and entertainment. By following her son in the way he preferred to play, the interaction remained positive. During the current and previous films, Daniel jumped up and down when he was enthusiastic. This stereotypical behavior is partly age-related. By jumping, Daniel showed his feelings of excitement. His mother was relieved to interpret Daniel's stereotypical jumping as an expression of positive feelings, without the need to interfere. Based on the video feedback, his mother decided to wait longer for Daniel's responses. She noticed the need for Daniel to process information at his own pace as she watched him listening carefully to her messages.

### ***Session 5: Booster session***

During the final home visit, the other parent is invited to join the feedback. During this session, we review all themes. The three previously-taped film fragments are (1) playing with a wooden fruit set, (2) reading a book, and (3) playing with a marble run.

The intervener shows the film fragments as before, inviting the parents to speak for the child and highlighting sensitivity chains. The intervener discusses with both parents the positive parent-child interactions, daily routines, coping patterns and the degree of the child's autism features seen in play, communication and stereotypical behavior.

### ***Written information***

After each session, the parent can practice the individual pieces of advice from the video-feedback, supported by a brief, standard written explanation corresponding to the theme of the session. This standard dossier comprises background information on the topic and general tips for handling children's behavior. At the end of the program, the parent has collected the full dossier, which can serve as a store of advice for the future. During the final session, the parents also receive an individualized written summary. This brief summary describes the individual competences of the child and developmental issues for the parent to attend to.

### ***Intervener criteria and training***

The standardization of VIPP-AUTI allows professionals of various disciplines to act as interveners. Professionals who are experienced in care for children with autism, including nurses, pedagogical or social workers, home trainers, and professionals in daycare settings, might be in the position to learn to apply VIPP-AUTI rather quickly and effectively. Working according to the intervention protocol can be learned in a workshop with additional supervision on the job. Also, an online professional network is accessible on [http://www.linkedin.com/groups/VIPP-SD international](http://www.linkedin.com/groups/VIPP-SD_international).

### Current findings

In a randomized control trial with the VIPP-AUTI ( $N = 78$ ) we found that parents who received VIPP-AUTI ( $n = 40$ ) were more likely to respect the child's autonomy and exploratory behavior as assessed with the Emotionally Availability Scales of Biringen, Robinson, and Emde (2000), without interfering or dominating children's behavior too much. Parents also reported more feelings of competence in child rearing after VIPP-AUTI, as measured with the Parental Efficacy Questionnaire, based on Bandura's theory of personal efficacy (Bandura, 1997), and adapted to parenting (Rutgers et al., 2007; Yaman, Mesman, Van IJzendoorn, & Bakermans-Kranenburg, 2010). All parents completed all sessions of the VIPP-AUTI program. Their satisfaction as measured with the Dutch version of the Client Satisfaction Questionnaire (CSQ-8; Attkisson & Zwick, 1982; De Brey, 1983; De Wilde & Hendriks, 2005) ranged from satisfied to very satisfied with the program. In a separate paper, we will report quantitative details of the findings.

The following quotes of three parents illustrated responsiveness to the training several months after receiving VIPP-AUTI.

The mother of Alice (48 months old and diagnosed with ASD nine months ago):

*I have learned what Alice does and why she does that. It was interesting. I saw myself ordering Alice to play with me, for instance, but that way I wouldn't want to play either. It can be asked in a much more playful way. The home trainer pointed out that Alice puts her head back sometimes. I didn't see that at first, because I am always with her. But a little while ago I did notice it, and she does do that. I also learned not to give all the food at once, but rather just one plate at a time, with the right amount. The home trainer has explained to me that I should talk to Alice a lot to increase her language abilities. It is true that I never used to say much, because Alice didn't speak.*

The mother of Thom (58 months old and diagnosed with ASD nine months ago):

*I have learned to watch Thom in order to understand him better. I need to spend more time with him and that is a point of attention for me. I am not used to structure my life but I need to. I am working hard at changing myself.*

The mother of Vincent (46 months old and diagnosed with ASD eight months ago):

*I have learned that I should talk a lot, explain everything, basically guide all that Vincent does, in a word: talk. The footage has shown me a lot. What I saw was confronting, but not in a negative way. It made me realize a lot. For instance, when I turn around, I am busy thinking about what I am going to do, and take no notice of the fact that Vincent is still following me. He is focused on me. Apart from that, the written instructions were nice to read, for instance on how to play together – I really try to follow the tips.*

One of the nurses who provided VIPP-AUTI reported also educational effectiveness:

*The first two sessions were aimed at getting to know each other and at getting used to the filming and talking about the footage. It was surprising to see that very few parents minded being filmed. Some parents wanted practical advice pretty soon. I would tell them that I wanted to get to know their child better first, because the point was to think of solutions together – solutions that fit with their child in particular, because every child is unique. In my experience this works well.*

## Discussion

VIPP-AUTI is an adaptation of the attachment-based VIPP, specifically targeted to families with young children with autism. Early intervention, directly after the diagnosis of autism, enables parents to recognize and manage the autistic traits of their child better. VIPP-AUTI can be provided very early, even during the first year of life, because of its focus on parental sensitivity to children's autistic characteristics. Although parents of children with autism were found to be sensitive to children's needs, such sensitivity was unrelated to attachment security in the children (Van IJzendoorn et al., 2007). Increased understanding of the child's behaviors associated with autism may elevate the level of autism-specific parental sensitivity that, in turn, may enhance the children's attachment security. Furthermore, the individualized video method acknowledges factors such as cultural background, autism-related traits of the parent, and co-morbidity of the child's diagnosis, which may partly explain its feasibility.

In contrast to long-term evidence-based comprehensive intervention programs for young children with autism, VIPP-AUTI is short-term, comprising only five home-visits over three months that can be implemented on top of care-as-usual. Interaction-focused interventions have shown to be effective on infant attachment security when they include fewer than 16 sessions (Bakermans-Kranenburg, Van IJzendoorn, & Juffer, 2003). A short-term program limits the intervention burden. Greater parental insight into the meaning of their child's autism can indicate a direction for additional long-term intervention, if necessary. VIPP-AUTI is meant to help optimize the developmental niche created by the parent for the child with autism.

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