Chapter

An Observationally and Psychoanalytically Informed Parent-Toddler Intervention for Young Children at Risk of ASD: An Audited Case Series and Convergences with Organicist Approaches

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Abstract

In this paper we describe, with illustrative vignettes, an observationally and psychoanalytically informed parent-toddler intervention for young children at risk of ASD. The intervention was offered to children between 18 and 24 months who fell in the High Risk category of the Checklist for Autism in Toddlers (CHAT), which carries an 83% chance of a diagnosis at the age of 3 ½. In the absence of pathways for children under 2, this preliminary case series comprised 8 children from a heterogeneous clinical population. A significantly lower proportion of treated children were later diagnosed than the CHAT would predict ($p = 0.03$, Fisher's Exact Test), suggesting that this intervention merits further investigation with larger numbers of children and additional instruments. Scores on two routine outcome monitoring measures (the Goal Based Measure and the PIR-GAS) improved both in children who were later diagnosed and in those who were not. We consider these findings in relation to recent non-psychoanalytic research papers (including an RCT on a parent-mediated intervention) that demonstrate the prime importance of parent-toddler interactions, and we suggest that supporting parental confidence is essential to improvement. We discuss emerging convergences between psychoanalytic and organicist approaches, and the possible place of this intervention in conjunction with others.

Keywords: autism, CHAT, early intervention, parent-toddler work, parental confidence, psychoanalytic-organicist convergences, shared emotional experience, 'therapeutic' observation, toddlers at risk of ASD

1. Introduction

In this chapter, we describe an observationally and psychoanalytically informed, non-intensive parent-toddler intervention for children at risk of ASD; we discuss a

preliminary audited case series, and we point out convergences with interventions conducted by organicist workers. An autism diagnosis is usually impressively stable [1, 2], but recent randomized controlled trials suggest that the trajectory of infants and young children may be more modifiable than has long been thought (see French and Kennedy 2017 [3] for a systematic review). As Ozonoff (2013) [4] has written, "By demonstrating that there is solid science behind hope, we can add fuel to the urgency for very early diagnosis and intensive treatment of ASD."

Kanner (1971) [5] emphasized how widely the later fate of his original cohort of children varied, although they had earlier been so similar as to warrant the idea of an identifiable syndrome. Of 11 children, two (and a third to some extent) were employed as adults and respected by the community; most of the others were permanently institutionalized. Kanner was clear that autism stemmed from inborn difficulties in relating, but he also described the "wisdom" of a foster couple who helped the child to channel his obsessions in socially productive ways. He stressed however how little was known, and that no one intervention worked for all children.

Much more recently, Fein et al. (2013) [6] identified a group of so-called "optimal responders" whose performance on various measures came to be indistinguishable from that of controls in spite of a previous reliable autism diagnosis. Again, no shared characteristics could be identified. Moulton et al. (2016) [2] reported that 9% of 200 diagnosed two year olds were "optimal responders" at 4, while some 83% retained the diagnosis. Ozonoff et al. (2015) [1] have similarly found the stability of a diagnosis to be 82% at 24 months (93% at 18 months), while Lord et al. (2012) [7] have identified differing trajectories within a group of at-risk children who were repeatedly assessed between 18 and 36 months. These findings point up both the usual impressive stability of the diagnosis and the fact that a surprising degree of improvement may sometimes be possible: Even suboptimal improvement can make an incalculable difference to the lives of the children and their families [4].

At the same time, the traditional dichotomy between biological and interactional approaches to autism is beginning to narrow. Singletary [8] has proposed an integrated model of autism that brings together findings on brain structure and function, on the effects of hormones and stress, and on social and emotional interaction in attempting to trace how autistic behaviors may be established and perpetuated; he links these formulations with those derived from psychodynamic treatment approaches. Like the overwhelming majority of contemporary workers from all disciplines, Singletary subscribes to Kanner's view that autism stems from congenital factors, but adds that atypical experiences arising from these may lead the child to construct unrealistic pictures of significant adults (see also [9]). For example, the child's atypical sensory endowment may lead it to experience the shared world as a frightening place and to misattribute this to its carers.

Conversely, intensive early intervention of various kinds, including the Early Start Denver Model [10, 11] and pivotal response therapy [12], leads to demonstrable brain changes that can be demonstrated at 2-year follow-up [13]. After a parent-delivered intervention, infant siblings of diagnosed children, who therefore had a heightened risk of ASD, showed measures related to brain systems concerned with social attention that came closer to those in controls [14]. Equally, levels of oxytocin, the "bonding" hormone, which are significantly lower in young children with autism, normalize following 20 minutes of satisfying social interaction with caregivers, but quickly fall off again [15]. These findings illustrate on a biological level that at least one characteristic atypicality in ASD can temporarily be corrected through satisfying experiences of relatedness. They also suggest that ongoing, repeated input will be necessary for consolidation.

In a particularly interesting study, Wan et al. (2013) [16] compared infant siblings of children diagnosed with ASD to a control cohort. The AOSI (a screen for behavioral precursors of autism) was administered at 6–10 months and again at 12–15 months; films of infants playing with their mothers were rated on the Manchester Assessment of Infant-Caregiver Interaction (MACI). Parental non-directiveness and sensitive responsiveness were lower in the high-risk infants at both ages: the authors suggested that the parents might have adopted a more directive style as a consequence of atypical interactions with their older, diagnosed child (a suggestion that agrees with our clinical experience). Another, compatible, explanation was that the parents were responding to the at–risk babies' lower levels of vitality and engagement.

Most interestingly in relation to the possibility of early intervention, an ASD diagnosis at 3 years was not predicted by the siblings' characteristically autistic behaviors as shown on the AOSI (though other studies had suggested that AOSI scores were stable over time). What did predict a diagnosis at 3 years was the at-risk siblings' interactional style with their caregivers as assessed on the MACI, more particularly the caregivers' scores for directiveness and sensitivity (see also [17]). At 12 months, though not earlier, dyadic mutuality, infant positive affect and infant attentiveness to the caregiver predicted an ASD diagnosis at 3 years. It seemed that features suggestive of autism, as assessed on the AOSI, might be modified by helpful infant-caregiver relationship patterns. Importantly, however, most of this group of at-risk siblings, who were not given a diagnosis in spite of difficulties picked up by the AOSI, did show problems when compared to the low-risk siblings: the authors called them the "other concerns" group. The findings were conceptualized on the basis of a transactional model, in which problems in the infants contributed to their carers' sub-optimal interactional style (see also [18]); this in turn reduced the infants' opportunities for social learning. The authors concluded [16] that "intervention efforts to optimize social functioning may need to start early in infancy before interaction patterns become embedded in emerging social atypicality."

In a case series of 8 at-risk infant siblings [19], Green reported definite improvements on a number of measures in comparison with controls after the parents had been offered video interaction feedback, while Bradshaw et al. (2015) [20] and French & Kennedy (2017) [3] have reviewed RCTs of early intervention for infants and young children at risk of ASD. Until 2015, the Early Start Denver Model [10, 11], which provides intensive input over 2 years, was the only intervention after which social communication was significantly better than for Treatment As Usual, though interventions of fewer than 2 hours per week did achieve some improvements. However, Green et al. [21] in 2017 published the follow-up of an RCT of low-intensity video-feedback intervention to promote positive parenting (Modified iBASIS VIPP), conducted with 9–14 month-old at-risk siblings and their parents and first reported in 2015 [22]. Statistically significant improvements were obtained in 'autism prodromal symptoms' over the course of the follow-up, while at the end of the intervention itself the improvements had merely been suggestive (a sleeper effect implying that more rewarding interaction patterns had been internalized). Parental directiveness also decreased significantly, alongside increases in attentiveness to the parent and initiation of interaction by the child. However, no difference could be seen in the rate at which children were given a diagnosis.

2. The present intervention in context

The present Child & Adolescent Mental Health (CAMHS) intervention was informed by work in France, where Houzel [23] had developed outreach provision

for infants and toddlers suffering from various serious problems. Families were offered a modified version of infant observation (originally introduced by Bick [24] as a training module for child psychotherapists and soon adopted in other mental health trainings). Trainee observers learn to position themselves so as to be receptive to whatever is happening without presenting themselves as experts. Fortuitously, mothers who were distressed by the lack of adult company often felt supported by the presence of an interested, non-judgmental person who was there to learn rather than to instruct. Reports began to be published of "participant", or "therapeutic", infant observations where observers took a more active role but where the main emphasis was still on their sensitive, receptive function (for an overview, see [25]). "Therapeutic" observation now forms part of the clinical repertoire of child psychotherapists in many different settings, and has become part of child psychiatry services in a number of French regions; an increasing number of publications report encouraging outcomes of single case studies [26–29].

Houzel stresses that many new mothers can doubt their own competence compared to professionals: the observer's receptive stance can go a long way towards supporting mothers' confidence and self-respect. This emphasis on the observer's sensitive receptivity converges with the later research findings already mentioned [16, 21] on the central role of parental sensitivity and non-directiveness: the observer's modeling of these qualities may support the parents in developing them.

The present case series was originally framed as a pilot research project [1] to investigate the practicality of offering weekly outreach participant observation with parent support for a year to families with toddlers who had been screened with the Checklist for Autism in Toddlers (CHAT) for the risk of a later ASD diagnosis. The CHAT [30–32] is designed for use in primary care and is administered twice, at a week's interval, when the child is between 18 and 24 months. It includes parent reports and direct observation, and addresses the child's capacity for symbolic play and joint attention. Based on standardization on some 16,000 toddlers [31], children who fail in all areas fall in the High Risk category, with an 83% likelihood of an ASD diagnosis at 3 ½. All parents in the pilot gave written informed consent for publication[2]. The two children who could be recruited were later assessed for ASD by clinicians (a child psychiatrist and a multidisciplinary specialist team respectively) who were independent of and blind to the intervention; in the first case, when the child was 3 ½ and the observation had been completed, and, in the second, when the child was just over 2 and had had 4 months of a 1-year observation. The first child was not given an autism diagnosis, while the second was.

This pilot proved impractical due to problems with recruitment and with the geographical matching of observers and families. Fortuitously and over a long period, appropriately-aged at-risk toddlers were referred to the clinic, where one of us (MR) offered participant observation to them and their mothers (and fathers where possible). The only instrument now used was the CHAT at baseline, administered independently of the clinician except in 2 cases (where the issue of bias is not relevant as these children subsequently received a diagnosis). Parents welcomed the CHAT within a clinical context, as they were all concerned about the possibility of autism: it was emphasized that this was a screen, not a diagnosis. Parents knew that their child was part of a case series that would be audited, and subsequently gave consent for the publication of anonymised data. The later diagnostic assessment (by a psychiatrist, a pediatrician, or an interdisciplinary team) was independent of the clinical intervention. In 3 of the 4 cases who did not receive a diagnosis, the

[1] Partners: Prof. Maria Rhode, Dr. David Simpson, Prof. Judith Trowell, Dr. Martin Bellman, Dr. Elizabeth Nevrkla. Observers: Agathe Gretton and Kate Stratton; Supervisor: Margaret Rustin.

[2] Ethical approval granted by the Camden & Islington LREC (Rec Reference Number 05/Q0511/122).

assessors were blind to the treatment; the fourth child was not assessed, as he was obviously not autistic. In all, 2 appropriately-aged children completed the pilot project, while the intervention was delivered at the clinic to a further 6; in each group, the same proportion (50%) received a diagnosis.

The intervention was distinct from child psychotherapy[3] (though 2 children made the transition to psychotherapy after a year, when the parents had become concerned about emotional issues). Clinicians inevitably saw the process through an emotional lens, but comments were not insight-based and did not address the parents' past unless they raised such issues themselves. Any problems between parents and clinicians were dealt with on a realistic basis in the present rather than in terms of past relationships. The main aims initially were to try to engage the child, to make links between family members, to draw the parents' attention to capacities of the child that they might not have noticed, and to think together about what seemed to trigger the child's engagement or to work against it. This was in fact not unlike the aim of VIPP, though no video was involved and the clinician pointed out events to the parents in real time rather than retrospectively. The observational focus, and the emphasis on supporting the parents in observing their child and thinking about him, are features shared with "Watch, Wait and Wonder" [33], though the clinician was more active: toddlers at risk of ASD generally need help to be able to engage, and prolonged "waiting" could be counterproductive. Sharing the emotional experience of all members of the family is central to this approach: this follows naturally from the clinician's receptive attitude. Many parents particularly valued the opportunity to process their own feelings about their child's possible autism and about the many assessments and interventions being offered.

In general terms, the clinician aimed to

- Help the child to engage (for instance, by mirroring their actions or affects, a strategy used in many different autism interventions)
- Respond to parents' anxieties and concerns, and provide a place to process their experience
- Describe the child's actions, and consider possible meanings, so as to encourage communication between parents and child
- Remind the parents of their importance to the child, and foster their sense of competence
- Validate and support the parents' own observational capacities
- Validate satisfying interactions and reflect on the possible meaning of difficulties; accept negative feelings

Some parents responded skeptically to the idea that their child's behavior might be meaningful or communicative: parents of toddlers with autistic features have had to endure their profoundly invalidating lack of response. Some say that they do not exist for their child except perhaps as a source of food. Observation may convince the clinician of just how essential the parents are for the child; but any worker who has experienced the impact of a toddler who completely ignores them is well placed to empathize with the parents' experience. This means that parents

[3] Manual in preparation.

and child may both wish for contact, but that mistiming and the expectation of not being responded to can block this.

For example, an 18-month-old girl (not part of the case series as she was at Medium Risk only) unusually tried to make eye contact with her parents, who happened not to be looking at her at that moment. She turned away and remained impossible to engage for the rest of the hour. The worker shared her observations with the parents, who then realized that the child's behavior was a meaningful example of (unrealistic) disappointment rather than yet another instance of lack of interest or incapacity to respond. They began to hope that there could be a point to paying careful attention to the details of their child's behavior. Over time, this can lead to a virtuous circle of mutual encouragement instead of the vicious circle of discouragement between parents and child [25] in which repeated experiences of invalidation lead the parents to expect nothing else and not to notice the often faint indications that the child might be more open to contact. Again, clinicians are familiar with the experience of suddenly realizing that a child has just done something subtly different that has nearly gone unnoticed. This has potentially far-reaching consequences: what does not get noticed cannot get built on.

In some cases (including that of the little girl in this vignette), it may take a long time for parents to risk believing that their child's behavior could be meaningful. These particular parents told the clinician repeatedly that she must be mad to suggest such a thing. Over time, however, they began to take turns to notice and report what their child had done between sessions, though they might add that this did not mean anything. At length, both parents began to risk being hopeful at the same time, to share pleasure at their little girl's development and to encourage each other when there was a temporary plateau.

We will conclude this section with some further examples of how the clinician might approach specific issues.

- We have already stated that a central aim is to strengthen the links between parents and child. Sometimes the clinician will engage the child first and then point out to the parents what the child has been able to do, or else comment in a way that emphasizes the child's meaningful approach to the parent. For instance, a little boy of 20 months was described as being preoccupied with moving toy cars back and forth repetitiously. He drove a car repeatedly up the arm of the sofa his mother was sitting on, and immediately let it fall to the ground. The therapist commented, "Oh dear, falling down!" (said with a falling vocal inflection). "The car went to see mummy, and then it fell down!" This mother was surprised and delighted to think that her child's play might not be merely repetitious and meangingless, and soon began to engage with him by saying "hello" to the car; while the little boy regularly made eye contact with the therapist whenever he repeated this play, which was the first instance of social referencing that anyone had seen from him. A vital implication of this interaction was that the mother mattered to the child and that he wanted to connect with her.

- Other parents may be actively engaged with their toddler: sometimes directively, but often scaffolding his or her activity very sensitively. The clinician may spend considerable time as a benign witness, sometimes putting into words what is happening but often without a clear role. (Again, the implicit message is that it is the parents who matter). The clinician might comment: "yes, I see,"or "Mummy saw [what you did]" when the child engages in social referencing. When there has been an instance of satisfying communication between mother and toddler, the therapist might say, "Mummy understood

what you wanted/what you were showing her"; or, if the parent has reported an example of progress, "Mummy was very happy when you pointed to the picture/showed her what you wanted/liked playing with the other children." In an intervention that is going well, mother and child may end up playing together for long stretches while the therapist shares and validates the mother's pleasure. In psychoanalytic terms, this could be conceptualized as what Stern calls the "good grandmother transference" [34].

- Imitation is central in establishing contact with toddlers at risk of autism. The clinician may mirror the child's actions and gestures, sometimes in a different mode, as in the first example, where the therapists's falling vocal inflection mirrored the falling of the toy car (see Stern, 1985 [35], on cross-modal attunement). The little boy in that example often banged on the radiator to make a sound: the therapist similarly banged on a metal rubbish bin, and this turned into a "conversation" that could be varied by introducing different rhythms.

- Where a child's actions become repetitive and meaningless, the therapist will need to intervene. This may be by removing a toy car whose wheels the child is spinning, while explaining that it is stopping the therapist and child from being together. The therapist may also introduce a more meaningful context, for instance by placing a doll in the car or by using another car to approach the first and pretending to speak to it.

For example, the same little boy already mentioned, like many children with autistic features, was preoccupied with opening and closing doors, and on one occasion hunched himself over the dolls' house, repetitiously opening and shutting its door in such a way as to exclude the adults. After commenting that she could not see what he was doing, the therapist approached the dolls' house with a toy animal, who popped his head out of different windows, saying "hello" to the boy as though teasing him by appearing in a different place each time. He smiled, returned to contact and produced a stream of lively babbling.

The therapist may model ways of overcoming negative patterns of interaction, or remind the parents of times when they had themselves been able to do this. For example, when a child climbed onto the therapist's lap and repeatedly tugged at her hair, she said that she could see that he was cross, but hair-pulling was not allowed as it hurt her, and she removed his hand from her hair while maintaining eye contact and keeping him on her lap. He focused on looking at her and began to babble, which she mirrored. Later in that hour, he pinched his mother, and she too said that she could see that he was cross; she picked him up and rocked him, and he settled down. In a later session he persistently pinched and strangled his mother in a way that was very difficult to tolerate, and she became increasingly upset. The therapist reminded the mother of how well she had previously managed by rocking him when he had pinched her: the mother tried picking him up and rocking him, and again this was successful in helping him to settle.

3. The case series

3.1 Children's characteristics and later diagnostic status

The children were a heterogeneous group, recruited largely by word of mouth in the absence of pathways for this age [36]. While most research studies we have mentioned concern infants whose older siblings have an autism diagnosis, this was

true of only 2 of our 8 toddlers. Factors well-known to be associated with autism - extreme prematurity; a metabolic abnormality; and a congenital condition together with a neonatal infection – each with a 20% risk of autism – were present in 3 of the children; the other 5 children showed autistic features without these associated factors. Of the 2 children with older diagnosed siblings, one received a diagnosis while the other did not.

Table 1 summarizes the information on the 8 children in the High Risk category of the CHAT with regard to gender, to their later diagnostic status, and to whether or not they had regressed, were born prematurely, or were the younger sibling of a child diagnosed with autism. The small number of children means that no associations can be identified between any of these factors and a subsequent diagnosis.

Table 2 concerns age at referral, at the beginning of treatment[4] and at diagnostic assessment, as well as prematurity status and the presence of an older diagnosed sibling. Of 8 children in the High Risk category, 4 (or 50%) received an autism diagnosis at a range of ages. According to the CHAT, this figure might have been expected to be 83% ($p = 0.033$, Fisher Exact Test [37]).

3.2 CAMHS routine outcome monitoring measures

These were routinely collected in line with clinical practice, but are not available for the child who was seen before they were introduced at the clinic or for the two children seen in their homes. The two measures collected, as shown in **Table 3**, were the PIR-GAS, (where the clinician rates the parent–child relationship) and the Goal Based Measure, where the parent rates how far the child has progressed towards 3 desired goals on a scale of 0 to 10. (Child G moved away before any measures except GAS-1 could be obtained). As is usual, the parents appeared to rate progress more highly than the clinician; the big jump in the GAS score for Child A coincided with his beginning to call his parents Mummy and Daddy, which made an enormous difference to their relationship with him. It will be seen that all parents judged their child to have improved on the agreed goals, whether or not they later attracted a diagnosis.

3.3 A heterogeneous group: autistic features, developmental achievements, and subsequent diagnostic status

Table 4 shows some of the children's developmental achievements. Reliable patterns would not be expected with so few children, though some tendencies were unexpected. The children's characteristics at the beginning of the intervention did not predict their diagnosis [16]. All but 2 of the children had sleeping problems. Perhaps unsurprisingly, only 1 made eye contact, and was subsequently not diagnosed; on the other hand, the one child who initially showed social referencing later was.

In the course of the intervention, all but 1 of the children developed turn taking and reciprocity: the one who did not received a diagnosis. All (4) of the children who were later undiagnosed developed play, whether in response to an adult, initiated by themselves, or symbolic; of the diagnosed children, 3 played in response to an adult, but only 1 initiated play themselves or played symbolically. This underlines the importance of the adult taking the initiative where necessary.

Table 5 concerns the use of words and of two-word and three-word sentences, as well as of capacities such as playing peek-a-boo games, which clinically is often

[4] Exclusion criteria included neonatal atypical brain structure; epilepsy; and child protection concerns or serious mental illness in the family.

		Diagnosis		
		No	**Yes**	**'PENDING'**
CHAT 1	**HIGH**	3	4	1
CHAT 2 (one week later)	**HIGH**	3	4	1
	F	1		
Gender	**M**	2	4	1
	N	3	3	
Regressed?	**Y**		1	1
	N	2	3	1
Sibling?	**Y**	1	1	
	N	2	4	1
Premature?	**Y**	1		

Table 1.
Some characteristics of the 8 children.

Sibling?	Prem?		Mean	N	Minimum	Maximum	Range
No	No	Referral age in months	18.60	5	13	23	10
		began Rx age m months	21.20	5	16	24	8
		Age at assessment in months	30.60	5	22	42	20
	Yes	Referral age in months	24.00	1	24	24	0
		began Rx age m months	28.00	1	28	28	0
		Age at assessment in months	55.00	1	55	55	0
Yes	NO	Referral age in months	15.00	2	12	18	6
		began Rx age m months	19.50	2	15	24	9
		Age at assessment in months	34.50	2	27	42	15

Table 2.
Age of children at referral, beginning of treatment and diagnostic assessment.

a promising sign, and engaging in joint attention and following and producing a point, all of which are targeted by the CHAT. Participating in triadic situations is also encouraging clinically, as is the display of a sense of humor. Again, the small number of children rules out meaningful distinctions between those with and those without a subsequent diagnosis. However, there appear to be some trends that are at least suggestive in respect of initiating play (**Table 4**), producing symbolic play (**Table 4**), producing sentences of 2 words or more (**Table 5**), showing the capacity for humor (**Table 5**), and (not surprisingly as this is a component of the CHAT) producing or following a point (**Table 5**).

CHILD	Goal-based measure T1	Goal-based measure T2	GAS-1	GAS-2
A	4;6;4	6;7;6	21	53
B	2;1;2	7;5;8	50	50
C				
D	2;1;0	3;5;2	32	40
E	1;1;2	2;6;8	55	58
F				
G			21	
H	1;1;0	2;8;4	32	44

Table 3.
Children's scores on routine CAMHS outcome measures (Goal-Based Measure and PIR-GAS).

		Diagnosis		
		No	Yes	('Pending')
Sleeping problems	Y (mild)	1		
	Y	3	3	
	N		1	1
Eye Contact (initial)	Y	1		
	N	3	4	1
Social Referencing (initial)	Y		1	
	N	4	3	1
Turn taking	Y (variable)		2	
	Y	4	1	1
	N		1	
Reciprocity	Y (variable)		1	
	Y	4	2	1
	N		1	
Play: responds	Y (variable)		1	
	Y	4	3	1
Play: initiates	Y (variable)		1	
	Y	4	1	1
	N		2	
Play: symbolic	Y (fleeting)		1	
	Y	4	1	1
	N		2	

Table 4.
Developmental achievements.

Of the 4 children who were diagnosed, 1 was assessed at just under 27 months and one at 23 months. In both cases, the diagnoses relied on the presence of typically autistic behaviors, even though the children were well under 3 (see [16]), and did not involve observation of the child playing with the mother (or even with a clinician as in the ADOS). This point seems important in view of the studies by Wan et al. [16] and by Moulton et al. [2] and we will return to it in the discussion.

		Diagnosis		
		No	Yes	('Pending')
Words: produces	Y	4	3	1
	proto-words		1	
Sentences	Y	3		
	N		4	1
	3-w	1		
Peek-a-boo: moves Mother's hands	Y	3	3	1
	N	1	1	
Peek-a-boo by child	Y	4	4	1
	N			
Joint attention	Y (fleeting)		1	
	Y	4	3	1
Humor	Y++	1		
	Y	3	1	1
	N		3	
Follows a point	Y (fleeting)		1	
	Y	4	2	1
	N		1	
Uses a point	Y (fleeting)		1	
	Y	4		1
	N		3	
Participates in triadic situations	Y	4	2	1
	Y (fleeting)	0	1	0

Table 5.
Further developmental capacities.

The trajectory of the child whose diagnosis is described as "pending" was particularly interesting. At 31 months, he received a diagnosis based on his withdrawn and sensory-seeking behavior after a pediatric appointment in which his mother described his difficulties while he remained withdrawn. At 34 months, his atypical behaviors were confirmed by professionals in a different country (with a high prevailing standard of expertise in autism); but they thought that a diagnosis would be premature in view of his high degree of reciprocal engagement and mutual enjoyment during play with his mother. Both of these positions seemed to us to be understandable in view of this child's behavior in the clinical context. He came to be highly engaged with his mother and responsive to her; showed evidence of Theory of Mind in everyday interactions with his parents; engaged in triadic situations; produced words and two-word sentences, and imitated animal sounds on request; followed and produced a point; and sustained humorous 'proto-conversations' with the therapist as well as with his parents. However, if his mother and therapist spoke together and he was receiving no adult attention, his gaze went blank and he reverted to spinning the wheels on a truck that he had previously been playing with appropriately. It was not until some months after the original diagnosis that he became able to remain present and engaged even when adults did not focus on him for a brief time.

Finally, a possibly suggestive trend concerns the presence or absence of "associated factors". As we have stated, these were having an older diagnosed sibling; extreme prematurity; a metabolic abnormality; and a congenital condition and neonatal infection (each with a 20% risk of autism). In each of the diagnosed and undiagnosed groups, one child was a younger sibling. Otherwise, the undiagnosed group contained 3 instances of the "other factors", while none were present in the diagnosed group. It is conceivable that autistic behaviors may be more persistent where they are not associated with such other risk factors.

4. Discussion

Like iVIPP-Auti, this intervention involves the parents in identifying interactions that promote or inhibit the toddlers' engagement. In addition, the therapist models receptivity, and aims to empower the parents and support their capacity to observe. Perhaps the most significant distinguishing characteristic of this psychoanalytically-informed kind of therapeutic observation is that the main focus of the clinician's thinking concerns the possible meaning of what is taking place – indeed, the belief that the child's behavior is meaningful – even though the meaning is not necessarily articulated (see Britton, [38]). It remains mysterious how receptive attention promotes development (see [39] for a psychoanalytic perspective) or grows the social brain (to think biologically). In any case, findings such as those of Wan et al. [16] attest that it does so, as does the association, repeatedly documented from Ainsworth et al. [40] onwards, between maternal sensitivity and secure attachment (see [41]).

The parents involved in this pilot all valued the opportunity to focus on their child and to discuss their own feelings about the process the family was going through. To some extent they were a self-selected group, as they were largely referred by word of mouth in the absence of established pathways. The intervention does not suit all families: One couple, for instance, felt unable to take time off work to attend, and instead wanted very intensive input for their son. Matching interventions to families is an important issue for future exploration. So is the issue of even earlier intervention, concerning which promising case reports exist [42, 43] and for which neurological markers at 6 months could serve as a baseline [44, 45].

The trajectory of one particular High Risk toddler illustrates the degree to which improvement can be mediated by the parents. Initially this boy made no contact with the parents, screamed uninterruptedly to the point of making himself sick, and often had to be taken out of the room. The parents' lives were seriously restricted by his fear of other children and by his other major difficulties. After some 5 meetings, the therapist went on sick leave for 3 months: She returned to find that the child had begun to speak. Clearly, this was not the consequence of any direct input from her; but the parents had felt listened to and were able to maintain a different mind-set while interacting with their child. This boy remains somewhat delayed, but is doing well with support at a mainstream school. He enjoys a wide range of activities and friendships, though his behavior could have justified an autism diagnosis for some 18 months after work began: an example of how much change can take place between 2 and 4 years, a period during which a diagnosis is usually stable [1, 2].

The case of the child whose diagnosis is "pending" (p. 11) illustrates how important it is that a diagnosis should take account of how the child plays with the mother, not just the presence of autistic features which, as Wan et al. have shown, do not predict a diagnosis at the age of 3 [16]. Two of our children who were given

a diagnosis received it very early (at 23 months and before 27 months respectively), on the basis of a checklist of symptoms. These families did not continue with the intervention: in one case, because they moved away and, in the other, because the diagnosis gave them access to excellent local services.

All 8 of the present children, whether or not they received a diagnosis, improved considerably in terms of pleasurable engagement with their parents and other markers of relatedness, as summarized earlier (the fact that this is a preliminary audit rather than a research study means that unfortunately there is no control group to compare them with in this respect). However, unlike "optimal responders", all showed residual difficulties to a greater or lesser degree; some of these appeared to be emotional, and, with 2 children, were subsequently addressed in psychotherapy. This links with Wan et al.'s [16] description of their "Other Concerns" group: High-Risk siblings who showed early autistic features on the AOSI but whose parents demonstrated high receptivity and low directiveness, and who, at 3 years of age, did not receive a diagnosis, but still had problems compared to low-risk siblings.

Despite all the recent research demonstrating that autistic features in early childhood are far from immutable and can be ameliorated through parent-mediated interventions, professionals (as well as parents) still often think of "having autism" as though it were something concrete and fixed. This can understandably make them reluctant to intervene early for fear of prematurely labelling a child. Many parents tell a painful story of being advised that their child "will grow out of it", which can leave them feeling unheard and invalidated. If the findings of studies such as those of Dawson [10, 11] and Green [21] were fully taken on board, professionals might feel more able to act early and with a realistic degree of hopefulness.

A diagnosis is often needed to access essential services, but it should be emphasized to parents that children are heterogeneous in respect of their trajectory [7, 46] and that, with intervention, there may be considerable scope for review between the ages of 2 and 4. Such uncertainty can be difficult for parents – and professionals – to sustain [47], but doing so may be central to being able to remain receptive and non-directive – the factors that predict a diagnosis at 3 years in the way that early autistic features do not [16]. The present intervention could help parents to manage the wait for a definite diagnosis as well as to foster receptivity, non-directiveness and the capacity to trust their own feelings and observations. The intervention is low-key, and could potentially be delivered by well-supported mental health workers at a far lower intensity than an effective intervention such as ESDM, as it is in France; it could also work well in conjunction with iVIPP-Auti. As the American Academy of Pediatrics has stated [48], listening to parents and early screening are both essential.

5. Conclusion

The rate of diagnosis of the toddlers in this case series, unlike the rate in many studies of other interventions, was markedly lower than might be expected on the basis of the CHAT ($p = 0.033$), suggesting that a larger study is warranted. The results illustrate the heterogeneity of a clinical sample and the changes that can take place in very young children with autistic behaviors, as documented in recent research. The key features of the present intervention are parental involvement; the clinician's sharing of the family's emotional experience, privileging of meaning, and support of the parents; and the promotion of receptive behavior.

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Conflict of interest

The authors declare there is no conflict of interest.

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