

Emerging Programs for Autism Spectrum Disorder

Improving Communication, Behavior,
and Family Dynamics

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Treatment of eating disorders of infants diagnosed with autism applying the Mifne method: a clinical case study



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Preamble

The following letter was received by the Mifne Center from the mother of an infant displaying eating disorders and diagnosed with suspected autism.

Dear Mifne

My name is... (name removed). I am 30 years old and my husband... (name removed) is 31. We have twin daughters and the baby Tanya (pseudonym), aged 10 months.

We are contacting you regarding Tanya, and enclose a 45-minute videotape which we made of Tanya. She has a behavioral disorder and an eating disorder. The clinic for eating disorders wants to make us an appointment, and after that another checkup with a Developmental Neurologist. She was 5 months old when we began to realize something was wrong, when she started turning her head from side to side. So we don't know whether Tanya is autistic or not, but in our hearts, we are afraid so. The things bothering us about Tanya are as follows:

1. Her abnormal head movements (we have been told this might be because of excess fluids, or maybe she does it for self-stimulation). This could be stopped by attracting her attention.
2. Her heavy breathing and fixing her look in one direction (we have been told that she does it for self-stimulation) and that this could be stopped by attracting her attention.

3. When she is awake, she refuses the bottle. We would feed her by squeezing the nipple of the bottle and squirting milk into her mouth, and this is how she drinks till today.

4. Lately, she moves her eyes upwards or sideways and stares, and when we touch her or interrupt her, she stops it.

Tanya is taken care of by her grandmother during our working hours. We are applying to you for a second opinion, and to help Tanya as long as she is small and it is still possible to make changes according to the principles of your treatment. We cannot sit back and do nothing during these next 3 to 4 months, waiting for an appointment for another test.

Looking forward to hearing from you.

After Tanya's initial assessment by the Mifne clinical team, Tanya and her family were admitted to the Mifne Center. Tanya's case study will be discussed in this paper, in the context of extant literature about ASD and eating disorders, to illustrate the application of the Mifne method and demonstrate its impact on Tanya and the family.

Introduction

The autism spectrum disorder ASD is a neurodevelopmental condition consisting of a wide range of impairments on communication, social, and behavioral aspects (APA, 2013). Children with ASD often show significant sensory processing dysfunction, demonstrated in their social emotional regulation and diverse patterns of interaction; their strong aversion to sensory stimuli resulting in behaviors and coping mechanisms such as isolation and retreat, or repetitive sensory stereotypical behaviors (Mueller & Tronick, 2020). Most of the children also display characteristics of eating disorders, appearing as sensory and behavioral disturbances, and nutrition difficulties are common from the early stages of life of children with ASD (Alonim, 1999, 2010; APA, 2013; Schwarz, 2003). A range of such behaviors have been noticed in Tanya, as outlined in the mother's letter.

Though there are as yet no clear biological markers for ASD, brain and genetic science studies provide strong evidence that there is a transaction between genetic predisposition and environmental factors, which influence the early brain development, when dynamic and significant growth of neurons takes place, creating a web of cells that control sensory—emotional—cognitive regulation (Courchesne et al., 2011; Yirmiya & Charman, 2010). Nutrition is increasingly linked with ASD, included among environmental assaults (such as air pollution and toxins, drugs, medical condition, and medication) and it is being investigated in terms of etiology of ASD and its impact on nutrient sufficiency of infants with ASD displaying eating difficulties and disorders.

Eating disorders, nutrition, and feeding in ASD

Most infants, diagnosed with ASD, display feeding problems and signs of eating disorders from early stages in their life (Alonim, 1999, 2010; Wing, 1987). They also have significantly more medical problems that interfere with food intake such as food allergies and present gastrointestinal problems (Mason-Brothers et al., 1993). Feeding problems range in severity from subclinical levels (such as picky eating, food selectivity, and undereating) to clinical extremes (such as chronic food refusal) that can lead to severe medical conditions (Budd & Chugh, 1998).

It is argued that most of the eating problems in children with ASD may be due to sensory and motor impairment and learned behavior (Schwarz, 2003). Children with autism often manifest sensory hypersensitivity and poor motor control, which may lead them to restrict the textures of food eaten (Ahearn, 2001; Prontnicki, 1995; Williams, Dalrymple, & Neal, 2000). Children with severe motor impairment and almost all children with severe speech problems also experience some degree of difficulty in feeding (Sullivan et al., 2000). Infants, who later develop eating problems, often present feeding difficulties or even reject food while being breastfed. Difficulties include abnormal sucking reflex, rejection of breast feeding, refusal to eat, and difficulty in swallowing. Many children are also afraid of the food disappearing when they swallow it. This is a sense that cannot be contained and may cause feelings of guilt and anxiety that may spread to other areas of functioning (Alonim, 1999; Alonim et al., 2007).

Environmental factors such as lack of exposure to developmentally appropriate food and age-appropriate social exchanges, limited opportunities to model appropriate mealtimes, and/or mismanagement of feeding problems might maintain and/or reinforce further eating disorders and make it difficult for a child to maintain a nutritionally adequate diet (Babbitt et al., 1994; Cornish, 1998; Raiten & Massaro, 1986; Whitely, Rodgers, & Shattock, 2000; Williams et al., 2000). Certain behaviors that occur during mealtimes (e.g., crying, screaming, agitated behavior, aggressive and disruptive behavior) can interfere with food consumption further (Ahearn, 2001; Luiselli, 1989). Furthermore, families with restrictive diets may reinforce and maintain negative feeding patterns (Cumine, Leach, & Stevenson, 2000).

The impact of ASD on family

Feeding problems or refusal to eat intensify parental concerns and worries regarding undernutrition, dehydration, health problems, and even hospitalization. As a result, eating becomes a battle ground with parents giving in, allowing their child to eat preferred food, in preferred ways and places, as is evident in Tanya's case. This however reinforces further such eating habits (Alonim, 2010). The pressure and tension created impact on the child, influence their siblings, and bring about disequilibrium in family life.

During the first weeks of life, in which the baby regulates himself physically and emotionally, the mother–baby interaction reveals intricate sensitivities that have significance for the baby’s reflective perception. The mother’s emotional availability provides a matrix for the growth of the baby, as she picks up the signals that the baby transmits, and these constitute the basis for communication. However, an overanxious mother is not emotionally available to react constructively to the baby’s signals. Her anxiety may transmit a message of threat, against which the baby has to construct defense mechanisms. In such a situation, there is a lack of synchronization (Alonim, 2013; Trevarthen, 2007).

The lack of synchronization, when escalated, forms a sort of a vicious circle: the baby does not respond to the mother’s (or any family member’s) attempts for interaction which, in turn, being interpreted as rejection and/or failure, may accentuate their emotional state, leading to responses that may be perceived by the baby as a threat. These early interactions and experiences, however, are critical in brain development and formation, especially during the first 2 years of life (Bauman, 1999).

This situation accentuates further parents’ anxiety, as it evident in the letter written by Tanya’s mother. It increases fear and confusion that is often compound by a sense of guilt, failure, and shame (Alonim, 2010). Parents of children with autism have to cope with additional pressures like deficiency in emotional and social mutuality, lack of verbal or social feedback (Salazar, 2020). In the course of the years, many of these families undergo a significant rise in depression and anxiety and the increased difficulties they experience impact on the quality of life of a family and ability to cope with the situation (Minuchin, 1978; Friedrich & Friedrich, 1981; Raiten & Massaro, 1986; Luiselli, 1989; Mason-Brothers et al., 1993; Pronnicki, 1995; Schwarz, 2003; Massie, 2007; Siman-Tov, 2009; Pierce et al., 2011; Mueller & Tronick, 2020; Salazar, 2020), a situation clearly evident in Tanya’s case.

Thus addressing the psychological needs and functioning of the family, especially in the early stages of diagnosis of autism, becomes crucial and equally as important the treatment of autism. Historically, treatment methods took an atomistic approach, focusing on behavior management, but a paradigm shift is underway from working with the child to working with the family as a unit seeking equilibrium at all levels of relationships within the family (Salazar, 2020).

The Mifne method

The Mifne method is derived from Bowlby’s (1969) attachment theory and Minuchin’s (1978) family systems theory, and it is based on the principles of the biopsychosocial model (Engel, 1980). The basic underlying concept of the therapeutic model is the view that the family is an organic unit. No matter what the etiology is, ASD affects the whole family. Therefore the Mifne method identifies the infant, the parents, and, in a broader sense, the nuclear family, as the focal point for

treatment. The program addresses the particular needs of the infant, diagnosed with autism, and each member of the family. The therapeutic environment attempts to encourage gradual evolution of the infant and each family member, toward individual and mutual growth. A unique aspect of the Mifne method is its application to the treatment of eating disorders of infants.

The Mifne method's underlying assumption is that learning, development, and socialization are functions of contact in early infancy (Winnicott, 1965). An infant with autism has a different understanding of his environment, which might pick up only part of the information around him and cause him to develop an unclear perception of his world (Alonim et al., 2007). An unclear situation is very frightening for a baby, especially if he is very sensitive. Most of the infants with autism are oversensitive, and carry fears (Alonim, 2013).

The Mifne method is a residential program with a duration of 3 weeks. Each family at the Mifne Center has an individual therapy program. It consists of two major components: (1) the infant treatment through reciprocal play therapy (RPT); and (2) the family therapy, briefly outlined below.

Infant treatment through reciprocal play therapy

The aim of the RPT, developed at Mifne, is to reinforce the infant's innate abilities, and their self-confidence, by means of enjoying and experiencing interactive play within a containing and supportive environment. It enables the infant to discover the sense of the self and the pleasure of human contact. RPT takes place in the therapy room, where the infant spends 8 hours daily with therapists, who alternate during the day, and the parents. RPT consists of attractive play, sensory play, emotional play, and cognitive play.

Family therapy

The work with parents is aimed at enabling them to broaden their ability to achieve an insight into themselves, to understand their own behavior as an outcome of the way they perceive themselves as individuals, and of their role as parents. In working with parents, the Mifne approach uses a variety of techniques; clinical meetings, individual and joint couple meetings, family sessions, feedback, and team consultation with the parents. Each parent is given the opportunity to reach insights into how they and their baby affect one another and to gain an insight into the attachment relationship between mother and infant, father and infant, mother and father, and the structure of the family as a whole.

The program addresses the particular needs of each family member and is designed to match their infant's developmental stage. Family therapy aims to give the family the opportunity to reflect upon themselves and their special infant, to get a better understanding of his and their needs and to be able to consider each step of their infant's treatment.

Monitoring and evaluation of the Mifne program

The treatment program is systematically monitored and evaluated through:

1. An initial assessment of the infant's level of attachment, level of eye contact, level of eating habits. The infant's functioning is rated at four levels: low, mild, moderate, and high.
2. The therapist's clinical reports, where the therapists record their observations at the end of each therapy session with the infant.
3. The Daily Evaluation Scale of Observation, which is completed by each therapist at the end of their session with the infant, to rate their functioning, on a scale 0–10, across four developmental areas, that is, engagement, play, communication, and functioning.
4. The summative Daily Evaluation Scale of Observation which is completed at the end of each day by the therapists by reviewing their clinical reports, the video recordings of RPT and their individual completion of Daily Evaluation Scale of Observation. The summative Daily Evaluation Scale of Observation are analyzed to evaluate the progress made at the end of first, second, and third week of treatment.
5. Parents self-assessment before and on completion of the Mifne treatment program across five dimensions: parents' interrelationship, parental confidence, parental overprotection, parental stress, and parental crisis.
6. Records of weekly meetings of the therapists with parents, when they review the infant's and their own progress.

(For further details about the Mifne program, see Alonim, Lieberman, Tayar, Scheigesicht, & Braude, 2020.)

With parental consent the RPT treatment is recorded, as it happens, and data is collected to evaluate the progress made by the child.

Tanya's treatment at Mifne Center

In this section, we discuss Tanya's and her family's therapy process and its impact on both Tanya and the family. We start by outlining the initial parental concerns about Tanya's development and eating, the assessment of Tanya's, and parental and family functioning. We then discuss the findings from qualitative and quantitative measures and their impact on Tanya and the family.

Parents' concerns about Tanya's development before treatment

In the letter sent to Mifne by Tanya's mother, the parents were concerned about their daughter's complicated development, but mainly about her refusal to eat. In a further interview with the parents, it was revealed that Tanya did not feel hunger and was unaware of the tastes and textures of different foodstuffs. Tanya used to be fed while she was asleep. After she had fallen asleep in their arms, her parents would feed her formula from a bottle, so she was not aware she was eating. The mother never let Tanya cry, because she could not bear it. She said she could not cope with the child feeling miserable. Prior to being admitted to the Mifne Center,

Tanya was referred to a Children's Developmental Unit in the Hospital, where she received a diagnosis of *Suspected Autism*.

Assessment of Tanya's development and functioning

The Mifne clinical team assessed Tanya's functioning by analyzing the home video recordings across three criteria, that is, (1) level of attachment, (2) level of eye contact, and (3) level of eating habits. These criteria were assessed at four levels: low, mild, moderate, and high. Tanya's functioning was assessed at low level across all three criteria. The assessment showed that, although Tanya was 12 months old, she was functioning like a 4–5-month-old baby. She avoided eye contact, her body was rigid and tense, and her fists were clenched. She did not react to tickling and did not smile; her face was screwed up unhappily. She did not like to be held or hugged by her parents or anyone else and recoiled from the touch of soft objects (such as furry animals, velvet or woolly material). She usually became very tense and stiff when picked up and held. She expressed her willingness or unwillingness by crying or whimpering. She would throw out her arms in a pushing or rejecting motion, when she did not want something. She expressed her lack of satisfaction or tiredness by turning over or lying on her back. Tanya displayed various repetitive behaviors, including moving her limbs, rolling her eyes in circle movements, or her head from side to side. She mostly uttered sounds of crying and shouting. She showed she wanted to eat by falling asleep in her mother's arms to be fed while she slept.

Assessment of parental and family functioning

On arrival at Mifne Center, the parents met with two senior psychologists for an assessment of their relationship and family functioning. The meetings consisted of a three-part process. Initially the parents provided a free report on their situation, then responded to a series of questions raised by the psychologists, and finally they provided a self-assessment of their situation across five categories, that is, (1) parents' interrelationships, (2) parents' confidence, (3) parents' overprotection, (4) parents' stress, and (5) parents' crisis. The self-assessment was made at four levels of functioning, namely, low, moderate, mild, and low. The assessment revealed a family in crisis. Parental confidence was low and parental overprotection high, parental stress and parental crisis were at moderate level, while parental interrelationships were assessed at mild level.

Both parents are gentle and sensitive people. The father is an introverted, "down to earth," concrete and practical person, while the mother is the dominant figure and the leader in the family. The mother is strict with their daughters, who are afraid of her reactions; the father is easier and more flexible with them. This is often a cause of conflict between the couple. For both parents, unresolved issues from childhood unconsciously impacted on their coping mechanism. As a coping mechanism, the father resorted into withdrawing and keeping busy with video games. Neither of the parents went out much. Both of them convey a sense of

closeness on the one hand, and yet loneliness on the other. The couple instantly realized that this was an opportunity to treat the entire family situation, apart from the treatment of Tanya, and they were open and ready for this.

Family therapy at Mifne Center

Tanya's treatment through reciprocal play therapy

Tanya's treatment started with RPT in the treatment room. The treatment room is quiet and relaxed space, free of external high sensory stimulation. During the treatment, there were many opportunities for intimacy by means of massage, play, and body contact. At the beginning of treatment, an agreement was made with Tanya's parents that she would no longer be fed in her sleep. Food would only be provided during her waking hours only.

Tanya's treatment and progress as recorded in the therapists' daily clinical reports

The therapist's clinical reports provide a picture of the treatment process and Tanya's gradual progress, during and on completion of the treatment program, across various behaviors of the ASD. These are briefly discussed below.

Eating: habits and amount of food—In the initial days, Tanya was offered her bottle of formula when she was awake. She refused to eat or rejected it, accompanied by retching. After 4 days, one of the therapists sat her on her lap and placed a small amount of the familiar pudding mixed with nonfruit flavoring on her lips. The food was put into Tanya's mouth only when she opened it and showed willingness to eat. Tanya gradually began to eat from the therapist's finger. Her menu was gradually enlarged to include blended vegetables, and soft porridge. At the same time, Tanya was placed on a chair with her head on the same level as that of the therapist. The aim of this process was to increase Tanya's awareness of eating. Tanya began to take food from a spoon. She looked from the spoon to the therapist's eyes, and the eye contact was intense and showed an awareness of the feeling of hunger. During the course of treatment, there was an improvement in Tanya's ability to bite, chew, and swallow. A few days before the end of treatment, she began to touch the mashed food. She showed an interest in the cookie she was given, held it in her hand and after playing with it for a while, tasted it.

Eye contact, facial and emotional expressions—As Tanya's confidence and her sense of security with the therapists grew, her eye contact with them gradually increased, too. In meetings with the parents, the mother reported a significant increase in Tanya's eye contact with her, when playing together.

Acceptance and reaction to people and objects—A week after their arrival at the Mifne Center, Tanya held out her arms for her parents to pick her up. When her father picked her up and held her close to him, hugging her, she gradually stayed in this position for quite a long time, feeling more comfortable and relaxed. During

the first days, Tanya recoiled from the touch of soft objects. In spite of this, these objects were offered to her from time to time. She gradually became interested in them; she became curious about simple objects and interested to try out what was offered to her. She started to develop preferences for different types of games by examining them.

Curiosity, concentration, initiative in play—During treatment, Tanya was put down on her stomach on the floor of the playroom and was gradually exposed to various toys such as balls, boxes, bottles, soft toys, bells and rattles, and to tactile material such as rustling paper, sand, water and soap, and body lotion. At first, Tanya lay on her stomach, looked at the toys with interest, paid attention to the sounds made, followed the objects with her eyes, made sounds, and gurgled. Tanya gradually began to move toward the toy that interested her. As treatment continued, Tanya discovered the possibilities offered by play. She showed the ability to understand a game. For example, when a therapist put rings on a tower one after another, Tanya lifted them off. After a few days Tanya started to display initiative. She pulled interesting objects towards herself and also tried to reach them on her own, pulling herself on her tummy. During the third week she mostly initiated interactions with the therapist by reaching out to her.

Vocal sounds and speech sounds—During the first week Tanya mostly uttered sounds of crying and shouting. During the second week a change set in; she uttered more frequently sounds of joy. During the third week Tanya began not only to express joy, but also to utter vowel sounds as well as a few syllables.

Repetitive behavior—During the first week Tanya displayed various repetitive behaviors, including moving her limbs, and eyes from side to side. In the second week, she only displayed one repetitive pattern: playing with her fingers. During the third week she did so rarely and no other repetitive behaviors were observed.

Physical contact and detachment—During treatment, the therapists would massage and stroke her face and other parts of her body either gently or roughly. As contact became established and Tanya felt more secure with the therapists, she increasingly enjoyed the physical touch and she expanded the variety of expressions for intimacy and body contact. After 10 days, the therapist taught Tanya how to turn into a sitting position. When Tanya began to sit up, she enjoyed this new situation; she had a better and wider view of her surroundings, which affected the way she played. She let the therapists pick her up in their arms and move around with her in the room, dancing and jumping. Following her increasing confidence in the therapists, she began to enjoy being rocked and swayed. As Tanya's skills and functioning increased her level of detachment gradually decreased.

Tanya's progress—findings from the summative daily evaluation scale of observation

Tanya's progress reported in the therapists' clinical reports is further supported by descriptive analysis of data, collected through the *Daily Evaluation Scale of Observation* over the 3 weeks of treatment, 22 days in total. Table 11.1 shows that, at the completion of the treatment, there was improvement across a range of

Table 11.1 Means, standard deviations, and overall progress of treatment for selected variables (N:22 days).

	First week		Second week		Third week ^a		Progress ^b
	Mean	SD	Mean	SD	Mean	SD	
Acceptance	0.71	0.76	2.86	0.90	5.38	0.74	6.0
Detachment	6.00	0.58	4.86	0.38	3.25	0.71	-4.0
Physical contact	1.29	0.49	3.00	0.82	5.38	0.74	5.0
Eye contact	0.71	0.76	2.29	0.49	3.63	0.52	4.0
Sounds	2.43	0.53	5.57	0.53	6.00	0.00	3.0
Initiative	0.29	0.49	2.00	0.00	3.50	0.53	4.0
Eating: habits	0.93	0.67	2.50	0.50	4.06	0.42	4.0
Eating: amount	1.14	0.90	3.14	0.70	5.38	0.52	4.0
Repetitive behavior	0.93	0.67	2.43	0.45	4.06	0.42	-4.5

^aCalculated on the basis of the average on all the days of treatment beyond the second week.

^bThe value noted, either a positive or a negative, indicates the difference between the average score on the first and the last day of treatment.

symptoms of ASD. Attachment underwent the greatest change, followed by physical contact, reduced repetitive behaviors, and reduced detachment. Eating (habits and amount and food consumed), eye contact, and initiative also showed progress at similar rate. The least improvement was recorded on sound production. The progress observed across these behaviors is visually represented in Fig. 11.1. It can be seen that there is steep and consistent decrease of detachment and repetitive behaviors as other behaviors improve, during the 3 weeks of treatment.

Nonparametric statistical analysis, Spearman Rho, revealed strong ($r > 0.90$) and significant correlations between a range of symptoms of the ASD. In relation to eating (habits and amounts of food consumed), there is a positive correlation with eye contact, initiative, and physical contact and a strong inverse correlations ($r > 0.90$) of eating habits and eating amount with repetitive patterns ($r = -0.941$, and $r = -0.903$, respectively) and detachment ($r = -0.982$, and $r = -0.946$, respectively). The correlation is lower but still strong between eating habits and speech sounds ($r = 0.830$). Whilst the correlation of these variables does not denote cause and effect, the triangulation of qualitative (Table 11.2) and quantitative (Table 11.1) findings are indicative of the impact of treating eating disorders on the improvement of other symptoms of ASD.

Family therapy

Family therapy started by addressing the key challenges and needs faced by each member of the family. The focus of the family therapy for the mother was to address her guilt and fear about Tanya. When Tanya refused to eat, the mother felt guilty because she thought that she failed her daughter. The therapy sessions intended to help the mother to differentiate between Tanya's desire to eat and her

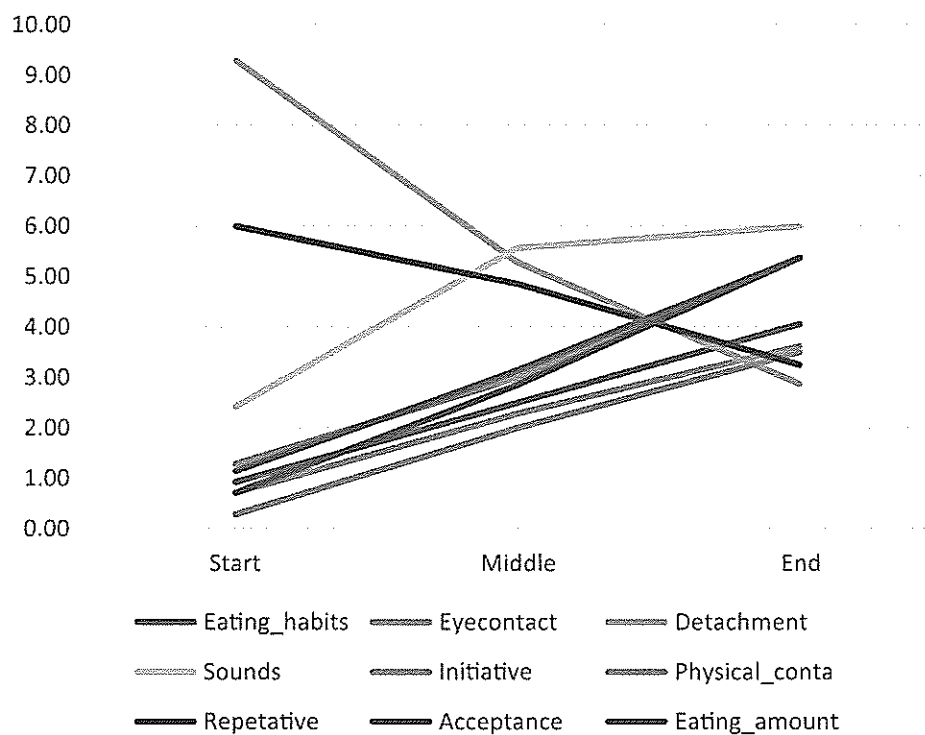


Figure 11.1 Visual representation of the progress made at the end of the first, second, and third week of treatment (22 days).

own sense of success or failure. The feedback sessions of the psychologists with the father dealt mostly with his passivity in the spousal relationship and how he could support his wife not only by expressing how he felt towards her, but in actual fact. The husband was aware of his wife's feelings of guilt and expressed empathy and support for her, saying "We are both in the same boat and we'll overcome this together." However, he was also aware that his wife was a strong and determined person and he took a passive stance in their relationship. The parents had the chance to communicate with each of the older daughters individually to understand their needs and talk about their relationships with them, an emotional aspect of which had previously been lacking.

Family progress during and on completion of family treatment

From the psychologists' reports and parents' own feedback during weekly meetings, it was evident that as family therapy progressed, the parents' couplehood improved. The mother became much gentler, more flexible, and begun to see and treat her husband as a partner. The father became more engaged with his family and got out of his withdrawing and isolating activities. With the flexibility they adopted as a result of the therapy, both parents were capable of continuing to stimulate Tanya's development. The mother underwent a process of learning how to get closer to her daughter, to enjoy being with her daughter, and was able to stay with her longer. She learnt to hug Tanya and not only when she cried. She also learnt that crying

Table 11.2 Spearman correlations matrix between variables and eating habits (*n* of session = 22).

	Eating habits	Eating amount	Eye contact	Sounds	Initiative	Physical contact	Repetitive	Detachment
Eating_amount	0.996**							
Eye contact	0.967**	0.960**						
Sounds	0.837**	0.841**	0.820**					
Initiative	0.962**	0.962**	0.949**	0.838**				
Physical contact	0.975**	0.970**	0.967**	0.858**	0.970**			
Repetitive	-0.955**	-0.949**	-0.974**	-0.813**	-0.958**	-0.954**		
Detachment	-0.989**	-0.981**	-0.978**	-0.865**	-0.958**	-0.977**	0.960**	
Acceptance	0.976**	0.971**	0.981**	0.855**	0.964**	0.984**	-0.964**	-0.988**

***P* < .001.

Table 11.3 Parental and family function before and after treatment at Mifne Center.

Parental/family functioning	Beginning of treatment	End of treatment
Parents' overprotection	<i>H</i>	<i>Mo</i>
Parents' relationship	<i>Mo</i>	<i>H</i>
Parents' confidence	<i>L</i>	<i>Mo</i>
Parents' stress	<i>Mo</i>	<i>L</i>
Parents' crisis	<i>Mo</i>	<i>L</i>

Rating: *L*, low; *M*, mild; *Mo*, moderate; *H*, high.

does not necessarily express unhappiness, and that Tanya is able to cope with crying. She started increasingly to provide Tanya with challenges.

The father experienced a real connection with Tanya for the first time. In the past, he felt that Tanya ignored him and he was afraid of her. He thought she did not understand and so he never spoke to her. In the wake of many hours of treatment and their staying together for many hours in a family atmosphere, he began to get to know her better. He started to initiate contact with her and became very excited when she let him hug and kiss her. He became very gentle and kind to her. He said that Tanya was beginning to feel more secure and more open with him. The way he became closer to Tanya and also in the end succeeded in feeding her gently, gave them both a great deal of confidence.

The final parental self-assessment of the progress made during therapy showed that parental overprotection was reduced from a high to moderate level, while parental level of stress and crisis were also reduced from moderate to low levels. Parental confidence increased from low to moderate level and their relationship improved from moderate to high level (Table 11.3).

Family follow-up by the Mifne clinical team

Initial follow-up communication of the Mifne clinical team and the parents revealed that Tanya was doing well, and the girls played a lot with her. However, the parents were in conflict regarding the setting of limits. There seemed to be tension between them, as the mother gave in to Tanya. She was afraid of losing the contact she had made with her daughter. She had gone from extreme strictness to giving in too easily.

Further communication confirmed that parental conflicts about their interaction with Tanya reduced. The parents were amazed at Tanya's abilities and her progress. They highlighted that "she stays on her feet for a minute; has high-level eye contact; when visitors come in, she looks at them, holding out her arms and she crawls to the door to see who is coming. All is well where eating is concerned; she eats everything we offer her." The father had chosen to stay at home with his daughter for a few months and helped her make progress. By the age of 18 months, Tanya was able to close the developmental gap between herself and her peer group.

Conclusion

Infants' relationships with the world are mediated via their mouths (Winnicott, 1965). In the initial months of life, representing the neurophysiological regulation stage, feeding is a central factor in the infant's ability to regulate himself. A lack of regulation lies indeed at the root of ASD pathology (Courchesne et al., 2011; Yirmiya & Charman, 2010). Contact and communication are integral components of the regulation process. Owing to the primal instinct of the need to eat and the elements of communication it involves, basic anxieties are channeled into this need, which may spread to other areas of functioning (Alonim et al., 2007).

Tanya's assessment by the clinical team at Mifne Center concurred with the diagnosis of suspected autism, conducted at the Children's Developmental Unit in the Hospital. Tanya displayed a wide range of behaviors at social, emotional, and communication developmental areas, including severe eating disorders. The latter were linked with sensory difficulties and associated with eating habits reinforced by parental concerns of inadequate food intake.

According to the findings of this case study, obtained via the qualitative and quantitative instruments, the more Tanya became willing to eat, the more interest she displayed in her surroundings, increasing her level of attachment. Both qualitative and quantitative measures have shown that, at the end of the treatment, there was improvement across developmental areas to varying degrees. From the descriptive statistics, the greatest improvement was revealed in increasing acceptance of people and physical touch and at the same time reducing detachment and repetitive behaviors. Further, parametric statistics revealed strong correlation of eating disorders (habits and amount of food) across various symptoms of the ASD. Whilst correlation between variables does not indicate cause and effect, the fact that the treatment focused on Tanya's eating disorders and on the basis of triangulation of qualitative and quantitative data, it is reasonable to argue that (1) as eating improved, a parallel improvement was observed in other symptoms of ASD; (2) family therapy was equally important; as the findings at the conclusion of the treatment and posttreatment reports have shown, shared parental understanding and responsibilities, and family cohesion brought about long-term changes in the family dynamics and functioning that strengthened Tanya's capabilities.

Consistent with previous research (Alonim, 2004; Alonim et al., 2020; Massie, 2007; Pierce et al., 2011), this case study has demonstrated that treatment at the early stages of life is crucial in improving an infant's functioning in other related developmental areas, while a family oriented and focused treatment minimizes stresses that ensures long-term improvement. In the wake of the support provided by the findings of this study, we may say that there is an association between the breakthrough in the infant's eating patterns and her ability to respond to her caregivers, to develop contact and social communication in a less stressful environment, stresses that ensures long-term improvement.

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