



EMBODIMENT CASE STUDY

Made by Gabriella Kovácsné Jánosi

Hungary 3519 Miskolc, Brassói u. 54.

janosi.gabi99@gmail.com

+36-30-532-7160

February 2024

1. Anamnesis

T. was born well ahead of schedule, at 25 weeks, weighing 950 grams. After the onset of pains, the mother was admitted to hospital and although they tried to give the mother an infusion to prevent labour from starting, T. arrived within an hour with spontaneous delivery (Apgar 6/7/8 status.) He required ventilatory support, was placed in the Neonatal Intensive Care Unit, was placed on a ventilator. RDS with intrauterine infection was confirmed, she required intubation and mechanical ventilation on day 2 of life. On day 12 of life, she developed symptoms of pulmonary haemorrhage and was extubated at 4.5 weeks of age. Pneumonia with sepsis occurred at 9 weeks of life. She was transfused 7 times. His retinopathy did not require instrumentation. Ventricular hemorrhage described on cranial ultrasound was absorbed.

She did not learn to suckle, when she was bottle fed, she was given formula milk until she was 6 months old. She was checked in surgery for a hernia of the inguinal hernia, but no surgery was performed. Hearing tests showed his hearing to be intact.

He was discharged after 3 and a half months in hospital. She was taken into care by the Department of Prematurity and Ophthalmology. At the age of 6 months, he started early development and was massaged and exercised using the vortex method until he was 1 year old.

His movement development was a little delayed in time, he lifted his head, turned, crawled, but his crawling was not in line with the developmental movement stages. He started at 16 months. He started to say words at one and a half years old and has been expressing himself in sentences continuously since he was 2 years old. In the language area, his speech development is characterized by a speech impediment, increased need to speak and to communicate, and he often gets stuck on a thought. His oral expression is still underdeveloped, he has difficulty expressing himself verbally.

T. has regular check-ups at the County Expert Committee. Based on the last review results in March 2023, Zala is considered to have special educational needs and cognitive abilities in the low average zone. He was recommended to continue his pre-school education, to postpone his enrolment for 1 year and to participate in additional educational habilitation-rehabilitation sessions.

According to her mother, she was a very sensitive baby. She was particularly bothered by loud noises, which still to this day cause her overstimulation, so with the help of her grandmother she managed to stay in nursery until lunch.

I have known T. since he started kindergarten at the age of 3. As a travelling teacher, I go out to the village where they live and where he goes to kindergarten. /T. már nagycsoportos óvodás 6 éves elmúlt.

At first he was an extremely scared, crying little boy. He could stay in the task position for 10-15 minutes. These minutes mostly consisted of some kind of movement activity, gentle rocking with songs, sayings, climbing on a piece of equipment (sponge bouncer), sliding down.

II.

Sensory test

a, Diagnosis of tactile sense and ego-sense disorders

T. is a very sensitive boy, even by his appearance. He is shorter than his peers, slim and fragile, with very fine white skin with translucent veins and thin blond hair.

He is very sensitive to the cuffs sewn into the neck of his clothes, which his mum always cuts out of his T-shirts. When she was small she ate very little food, barely anything except a few soups, started eating solids relatively late and found it harder to chew. When she was younger, she found it difficult to cut her nails, and it was harder to get her to wash her hair. She was potty trained at 3½ years old, but she also wet herself several times during the day and night (she still has a very strong Galant reflex). She is very sensitive to pain, has a very low threshold for stimulation, and cries out at the slightest pain. For example, if the ground presses his knees when he crawls on all fours.

His behaviour is also characterised by hypersensitivity. In the past, he has strongly resisted more challenging exercises, such as crawling on higher sponge walls, climbing. When encouraged to do so, he would say during the exercise "this is very dangerous, if I fall I will hurt myself".

In her kindergarten group, she used to be afraid of children who were too loud and boisterous. He was afraid that they might come near him or touch him at any time, which made his behaviour withdrawn and timid. He found it harder to make friends or start new things. His self-confidence and trust in others was low.

b, Diagnosis of perception of life and sensory disturbance

His appearance suggests that he has an overactive sympathetic nervous system. He is smaller than his peers and has a fragile build. His complexion is slightly pale and his limbs are often cold. He has not slept after lunch for a year. His sleep at night is not always restful, as he often does not sleep through the night and usually wakes up early. He has been very fussy since he was a little boy, and has had difficulty in getting him to try new foods and new tastes. He does not like to have several colours and textures on his plate at the same time, and meat and side dishes can only be served separately. He does not eat cooked vegetables because he does not like their consistency.

c, Diagnosing disorders of self-motion and speech perception and the impact of residual infant reflexes

His muscles are flabby, relaxed, her shoulders slope slightly forward, her feet turn inwards. A slight tremor is visible on the hands when effort is exerted. Her mouth is often open and she breathes through it, which may be due to the fact that she still cannot blow her nose. /After a tonsillectomy last summer, his tonsils have grown back. Because of her frequent upper respiratory illness, on the advice of an ENT specialist, she is now planning to have her nose and now her tonsils removed.

d, Diagnosis of balance and auditory sensory disorders

Its gait is slightly broad-based, with the whole body turning in the direction of the head when the head is turned. Previously, he was very afraid of any high-mobility task, afraid to sit in the balancing platform or even climb a low small climbing frame. He did not want to slide, when walking up and down stairs he required an adult he trusted to hold his hand. Her speech understanding is still poor, she has difficulty picking out auditory information from background noise. Sequence perception and rhythmic movements are still challenging for him. Moving hands and feet together is still typical. Hand dominance is well established, but he still often avoids crossing the midline and uses both hands alternately, depending on whether he is working on the right or left side of the body.

III. Physical activity assessment

1. Checking the main muscle groups and balance (2023.10.16)

a, Horseshoe step and balance

Generous, quick execution, as he tries to be more precise and slow down his pace, he steps off the line, eyes downcast, hands forced, mouth and tongue moving together.
/4 points

b, Frog-walk (walking on the outside of the foot)

Monkey-like posture, stiff stride, not walking completely on the outside of the foot, strong forced grip on the hands, face, mouth together, crossed hand-leg movement /2-3 points

c, Standing on one leg

Right leg is the chosen leg, you can keep your balance for 2 seconds. Compensation: hook the held foot into the foot on the ground.
It can stop on its left foot for 1 second.

d, Climbing /observation of higher motor skills

When moving forward, the use of the limbs is already opposite, but the trunk is still held in a disintegrating, swinging movement at the hips, lifting the lower leg off the ground. At a slower pace, or when moving backwards, he switches to same-sided hand-leg use.
/3 points

e, Eye muscle test

It is difficult for him to keep track of the pen for even a few seconds. He would move his head involuntarily with his gaze. Especially following to the right is difficult for him, his eyes "jump" from the midline.

f, Head position

Active head lift: it is difficult for him to do the exercise, the neck muscles are tight, the head falls back, the jaw tightens, the shoulders are hunched, he can only lift his head with his shoulders. /4 points

Passive head lift: the head moves backwards, but the arms can now be kept extended /2 points

Observe the transitions between movement phases: sitting down from a standing position by crossing your legs to the side, "touching the ground" with both hands to the side, while landing on the floor with one of your sitting balls, and then pushing yourself up from there to a sitting position. Like the "Little Mermaid Picture", but leaning more to the side, with the crossed leg pulled to the ground and the other leg slightly bent at the knee. From belly to back with knees drawn up and back, arms retracted, from a slightly curled posture, turns over sideways.

2. Reflex test - summary of test results

- **ATNR**

- Quadriplegic position: when the head is turned, the elbow on the opposite side bends sharply, accompanied by a movement of the hips and shoulders /3 points
- In the standing position: arm movement is observed up to about 45 degrees in the direction of head rotation. /3 points

Signs of a reflex in T.: activities that require seriality are difficult, and he even mixes directions on his own body, in space and in plane. Spatial orientation is not easy for him. His sense of balance still needs to develop. He has more difficulty in understanding text examples related to numeracy. He does not like eye-hand coordination tasks. Difficulty in creating patterns from parts /difficulty in part-part perception, shape-background discrimination

- **STNR**

- Stretch: when raising head, hips move back and sit on heels /3 points
- Bend: and when head is raised, it rises from palm to fingers /4 points

Signs of STNR in T.: poor posture, stooping, shoulders forward, wearing glasses, even less independence, needs external guidance. Problem solving is not independent.

- **TLR** - He lurches violently off balance, wobbles, steps out, knees lock in compensation as head leaves midline. /External appearance of reflex activity: Zalan's posture is slightly hunched, characterized by a sloppy posture /3 points

Signs of TLR: His muscles are hypotonic, he is afraid of heights and depths, he tires easily and quickly, his feet are in W position when sitting on the floor, he has more difficulty in imitating more complex movements

- **Moro**

- Lying down: arms do not move, breathing changes /3 points
- Standing position: the arms move while the body tenses for a moment.

/3 points

Signs of the Moro reflex in his behaviour: poor sleeper, only able to fall asleep with a family member, his mother or grandmother. Sometimes he wakes up during the night, wakes up early in the morning, but gets tired relatively early in the morning. However, he does not sleep after lunch. In places where there are many people, she is still shy and withdrawn. Her sense of balance is unstable, and her coordination of movements is even less coordinated. Her immune system is weak, she is prone to infections and often suffers from upper respiratory diseases. He is hypersensitive to light, noise, and smells, and is also intensely sensitive to the movement of people around him, fearing being bumped or hit. He is easily distracted. He has difficulty catching the ball, as if he is afraid of the ball. His confidence needs to improve.

- **Gallant reflex:** positive

She is very ticklish, I hardly touch her back, she is already "wiggling", giggling. The lower body swings to the affected side, min. 30 degrees. /3-4 points

Nevertheless, he does not experience the touch on his back as an unpleasant sensation but asks for it to be repeated.

Signs in T.: hypersensitivity, especially in the back, poor posture, easy fatigue, difficulty maintaining sustained attention, poor short-term memory, difficulty sitting still, constantly moving around in a chair.

- **Search-suck reflex:** positive

His behavioural symptoms: He is very selective in his eating, finding it difficult to try new textures and tastes. His manual dexterity needs to improve, his pencil grip is irregular. He has difficulty with speech perception and comprehension, and therefore has difficulty in social situations.

After reviewing the results of the tests, it became clear that in his case all reflexes are involved and we are dealing with all of them.

IV. Exercises

- *September 18* Meeting with the mother, conversation, taking a detailed anamnesis "Contract for therapy". We agreed to meet 3 times a week in the nursery for the first 2 weeks, where we will start working together with Embodiment exercises. The mother works at the nursery, so she had the opportunity to come to the development class in the mornings, so she was present during the teaching of **the new exercises**, observing the way of helping them to practice properly at home.
- *October 16.* Assessment of physical condition, reflexes
- *25 October* Teaching **windmill** drill - both sides
- *November 6* Windmill exercise + **Reincarnation**
- *20 November* Windmill + **Hason head translation** + Reincarnation
- *December 04* Windmill + **Hason head lifting** + Hason head turning + Reincarnation

- *18 December.* Windmill + Hason head lifting + Hason head turning + **Hason lemniscata** + Reincarnation
- *January 08* Windmill + Riding on the head + Riding on the head + Riding on the head + Riding on the lemniscata + **Turning backwards through the side, Turning backwards through the side Returning to the belly** + Reincarnation
- *22 January* Windmill + Rear Head Lift + Rear Head Turn + Rear Lunge + Side-to-side Back Turn + Side-to-side Belly Turn + **Gallant Reflex Dismount exercise /Hips down, opposite elbow slightly raised/** + Reincarnation

Further exercise planned:

1. Lying on your back head inversion
2. Lying on your back in lemniscata
3. Lying on the back with knees locked and turning right to left with head together
4. Lying on the back, opposite knee grip, with head rotation
5. Fish Boy

Justification of the chosen practices

1.I chose the Windmill exercise first because the reflex test confirmed the existence of all infant reflexes, and this Embodiment exercise helps to break down all reflexes (the first 2 weeks we did only this exercise with Zalan)

2. Reincarnation exercise: useful for turning the foot inwards in the opposite direction (C.C. posture), and also affects Galant, Moro and ATNR (started from week 3)

3. Head lifting on the grass: Galant, TLR, Moro (from week 5)

4.Prone head turning: ATNR (from week 7)

5. Low-lying 8: ATNR, STNR, TLR (from week 9)

6. Belly side to side turn to back, Back side to side turn back to belly:

tactility, balance, TLR (from week 12)

7.Gallant reflex reduction exercise/ hip down, opposite elbow slightly lifted

Gallant, tactility, crossed side movement (from week 14)

PLANNED EXERCISES

8. Lying on your back, head turning: Galant, ATNR, TLR

9. supine 8: Galant, ATNR, STNR, TLR

10. Lying on back, knees turned, head together: balance, TLR, ATNR

11. Supine opposite knee grip, with head rotation: ATNR, TLR

Pisces 10: Balance, Suck-mark reflex, Moro, TLR, ATNR

V. Summary

As T. does not like unexpected new situations and novelties, I always tried to prepare him in advance, introducing new events slowly. I felt it was important to create a very safe environment for him, where he could be present in peace and with complete confidence. We also often used the knee dynamic "Silhouette" exercise, creating a protective shell around Zalan, which he later requested himself.

At the beginning of the Embodiment exercises, her mother, who also works at the nursery, was present 3 times a week, so we had a good opportunity to discuss how to do the exercises. Nevertheless, it was often necessary to motivate the mother to have the stamina to practice the exercises every day for 5-10-15 minutes. In such cases, I always tried to restate the longer-term goal: we would like Zalan to be more confident, free, enjoyable and open to new experiences in the kindergarten and later in his school and wider environment.

The external conditions in the development room, which are important **for the maturation of the sense of touch and the sense of self**, are fortunately ideal, because we can do the exercises in a nice, bright, spacious gym. In the morning, just as the sun is coming in and he is enjoying finding his place in the "ray of light", he automatically spreads the gym mat there.

In his case, I made sure that the expectations and challenges were not too direct, we had a lot of fun, and I tried to create a happy, free atmosphere to ease his initial anxiety and possible reservations about the new exercises. The blankets in the room to keep him safe were a good help. For rest exercises, I lay a soft fleece blanket over him, which envelops him as a warm protective blanket. She smiles pleasantly. Her clothes have been changed from baggy, baggy tops and trousers - after consulting with mum, she is a partner in this too - to slightly tighter, more layered, wrap-around clothing.

RESULTS: I was delighted when I started to find that they were already happy to come to the developments. During our sessions, she became very fond of the massage through the cloth, where she felt more and more comfortable with the firmer touches after the initial almost breath-like massages. As her balance has improved, she is proving to be more skillful and "flexible" in the change of direction exercises, which she initially disliked because she would almost "freeze" if she had to suddenly change pace or direction.

T. used to find it difficult to maintain eye contact, which is no longer the case. He can stay on task for much longer and is able to focus his attention better. He is more interested and is usually more motivated when tackling more difficult and challenging tasks. Her self-confidence has improved and her relationship with her peers is more balanced. He is not afraid of children, except for one or two loud, larger boys, whom he tends to avoid, but no longer runs away in panic. He has made friends, after 4 years he no longer goes to nursery crying, and even when he is ill he is no longer happy to stay at home because he is "bored", as he says. His symbiotic relationship with his mother seems to be dissolving. He is not a fan of change these days, but he is increasingly accepting it. He has become more flexible, is not so thrown off

balance by unexpected situations and is better able to cope when something happens that is different from what he expected. /E.g. in watercolour painting, colours flow into each other and the intended form is transformed and changed. / Her diet has also become more varied, she now eats a few of the vegetables and fruits she had previously refused.

His game is nowadays characterised by his willingness to participate in role-playing games. When we build "terrain", he is very keen to design and build creatively, and is happy to try out the less "dangerous" courses.

She loved the foot and leg massage. His tactility has also improved a lot, as while he used to be reluctant to play with sand or clay because he didn't like to get his hands "dirty", he now explicitly asks for it and enjoys these activities. His body language has also improved a lot and his behaviour has become much more confident. Previously, he never drew people on his own, but when he did, stick figures were the result. In his latest drawing, from January, I was surprised to see that the manikin's arm is two-dimensional, and the drawing is more detailed, not just 2 eyes with dots, but the senses have appeared and the proportions are much more lifelike than in his previous drawings. He enjoys playing with clay and helps out at home when his mum or grandmother bakes cakes to knead dough. Her drawings are also more imaginative. For example, while she used to draw only cars, she has now added HOUSE as a new shape.

An important objective for the maturation of life and thought-feeling was to strengthen the Life Rhythms.

In November, the kindergarten teachers and I personally had the opportunity to observe that he is getting more and more involved in the play activities of his peers /Pl, pretending to go for a car ride, on a trip, on a picnic, etc.

In a two-person situation - even while doing tasks - he typically talks a lot, recalling ad hoc memories, memories of home or summer events, which he shares immediately. He still has difficulty delaying, but the time and scope of his attention span is much longer than in the autumn. He has also become curious about the thoughts of others, e.g. he is able to listen to his buddy's ideas.

In our meetings, there are certain frameworks that are designed to provide security and predictability. T. likes to tell us about his mood now, and his body language is quite revealing, after which he tells us what makes him feel happy or sad that day. Let's also play a game where he tries to guess from my facial expressions and posture what kind of mood, I'm in. We sing a lot, or I bring rhythm instruments or a tongue drum to our class, which he himself is happy to play, trying to play back short melodies (4-5 notes in a row).

He also likes to plan longer and increasingly complex terrain, where he has to keep the current rule in mind, remembering which colour and shape of movement sponge he has to go through with which animal imitation movement. They have pets at home - dogs, cats - which they help feed. Although his parents used to be very scared of him and wouldn't let him into the garage, nowadays he asks his dad to help him with his fitting and tinkering. He loves to go on trips with his family, and he likes to talk about his fishing experiences.

A further goal may be to gradually involve him in gardening and housework at home, as these activities will also strengthen his sense of self-movement and speech.

To develop a sense of balance and auditory maturity, an important objective was to build her confidence after creating her sense of security. In the autumn, we carefully introduced rocking, spinning and balancing elements into the outdoor play. Alternate foot traffic up and down stairs. We started playing rhythmic games with balls. At first it was very difficult for her to keep her attention, gradually we could only go from very slow execution to normal tempo. The other problem was to find the way from a too fast, frantic tempo to the middle way, which still needs to be matured by his sense of task and perseverance. We reinforce the experience of gravity by carrying heavy objects. e.g. we "carry" the "sponge landscape elements" in the room together during our construction work /These tend to be large but not too heavy elements but moving them gives her a sense of pride: sensing her increasing strength to carry an element on her own, she moves it, effectively intervening to change the space. To get a feel for gravity, we started jumping from 'high' places, which he has now come to like and has become one of his favourite activities.

Her courage is matched by her confidence and openness towards children.

The positive changes in his behaviour are not only confirmed by the kindergarten teachers and his immediate family, but according to his mother, other old acquaintances in the village have also noticed that T. no longer hides behind his mother during their meetings but has become much braver and even talks to them in the evenings.

I too am delighted to be able to contribute to his personal fulfilment through the Embodiment practices, and I hope that the visible signs of progress will continue to give T. and his family the stamina to continue with the practices.