

COLLECTION OF THEORETICAL CONCEPTS



**MARTA
AGAINST THE TOILET**

© 2024 by EarlyBrain Partnership

This publication, "Collection of theoretical concepts for the book Marta against the toilet" is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (CC BY-NC-SA 4.0).

You are free to:

- Share – copy and redistribute the material in any medium or format.
- Adapt – remix, transform, and build upon the material.

Under the following terms:

- Attribution – You must give appropriate credit, provide a link to the license, and indicate if changes were made.
- NonCommercial – You may not use the material for commercial purposes.
- ShareAlike – If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-sa/4.0/>.



**Co-funded by
the European Union**

This project has received funding from the European Union's Erasmus+ programme under grant agreement No 2022-1-ES01-KA220-ADU-000088960.

The views expressed herein reflect those of the author and the Earlybrain consortium; the EU/Commission is not responsible for any use that may be made of the information it contains.

This document includes the main theoretical concepts addressed in the book "Super Marta Against the Toilet". For each of the concepts an outline is followed including definition, clinical characteristics, how it is reflected in the story and bibliography.

Table of Contents

CONCEPT 1: COGNITIVE INFLEXIBILITY: CHARACTERISTICS AND IMPACT IN THE DAY TO DAY	3
Concept	3
How to observe in the story	3
Bibliography	3
CONCEPT 2: EVOLUTIONARY DEVELOPMENT OF THE CHILD IN TERMS OF TOILET TRAINING	4
Concept	4
How to observe in the story	5
Bibliography	5
CONCEPT 3: BEHAVIOUR MODIFICATION (TOKEN ECONOMY)	6
Concept	6
How to observe in the story	6
Bibliography	7
CONCEPT 4: WHAT ARE VISUAL CUES AND HOW TO USE THEM	8
Concept	8
How to observe in the story	8
Bibliography	8
CONCEPT 5: SENSORY HYPERSENSITIVITY TACTILE	9
Concept	9
How to observe in the story	9
Bibliography	10
CONCEPT 6: INTENTIONAL WITHHOLDING: POSSIBLE CAUSES AND CONSEQUENCES	11
Concept	11
How to observe in the story	11
Bibliography	11
CONCEPT 7: ANXIETY AND/OR PHOBIA, WARNING SIGNS	12
Concept	12
How to observe in the story	12
Bibliography	12
CONCEPT 8: OPTIMAL DIET TO FACILITATE INTESTINAL TRANSIT	13
Concept	13
How to observe in the story	13
Bibliography	13

CONCEPT 1: COGNITIVE INFLEXIBILITY: CHARACTERISTICS AND IMPACT IN THE DAY TO DAY

Concept

One frequently observed behaviour of children with autism spectrum disorder (ASD) is inflexibility in thought and behaviour. Inflexibility is mostly a result of and symptom of anxiety.

'Cognitive flexibility' can be broadly defined as the mental capacity to adapt our behaviour and thoughts to different and novel situations and contexts. Cognitive inflexibility occurs when the child is unable to consider alternatives to the current situation, alternative viewpoints, or innovative solutions to a problem. For example, they will have difficulty in flexibly adapting to changes in routines. This is because a child with ASD or mental disability tends to view things in "either-or" terms (e.g., things are either right or wrong, good or bad). They want concrete, black and white answers to a query/problem/issue. "Grey areas" of life are very uncomfortable and novel situations may often produce anxiety.

Children may be averse to change in general, resulting in behaviour that may be considered as 'oppositional' and can manifest in frustration and/or emotional meltdowns.

Hence, facts and rules are points of guidance for children with intellectual/developmental disabilities. They help to frame a situation and give them answers to changing circumstances.

How to observe in the story

Martha is not used to pooping on the toilet. She is accustomed to doing this in her diaper and is having difficulty in adapting to the new method. The bathroom is not a space where Martha feels safe or relaxed. Too much change is occurring!

She is scared that a part of her is lost when the poop comes out. To ease this fear, her parents can explain that it is a human need to poop: they do it too, and nothing bad happens!

Martha is worried that toilet time will take away from play time, an activity she enjoys a lot and doesn't want to give up. She is used to having a scheduled day and cannot understand when the toilet time would fit in her routine.

Martha has never worn underwear, but only diapers. This is another thing which will have to change, and she is quite fearful of it. It is important that Martha notices that

the underwear is dry and should remain as such, unlike the diapers which can absorb the pee. Her parents can go shopping and pick some underwear she likes, for example with her favourite cartoon characters, to make her feel more excited about this new process.

Bibliography

[Cognitive and behavioural flexibility: neural mechanisms and clinical considerations | Nature Reviews Neuroscience](#)

[My ASD Child: Cognitive and Behavioral Inflexibility in Kids on the Spectrum \(myaspergerschild.com\)](#)



**Co-funded by
the European Union**

This project is co-funded by the Erasmus+ programme of the European Union under grant agreement No 2022-1-ES01- KA220-ADU-000088960.

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

CONCEPT 2: EVOLUTIONARY DEVELOPMENT OF THE CHILD IN TERMS OF TOILET TRAINING

Concept

Toilet training allows children to develop a huge sense of independence as they are in control of going to the toilet themselves and don't require to change their nappy.

Gradually they become confident in themselves every time they go on the toilet as they know they can do it by themselves.

Toilet training is a milestone in both the toddler's life and the parents' life. It's a time where the child is starting the process of being able to take care of their own hygiene and the parent's process of seeing how much they have grown and developed.

As all children are different, there will be different times to start using the toilet. Toilet training can be a stressful process both for parents and children and although it's expected between 2 and 5 years, there's no specific age for toileting independently. The control capacity is achieved gradually, first during the day, after during the night.

The toilet training can be summarized in some different stages, children deal with:

1. They pee and poop in the diaper, without showing any interest in the subject.
2. They warn that they were made after they are dirty.
3. They warn while they are evacuating their sphincters.
4. They register the physiological need to pee and poop and can warn before.
5. They feel like it, they warn and get to the bathroom without it escaping. They can wait.

Being physically and mentally ready isn't the only factor involved. Motivation is key, too. Here are a few signs the child is ready to toilet train:

- Child can hold urine and stay dry for at least two hours. This indicates that his bladder muscles are sufficiently developed to store urine.
- Child recognizes the physical signals that he has to go and act on them before anything comes out.
- Child can pull his clothes up and down by himself.
- Child demonstrates a desire for independence and shows an interest in imitating others' bathroom habits; talks often about going to the toilet or try



interest of visiting it. Increases his interest by trying new fun grown-up underwear.

- Child's nappy is dry most of the time of feels uncomfortable with diapers.

Toilet training can last a couple of months sometimes takes throughout a year. The average length it takes toddlers to learn the process is about six months.

Some regression could be presented according to the child story and emotional maturation.

[How to observe in the story](#)

In Marta's story we can truly observe how toilet training could be stressful for parents and children too, facing unforeseen obstacles to an easy achievement of autonomy.

Marta's bladder muscles are probably mature and ready for storing urine and control when to release; as described in the story, in the first times, during the day, Marta is able to pee in the toilet with few accidents.

It seems to be harder for her to poop without diapers, as demonstrated when she does it during the night, when she feels more secure about pooping in the diaper.

Mum's expectations do not coincide with Marta's learning process; and this raises her anxiety and her fears related to toilet independence and the maturity in holding and letting go pee and poop. The consequence is a regression: Marta became more and more reluctant to using the toilet altogether. She would pee and poop only when her mom put a diaper on her at night.

After several attempts Marta's mum came up with some devices that helped Marta during her toilet training. She invited Marta to visit the toilet when she felt the urge. Then she trained her with exercises to strengthen her tummy and help her push; so, they had so much fun together. Moreover, Marta's mom read her favorite stories to make the bathroom a pleasant place.

Marta finally became comfortable sitting there reading books, without any pressure, relaxing and managing and knowing how to press to push out her poop.

It's clear enough how important it is for the protagonist of this tale reaching out an emotional security dealing with this growth issue.

[Bibliography](#)

<https://tigerschildcare.com/>

<https://readykids.com.au/is-toileting-a-developmental-milestone/#:~:text=Toileting%20training%20is%20a%20developmental,they%20should%20be%20toileting%20independently.>

CONCEPT 3: BEHAVIOUR MODIFICATION (TOKEN ECONOMY)

Concept

For children with Autism Spectrum Disorders (ASD) and other disabilities it is very important the construction of healthy routines and behaviours. To teach them new behaviours, is necessary to use a specific training.

The most popular and effective method in this field is the token economy.

A token economy is a system used in behavior modification to provide positive reinforcement to a child. It is designed to teach them what behaviors are desired and which are not. Token economies are used as a method of strengthening a behavior or increasing its frequency.

A token economy increases desirable behavior with the use of tokens. Individuals receive tokens immediately after displaying desirable behaviors. The tokens are collected and later exchanged for a meaningful object or privilege.

The token economy would be applied as follows:

1. Identify the desired behavior(s)
2. Give that behavior a certain score using tokens (stickers, numbers, letters, etc.)
3. Assign a prize (chosen by the child) a specific amount of tokens
4. Each time the behavior is carried out, give the token
5. Give the prize when the established tokens are achieved.

How to observe in the story

In Marta's story, using the toilet poses a considerable challenge for her as it is not simple for her to do it naturally day by day. However, it is an expected situation and it needs to be faced in some way.

Marta's mom implemented a reward system to help her conquer her fear of using the toilet, giving her a small star each time she successfully peed, and if she collected stars throughout the day, she could choose a special activity for the evening. Encouraged by this success, the star incentive was extended to pooping as well, and with various supportive techniques, Marta gradually became comfortable using the toilet for both peeing and pooping. Earning a star after each successful visit to the toilet brought immense joy to Marta, as it meant extra playtime with her mom, making her happiest.



The stars (tokens) are collected and exchanged for the privilege to play more time with her mom.

This very simple gimmick/method contributes to reinforce a desirable behaviour and encourage Marta to its repetition in the long term.

[Bibliography](#)

www.sbsaba.com/staying-creative-with-token-economies-during-behavior-modification/#:~:text=Simply%20put%2C%20a%20token%20economy,behavior%20or%20increasing%20its%20frequency.



CONCEPT 4: WHAT ARE VISUAL CUES AND HOW TO USE THEM

Concept

Many children with intellectual and/or developmental disabilities often struggle with verbal communication. Visual cues are a useful and effective tool to enable communication in a non-verbal way. Examples of visual cues may include pictures, videos or illustrations which show what is going to happen, what is needed, or what is to be expected. They can be used in most situations, can be adapted, and made in a portable format.

These characteristics mean that it may be challenging for your child to use their words to express the need to go to the bathroom. It is very important to help children with limited verbal abilities to signal their need to use the toilet to avoid bowel problems, constipation etc.

How to observe in the story

Martha has great difficulty overcoming fears and the toilet was a particularly stressful situation as Martha interpreted pooping as losing a part of herself, in addition to that she also found it unpleasant because of the smell and the sensation. So, Martha would only poop when in her diaper while sleeping. To help Martha overcome her fears, her mom came up with a plan: They would flush the poop from the diaper down the toilet and say goodbye to it, this way Martha would visually understand that it is a normal thing that does not represent an issue or a danger.

Bibliography

<https://brighterfuturesforchildren.org/wp-content/uploads/2020/06/Activities-using-visuals-.pdf>



CONCEPT 5: SENSORY HYPERSENSITIVITY TACTILE

Concept

Tactile sensitivity or hypersensitivity is an unusual or increased sensitivity to touch that makes the person feel peculiar, noxious, or even in pain. It is also called tactile defensiveness or tactile over-sensitivity. Like other sensory processing issues, tactile sensitivity can run from mild to severe. It is thought to be caused by the way the brain processes tactile input. For these individuals, touch makes the person feel overwhelmed and often leads to avoiding touch when possible.

Children with ASD, cognitive disabilities and other unspecific disorders often experience varying degrees of tactile sensitivity. Parents should be aware of the ways a very young child might react when he is overwhelmed by sensory overload because it will probably manifest itself with behaviour problems, meltdowns or mood changes. This is his only way of communicating his tactile sensitivity.

Some individuals who have tactile sensitivities likened their unpleasant feeling to the way some people cringe at the sound of a fingernail scratching a blackboard. This sensation could generate a strong unease.

Some children with tactile sensory hypersensitivity overreact to heat/cold, avoid wearing shoes, avoid getting 'messy' and dislike food of certain texture. They pull away when people try to hug them, because they fear being touched. Parents often report that washing their child's hair or cutting nails turns into an ordeal demanding it to complete it. Many individuals refuse to wear certain clothes, as they cannot tolerate the contact of their skin with certain materials.

How to observe in the story

What we can observe in Marta's story is a very specific kind of sensory hypersensitivity.

In relation to her new experience of peeing and pooping without diapers Marta is coming up many difficulties that are stiffening her behaviour and turning her mood into frustrated and irritable.

She was hurt when the poop came out and she cleaned herself. Moreover, the toilet seat was so cold whose feeling was augmented by her hypersensitivity and make it harder to tolerate. Also, the bathroom smelled bad!

The most awful experience for Marta, when she pooped, was to feel "the splash" and the water touching on her bottom. These issues connected with hypersensitivity were jeopardizing all the progresses that Marta and her mum were achieving towards the goal of ditching the diapers.

To make the new experience of visiting toilet and ditch the diaper more acceptable, Marta's mum tried to help her daughter and calm her hypersensitivity with some niceties:

they would use wet wipes so that Marta's bottom wouldn't hurt and when Marta peed, her mom would put a little bit of toilet paper in the bowl in case she needed to poop, so it wouldn't splash. Additionally, her mom bought a stool and a toilet seat adapter to make it more comfortable.

Keeping in mind the sensory overload of some children helps to find new practical solutions to reduce the impact of the stimulus on the children's mind and emotions.

Bibliography

<http://ceril.net/>

www.integratedtreatmentservices.co.uk/blog/sensory-hyper-hyposensitivity-autism



**Co-funded by
the European Union**

This project is co-funded by the Erasmus+ programme of the European Union under grant agreement No 2022-1-ES01- KA220-ADU-000088960.

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

CONCEPT 6: INTENTIONAL WITHHOLDING: POSSIBLE CAUSES AND CONSEQUENCES

Concept

Multiple issues, including sensory overstimulation, can contribute to toilet training challenges for children. Sometimes children don't have the motor skills to carry out a bathroom routine, while others are not cognitively able to recognize when to use the bathroom. Some children with intellectual disabilities may not know how to communicate (verbally or nonverbally) to someone when they need to go to the toilet.

Some children hold their stool in and try to stop the urge to have a bowel movement. This may happen for many reasons, such as:

- fear of the toilet
- not wanting to use a different toilet
- not wanting to take a break from play
- worry that having a bowel movement will hurt

How to observe in the story

Martha does not want to go to the toilet. She especially hates having to poop. She is worried that a part of her is leaving and does not understand that this is a natural human process which is completely harmless. The toilet seat feels cold against her butt cheeks and she does not like that. Sometimes water splashes up from the toilet and she finds that a bit gross.

Martha also finds it difficult to communicate to her parents *when* she needs the toilet. She does not know how to react when she feels an uncomfortable bowel movement and will often hold it in. Teaching Martha new skills is not always easy. She may have to enter unknown environments if she has to use the toilet outside of home. Hence she refuses to poop and pee at school.

It is very important that Martha is not forced to sit on the toilet, otherwise she will resist it even more. Sitting on the toilet must naturally evolve into something she wants to do. Positive reinforcement methods and turning the bathroom into a fun place can contribute to reducing Martha's aversion to the toilet.

Bibliography

[Potty Training For Autism – The Ultimate Guide - Autism Parenting Magazine](#)

[PowerPoint Presentation \(autismspeaks.org\)](#)



CONCEPT 7: ANXIETY AND/OR PHOBIA, WARNING SIGNS

Concept

Anxiety is a natural response to stress that every person experiences at some point in their life. However, when anxiety becomes persistent and starts interfering with daily activities, it can be a cause of concern, especially in children. Anxiety in children is not uncommon, and it can manifest in various ways. As parents or caregivers it is essential to understand the signs and symptoms of anxiety in children so that appropriate help can be provided.

A phobia is an excessive fear of an object or situation. It's a fear that lasts for at least 6 months. It's a type of anxiety disorder. In a specific phobia (for a certain object/situation) a child stays away from the object or situation, dreads it, or endures it with so much fear that it interferes with normal activities.

Anxiety in children can manifest in various ways, and the symptoms are different, depending on the age of the child. Some common signs and symptoms of anxiety in children include increased heart rate, sweating, shortness of breath, feeling of choking, chest pain or discomfort, headaches, stomachaches, nausea, vomiting, diarrhoea, sleep problems, fatigue, muscle tension and restlessness.

Some more behavioural symptoms that can also be observed: from avoiding social situations, crying to excessive worrying about things that are beyond their control, seeking constant reassurance from parents or caregivers and irritability.

How to observe in the story

Marta is a joyful girl but suddenly the new experience she is facing – toilet training - contributes to starting a circle of anxiety/phobia.

Marta's unsuccess in pooping into the toilet determined a persistent change of humour: her cheerful demeanour vanished, and she lost interest in playing. She became easily frustrated and irritable. She was really afraid by the toilet and some different behavioural symptoms of anxiety were easily shown! Marta felt sad by pooping and terrified by the splash of when she pooped!

Moreover, we can hypothesise she felt more symptoms inside; the difficulty to release poop is probably associated with tummy muscle tension. So, the exercises her mother proposed were really helping in this situation.

In a mix of emotional symptoms and body signs Marta shows in different ways how difficult it is for her to approach toilet training. New techniques, more patience and calm from her mother will be essential for Marta to make new progresses!



Bibliography

https://wohum.org/understanding-anxiety-in-children-signs-and-symptoms/?gclid=Cj0KCQjwrMKmBhCJARIsAHuEAPQbB1XDg6nIS4ybkUgqKyw0ks6En51ycQ_6arLojCfsLrKJukRWmpwaAIQVEALw_wcB

<https://www.cedars-sinai.org/health-library/diseases-and-conditions---pediatrics/p/phobias-in-children.html#:~:text=Some%20things%20that%20may%20put,provider%20can%20diagnose%20a%20phobia.>



**Co-funded by
the European Union**

This project is co-funded by the Erasmus+ programme of the European Union under grant agreement No 2022-1-ES01- KA220-ADU-000088960.

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

CONCEPT 8: OPTIMAL DIET TO FACILITATE INTESTINAL TRANSIT

Concept

Diet and nutrition play an important and essential role in everyone's life. A well-balanced diet helps build a healthy body and a strong mind. Nonetheless, some children commonly prefer high-calorie food with low nutrition. They may also face challenges to try new foods with different textures and flavours. Limiting what one eats can lead to constipation and other intestinal issues.

To facilitate intestinal transit, increasing fibre in the diet is very important! This will add bulk to the stool and make it easier to pass. Foods such as fruit, vegetables, whole grains, beans, lentils, peas, nuts and seeds are high in fibre. They also have protein, vitamins and minerals which are important for any child.

When increasing the fibre in your child's diet, it is important to increase fluid intake as well. Giving more fluids, especially water and juice, will help soften the stool and tackle constipation problems. In this case water is the best drink because sodas and juices have many added sugars.

How to observe in the story

Make food fun and something your child looks forward to. In this case, the parents begin to serve fruit and vegetables arranged on the plate in faces and shapes of Martha's favourite characters. Martha chooses a favourite healthy snack that she takes to school. They spend quality time together in the evening by preparing this snack together.

It is also important to reduce uncertainty around the eating schedule and meals. If a child knows what they will eat beforehand they will not be faced with last-minute surprises or changes to dishes. When Martha feels under control at the table and she is more willing to consume what her parents propose.

Bibliography

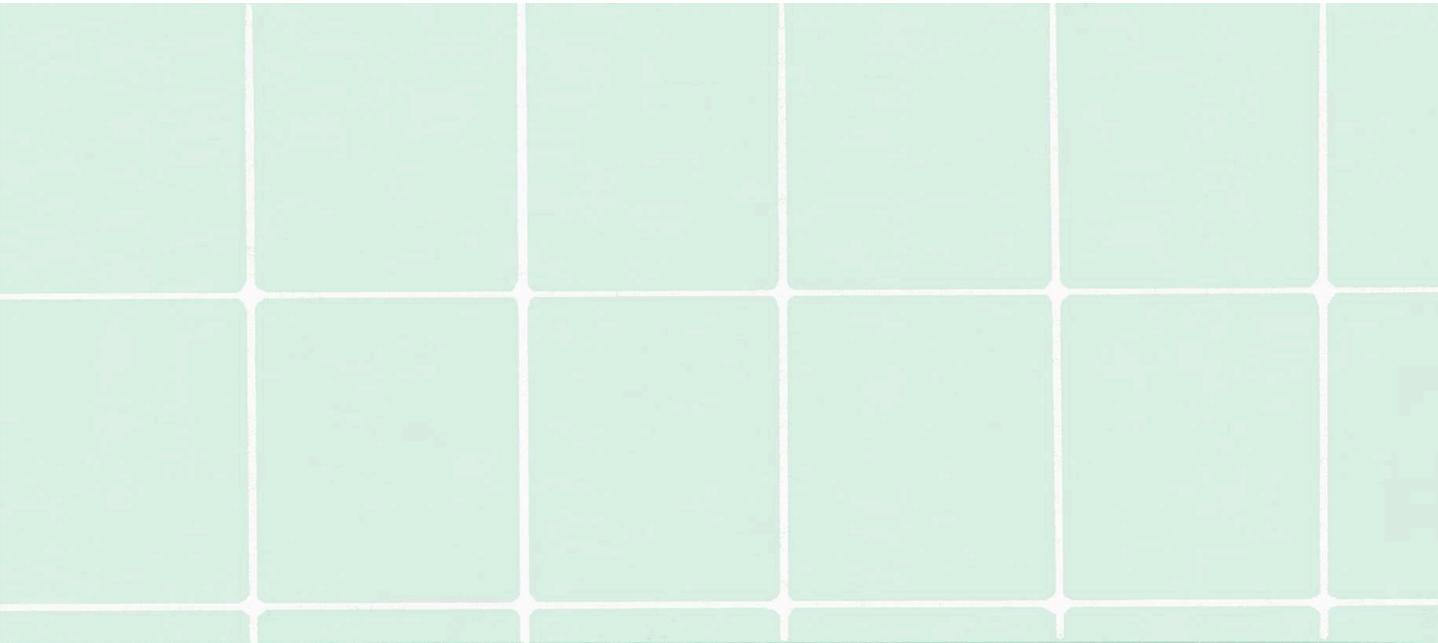
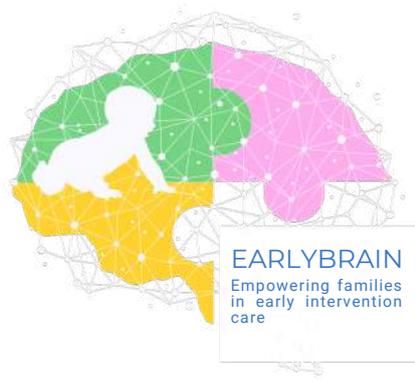
[PowerPoint Presentation \(autismspeaks.org\)](https://www.autismspeaks.org)

[Effects of Diet, Nutrition, and Exercise in Children With Autism and Autism Spectrum Disorder: A Literature Review - PMC \(nih.gov\)](https://pubmed.ncbi.nlm.nih.gov/31111111/)

[Optimal Food List For Autism + What Foods To Avoid \(crossrivertherapy.com\)](https://www.crossrivertherapy.com)







**Co-funded by
the European Union**

This project has received funding from the European Union's Erasmus+ programme under grant agreement No 2022-1-ES01-KA220-ADU-000088960.

The views expressed herein reflect those of the author and the Earlybrain consortium; the EU/Commission is not responsible for any use that may be made of the information it contains

