

First Case Study (Child)

“X” is a male who was **born preterm** (3 weeks and 5 days) in 5th April 2018. He is currently 3 years old. He has no other siblings. At first his weight was 1.7 but then decreased to 1.62. the patient was admitted in ICU for 3 days and then in special care for 5 days. After being discharged he had a fever and was admitted to Mubarak hospital. He **underwent some tests and the result showed that his neutrophils level was zero** therefore he **was given one shot of GCSF**. After his 1st admission, **he refused bottle feeding and didn’t want to put anything in his mouth**, so he started losing weight. **He had constant diarrhea that lasted for 3 months**. In addition, he **experienced digestion issues with sugar and milk**, so his parents stopped giving him both. The patient received PT course and started walking after 1.5 years. The child is experiencing continuous infection problem. Regarding his language and communication abilities, he can talk but he repeats what others say. Currently he **has 3 meals and 2 snacks a day that are given to him in a fixed time**. All his meals are pureed as the child doesn’t accept the presence of any lumps in his food even small ones. The parents want their child to start eating solid food so he can gain weight and solve the continuous infection he is experiencing.

Activity Analysis:

1. The caregiver places the child on a highchair.
2. The child drinks water.
3. The caregiver gives the child a coloring book with markers.
4. The caregiver turns on YouTube video on a phone and places on the table in front of the child.
5. The child grasps the marker and starts coloring.
6. The caregiver sits beside the child and places one hand around the child’s head and fixate it.
7. The caregiver approaches the child’s mouth with a spoonful of pureed food.
8. The child tries to turn away.
9. The mother holds his head tightly and forces the spoon into his mouth.
10. The child opens his mouth.
11. The caregiver scrapes the spoon with child’s teeth.

12. The child swallows the food and shows unpleasant facial expressions.
13. The child immediately wipes his mouth.

The child **showed oral hypersensitivity** as he didn't like the foods touching his mouth and wiped it immediately. He **wasn't paying attention to the feeding process** as he was watching the YouTube video and sometimes stops to color with the markers. **He didn't show readiness toward the process, wasn't motivated and didn't have the drive to participate in it** as he was trying to turn away when the mother brought the spoon near his mouth. **The child was forced to eat** as the mother was holding his head to prevent him from moving away, she was also waiting for him to be distracted and then she immediately forces the spoon inside his mouth. The child's motor skills were effective. He could sit on the highchair properly.

When exploring the environment, there were **a lot of things placed in front of the child** including the phone and the markers along with coloring book. The **mother was frequently wiping his mouth and showed no emotion. The process takes a long time to complete.**

Problem Statement:

The child has difficulty in feeding due to sensory issues such as hypersensitivity as well as limitations in physical environment such as presence of distractions and social environment such as caregiver lack of knowledge.

LTG (COAST):

- 1- The *child* will be able to participate in the *feeding* process *independently without showing any resistance or unpleasant facial expressions while sitting on a highchair* within **2 months**.
- 2- The *child* will be able to *tolerate solid foods independently* during feeding process *without showing any discomfort* within **1 month**.

STG:

- 1- *To reduce oral hypersensitivity*
- 2- *To modify the physical environment*
- 3- *To increase tolerance for solid foods*
- 4- *To increase the child's awareness of the feeding process*
- 5- *To educate the caregiver*

The intervention will start by modifying the environment on what fits the child. In this case, the environment has to be quiet and comfortable by removing all the distractions which include the phone and the coloring book with markers. After that, the child has to be prepared for the feeding process by engaging him in play based sensory activities such as finger painting, play dough, and water play. Moreover, providing oral sensory preparatory activities such as [oral desensitization](#) is important. It has to be done in slow movement with deep pressure starting from the limbs and move gradually toward the face and mouth. When getting to the mouth, play around it with the child by introducing different textured toys that can be tolerated. The child will be [introduced to textured food gradually](#) to increase the tolerance. This can be achieved through adding rice flakes to pureed food or by placing food crumbs on a chewing tube while the child is playing with it. Whenever the child attempts to take a bite from the textured food a praise will be provided to increase and encourage the child's participation in the feeding process.

The intervention also involves educating and training the caregiver:

- How to handle the child properly [without forcing him to eat](#)
- Training on [how to perform the oral desensitization properly](#) to help the child prepare and participate in the feeding process at home without having any difficulties
- [Cleaning](#) the mouth is only done [after the feeding process finishes](#)
- [Encourage the child to feed himself](#) as much as possible
- [Mealtimes should only take 30 mins after that](#)

Adult Dysphagia Case:

“Y” is a 41 years old female from the Philippines who is diagnosed with right CPA (Cerebellopontine angle) meningioma. during the early stages, “Y” experienced general weakness, facial numbness, decrease in hearing ability, and subjective visual disfunction all in the right side of the body. She also experienced dizziness. An MRI showed that she had R CPA brain tumor and on the 11th of January 2021 she underwent a surgery to remove the tumor.

“Y” is married and lives in a house. She has 9 siblings and 2 kids who all live in Philippines. she works as a maid and she usually wakes up early to get to work. Her roles are mother, wife, sister, and maid. Her habit is cooking. Concerning her ADLs, she experiences difficulty in feeding, swallowing, and eating. Regarding her concern, she wants to be able to eat normally again.

On Observation:

For the assistive devices, she is on catheter as well as tube feeding. she was lying on her right side and a tissue was placed under her cheek because she was drooling. Her right eye was red. As she got up to sit, she held her cheek and mouth using one hand to stabilize them. Her speech was not clear due to the weakness in facial muscles.

Assessments: Many assessments were conducted including FIM, GUSS (Gugging-Swallowing screening), and cranial nerves test. The results were as follows:

- **FIM**: at the beginning while she was on tube feeding, she got 1/7 in self-feeding. When the tube was removed her score got better but she still experienced great difficulty in feeding.
- **GUSS**: it was administered after few sessions when she started self-feeding and the result showed that she had mild dysphagia. (15/20)
- **Cranial Nerves Test**: most of them were affected:
 - **Trigeminal-V**: decreased facial sensation on the right side (*so her chewing ability is affected*). She has good jaw control

- **Facial-VII:** facial expressions are affected as she can't raise her R eyebrow and when she smiles only L side raises. In addition, *her ability to taste the food is affected*
- **Glossopharyngeal-IX / Vagus-X:** absence of gag reflex and **taste is affected**

Activity Analysis:

1. The patient sits at the edge of the bed and uses one hand for support.
2. Therapist cuts the food.
3. The patient reaches for the spoon.
4. The patient grasps the spoon with difficulty.
5. The patient scoops the food with difficulty and loads the spoon with food.
6. The patient moves the spoon towards her mouth, inserts it, and tries to close her mouth.
7. The patient removes the spoon from her mouth.
8. The patient reaches for a cup of water and grasps it with difficulty.
9. The patient drinks water using a straw.
10. The patient repeats the steps.
11. The patient takes a break after the fourth bite.

During the feeding activity, the patient had difficulty in balance as she used one hand for support. She needs assistance in cutting the food as she has weakness in her right hand. This weakness also affected her ability to hold the spoon as well as the cup. When the patient removed the spoon from her mouth **in the 7th step**, a lot of food remained on the spoon because she was loading it. The patient used a straw to drink water because she has a weak lip closure. The patient had to take rests after 4 bites due to her low endurance.

Problem Statement:

- The patient has difficulty in feeding due to limitations in balance, inadequate strength in the R side of the body and low endurance.

LTG:

- The patient will be able to feed herself independently while sitting on a chair with arm rests within 2 months.

STG:

- To improve muscle strength (face)
- To modify the physical environment
- To improve endurance
- To educate the patient
- Increase sensation in the face

The intervention will include [a face massage and tapping](#) on the eyebrows to the cheeks and then all the way to the angle of the lip. The massage and the tapping are used to increase the sensation of the face. After that, the patient will perform [facial exercises](#) to help strengthen the muscles of the face such as smiling, blowing using a straw, pursing the lips, and saying A – O – E.

The [food consistency will be graded gradually](#) starting from semisolids and mashed food. For the liquids the patient will be provided thick liquids since she has difficulty in swallowing, and she will drink it using a straw.

For the [environmental modification](#), the client will use a chair that has an arm rests to provide more support for her and improve her position. Moreover, a plate guard and a spoon with a cuff will be provided since she has weakness in her right hand.

A mirror will be used during the feeding proceeds to help the patient improve her sitting posture.

Finally, the client will be educated on:

- The appropriate position
- How to perform face massage
- How to perform facial exercises appropriately
- Food and liquid transitions