

MODULE 2

Disability, Feeding, and Nutrition in Children

(Total time: 120 minutes)

2.1 Common Disabilities and Conditions in Children

Time: 40 minutes

Preparation & materials required: Slide Deck, markers, pens, Bingo cards.

Objectives: At the end of this module, learners will be able to:

- Recall disabilities and conditions that may occur during childhood.
- Define cleft lip/palate, cerebral palsy, Down syndrome, autism, hydrocephalus, and spina bifida.

Key message(s) to take away for learners:

1. Common childhood disabilities and conditions that may impact nutrition and feeding include cleft lip/palate, cerebral palsy, Down syndrome, autism, hydrocephalus, and spina bifida.
2. Some conditions and impairments in children start from birth while others develop soon after birth. Certain conditions can be identified through observation or basic physical examination, whereas others may require specialized medical evaluation.
3. Focus on a child's functional abilities, such as the ability to feed well, rather than a specific diagnosis.

Activity 2.1.1 (40 minutes)

Common conditions/disabilities in children

Activity Summary	Key message(s)	Slides & Material(s)
Interactive presentation & Bingo!	1, 2 & 3	Slides 56-76 Markers/pens Mod 02_Activity Sheet_Bingo cards

Instructions

- Introduce the module:
 - In this module, we will explore common conditions and disabilities in children and discuss how disability is linked to nutrition and feeding.
 - We may use terms like conditions, impairments, and disabilities interchangeably. But keep in mind that not every condition or impairment leads to disability, as disability is the result of an impairment interacting with the environment (e.g., barriers).

- Explain key terms and concepts related to conditions and disability in children:
 - *Developmental milestones:*
 - Developmental milestones are skills that most children should have by a certain age. Examples include rolling over, smiling, sitting up, walking, running, and talking. Although the timing can vary from child to child, meeting developmental milestones within the expected time frame means a child is developing typically.
 - *Developmental delays:*
 - Not all children develop at the same rate – some children naturally take longer to develop than others and to attain developmental milestones.
 - Developmental delay is used to describe when a young child is slow to achieve expected skills compared to other children their same age. But this does not mean they have disability.
 - Many children with developmental delays can catch up with support and early intervention. If a child's developmental delays impact their abilities to learn and function long term, then it can be described as a disability.
 - Risk factors for developmental delays include genetic factors, birth defects, children born prematurely or are underweight, nutritional deficiencies, having certain infections (e.g., congenital cytomegalovirus or toxoplasmosis), birth complications, severe trauma, not enough oxygen at birth, or being exposed to certain medications, smoking, or alcohol while pregnant, and environmental toxins such as lead.
 - *Developmental disabilities:*
 - Developmental disabilities include limitations in function that manifest during infancy or childhood as delays in reaching developmental milestones or as a lack of function in one or multiple domains, including cognition, motor, vision, hearing and speech, and behavior. Developmental disabilities begin during a child's developmental period and typically last throughout their lifetime.
 - *Congenital anomalies (disorders):*
 - Congenital means present from birth. Congenital conditions can be inherited or caused by environmental factors.

Activity (15 minutes):

Note: This section can be adapted to focus on conditions that are common to a country/region.

- Lead an interactive presentation of each of the conditions/disabilities below. You may ask participants about what they know about the conditions and the standard of care in the country (e.g., *What can you tell me about cerebral palsy? What is it? How is it identified and addressed in your country? What beliefs exist around cerebral palsy in your country?*). Encourage discussion after each description to ensure understanding and reinforce learning.
 - *Cleft lip/palate*
 - Cleft lip and cleft palate are openings in the upper lip, the roof of the mouth (palate), or both. Cleft lip/palate occurs when these mouth structures do not form properly during a pregnancy.
 - A cleft lip is a visible condition and, as a result, the infant and mother may experience stigma.
 - Infants with cleft lip/palate have impaired sucking and may experience difficulty feeding, resulting in poor growth and development.
 - If not repaired, tooth development is impacted. When the palate is involved, speech and hearing are commonly impaired.
 - Intervention:

- Surgical repair to close the cleft is recommended as early as possible and is very effective. The infant must be a certain weight to qualify for surgery.
- Additional reconstructive services are sometimes needed.
- Speech therapy services might be needed for children with cleft palate.
- Several organizations including Smile Train, Operation Smile and Operation Rainbow, Global Smile Foundation, amongst others, provide cleft care services and training in low-resource settings.
- *Cerebral palsy*
 - Cerebral palsy is a condition that affects movement and coordination due to damage to the developing brain. It affects the brain's ability to properly send messages to muscles about how to move in smooth or well-coordinated ways. Cerebral palsy can also affect other body functions that involve motor skills and muscles, like breathing, bladder and bowel control, eating, and talking.
 - Cerebral palsy may occur while an infant is in the womb, during birth, or in the first two years of life.
 - Causes may include:
 - Birth complications (e.g., interruption in the flow of oxygen to the infant's brain or bleeding in the brain)
 - Infants who have a very low birth weight
 - Infants born before 32 weeks of pregnancy
 - Fever or infections during pregnancy, such as chicken pox or rubella
 - Injury to the child's brain due to an accident
 - Injury to the child's brain because of an infection of the brain, such as meningitis
 - Genetic disorders
 - If cerebral palsy is severe, some signs and symptoms may be evident at birth. In many children, however, symptoms appear over time, as the child develops. Signs and symptoms in children vary widely and may include the following:
 - Inability to lift own head by the appropriate age of development
 - Muscle tone that is too tight (stiffness) or too loose (heavy or floppy arms and legs) or an overlap of both types (e.g., high tone in the limbs, but low tone in the trunk)
 - Difficulty coordinating body movements, including grasping, bringing hands or spoon to mouth, sitting upright, and walking steadily
 - Delay in meeting developmental milestones, such as rolling over, sitting up without support, crawling, and walking
 - Difficulty swallowing, chewing, and uncontrolled drooling
 - Intervention:
 - There is no cure for cerebral palsy. However, starting therapies (e.g., physical, speech, feeding) early on for various areas affected can help a child grow to their potential, develop functional skills, and prevent secondary impairments.
- *Down syndrome*
 - Down syndrome, also known as trisomy 21, is a genetic condition in which a child is born with an extra copy of chromosome 21. This extra genetic

material affects the child's intellectual and physical development and increases the risk for certain health problems.

- Down syndrome occurs by chance and cannot be prevented. It is not caused by anything a mother did or did not do before or during pregnancy.
- Children with Down syndrome often share certain physical features, such as a flat facial profile, an upward slant to the eyes, small ears, and a tongue that tends to stick out.
- Low muscle tone is common, particularly in infancy, but tends to improve with age. Children generally reach developmental milestones, like sitting up, crawling, and walking later than other children. Low muscle tone may also contribute to challenges with feeding (e.g., difficulty sucking, self-feeding), constipation, and gastroesophageal reflux (when food or acid flows back into the esophagus).
- Children with Down syndrome usually grow more slowly and are shorter than their peers.
- Most children have mild to moderate intellectual disability, meaning they learn new skills at a slower pace. With the right support, they can and do develop skills throughout their lives.
- It is common for children with Down syndrome to have additional medical concerns, including congenital heart defect in infants, as well as hearing and vision problems.
- Intervention:
 - Children with Down syndrome benefit significantly from early intervention services, including physical therapy, occupational therapy, and speech/feeding therapy. The care needs vary depending on their individual health challenges.
 - All newborns with Down syndrome should be screened for congenital heart defects, and any feeding issues or heart conditions should be addressed promptly.
 - Regular checkups are important to monitor and manage potential hearing and vision problems.

○ **Autism**

- Autism – also referred to as autism spectrum disorder – is a developmental disability involving a wide range of conditions related to brain development. Being autistic means the brain functions differently, which can influence how a child behaves, communicates, interacts with others, and learns. Children with autism may not appear physically different from their peers.
- Autism can sometimes be identified at 18 months or younger, but is more commonly diagnosed between ages 3 to 5 years, or even later.
- The causes of autism are not well understood. There is no evidence linking autism to poor parenting or vaccines.
- Autism is typically characterized by:
 - some degree of difficulty with social interaction and communication, and
 - atypical activity and behavior patterns, such as:
 - Difficulty adapting to changes in routine or environment
 - Difficulty with transitions between activities
 - A strong focus on details
 - Unusual reactions to sounds, textures, and other sensations.

- Repetitive behaviors
- Feeding difficulties are also common among children with autism. These may include:
 - oral-motor and sensory feeding difficulties,
 - strong preference for certain foods, often carbohydrates, grains, and crunchy foods, and
 - resistance to changes in feeding routines, environments (e.g., unable to eat at school), tools (e.g., specific bowls, spoons, cups), and food presentation (e.g., texture, color, or temperature).
- Intervention:
 - Autism exists on a spectrum, meaning that every child is unique. Some may require significant support in their daily lives, while others can be more independent.
 - Early identification and intervention can make a significant difference in identifying autism and helping children develop important skills such as communication and social interaction.
 - Caring for a child with autism can place considerable demands on families. Access to appropriate services, community support, and inclusive attitudes within society and from government institutions play a crucial role in ensuring the well-being and quality of life of both children and their families.
- *Hydrocephalus*
 - Hydrocephalus is the build-up of the fluid, called cerebrospinal fluid, that normally bathes and cushions the brain and spinal cord. It may be present at birth, but more commonly occurs progressively during early infancy.
 - A common cause in children is an infection in the brain (meningitis, encephalitis), which creates scars in the brain, blocking the flow of cerebrospinal fluid. This causes pressure on brain tissue with progressive brain damage and impairment if not treated. [*Meningitis: inflammation of the tissues surrounding the brain and spinal cord; Encephalitis: inflammation of the brain*].
 - Other causes include a brain tumor, bleeding in the brain due to brain injury, infection during pregnancy, spina bifida, and complications of prematurity.
 - Sign of hydrocephalus in children are more obvious in infants under 12 months old as their skull bones have not fully grown yet. The build-up of fluids causes a rapid increase in head circumference or an unusually large head size. Other signs and symptoms in children may include seizures, vomiting, sleepiness, irritability, poor feeding, visible scalp veins, or bulging eyes that gaze downward.
 - Intervention:
 - Urgent surgical referral to a specialized hospital unit is needed. Delay in referral results in permanent physical and intellectual disability.
 - The goal of treatment is to reduce pressure inside the child's head by draining the extra fluid. This can be done with a mechanical shunt (a special tube) from the brain to the abdomen, where the extra fluid is absorbed.
 - Community follow-up is necessary because as the child grows the shunt may fail and need to be replaced.
- *Spina bifida*

- Spina bifida is a condition in which the spine does not form properly before birth. It is the most common type of neural tube defect.
- It usually happens in the first month of pregnancy when the neural tube (structure that eventually forms the baby's back and spine) does not develop or close properly, leading to defects in the spinal cord and bones of the spine (vertebrae).
- There are different types of spina bifida that range from mild to severe, depending on factors such as the size of the opening and the location of the opening on the spine. In the severe form, an open sore or bulging soft tissue can be seen on the infant's back.
- Hydrocephalus often accompanies this condition.
- Prevention:
 - Folic acid (folate) supplementation before conception and during the early weeks of pregnancy reduces the incidence and severity of spina bifida drastically. Taking folate during pregnancy might be too late to prevent this impairment.
 - All women of childbearing age should be encouraged to receive folic acid supplements (often provided together with iron supplements). Health workers should encourage the intake of foods rich in folate (dark leafy green vegetables, peas, kidney beans, chickpeas) and food sources that are fortified with folate, if available.
- Intervention:
 - Treatment for spina bifida varies depending on the severity of the condition. Many infants with the mildest form may not require any medical intervention.
 - In more severe cases, urgent referral for surgery is necessary to close the opening in the infant's back and treat hydrocephalus, if present. Delay in treatment results in a very high mortality rate.
 - While surgery can help prevent further complications, spina bifida cannot be cured and often results in permanent impairments that requires long-term rehabilitation. This can be extremely challenging for families, making emotional support, community resources, and access to specialized services critically important.

Activity (15 minutes):

- Before the training, cut along the dotted lines on the Bingo card activity sheet to prepare enough cards for the entire class.
- Tell participants that they will now test their knowledge about common disabilities in children by playing a game called Bingo.
- Distribute bingo cards and markers to each participant.
- Explain the rules of the game and give an example if needed:
 - Each of you has a Bingo card that might be different than that of other participants.
 - Your Bingo card has the names of some of the conditions we discussed, one condition per square.
 - I will read a statement describing a condition.
 - Listen to my statement carefully and mark the appropriate square with your pen if you have it on your Bingo card.
 - The first participant to complete a row, column, or diagonal on their Bingo card shouts "Bingo!"
- Read each statement one by one *[answers are between brackets]*:

1. This condition means there is a gap in the upper lip and/or the roof of the mouth. [*Cleft lip or palate*]
 2. This condition happens when the spine does not form properly and can be prevented with folic acid supplementation before conception. [*Spina bifida*]
 3. This condition affects movement and muscle coordination, often appearing in early childhood. [*Cerebral palsy*]
 4. This condition happens when too much fluid builds up in the brain, causing increased pressure and head size. [*Hydrocephalus*]
 5. This condition is characterized by difficulty with social interaction and communication. [*Autism*]
 6. This condition is common among children with Down syndrome. [*Congenital heart defect*]
 7. This term refers to functional limitations in one or more developmental domains. [*Developmental disabilities*]
 8. Infants with this condition have an extra chromosome 21, which can delay how they grow and develop. [*Down syndrome*]
- Continue playing until multiple participants achieve Bingo or until all descriptions have been read out.
 - Conclude this section:
 - Ask participants:
 - What is one new thing you learned today?
 - What is one thing you found surprising?
 - Some conditions in children start from birth while others develop soon after birth. Some conditions can be easily identified by observation or basic physical examination while others may require specialized medical services.
 - It is important to note that it can be difficult to identify certain disabilities in infants and even young children. A disability may not be identified until later when certain developmental milestones are not met. This becomes even more difficult in humanitarian emergency situations. That is why, focusing on function, such as ability to feed well, rather than having a diagnosis, can be a strategy to support children who may have a suspected disability.



Check before proceeding.

These are the key messages for this module. Have these been explicitly addressed and learners appear to have a good understanding of them?

1. Common childhood disabilities and conditions that may impact nutrition and feeding include cleft lip/palate, cerebral palsy, Down syndrome, autism, hydrocephalus, and spina bifida.
2. Some conditions and impairments in children start from birth while others develop soon after birth. Certain conditions can be identified through observation or basic physical examination, whereas others may require specialized medical evaluation.
3. Focus on a child's functional abilities, such as the ability to feed well, rather than a specific diagnosis.



2.2 The Bidirectional Link between Disability and Nutrition

Time: 30 minutes

Preparation & materials required: Slide Deck, flipchart, markers, sticky notes.

Objectives: At the end of this module, learners will be able to:

- Explain how disability contributes to poor nutrition, growth, and development in children.
- Explain how poor nutrition can lead to or worsen disability in children.

Key message(s) to take away for learners:

1. Children with disabilities are more likely to be malnourished as malnutrition can cause disabilities and disability can also lead to poor nutrition, growth and development, creating a cycle.
2. Mothers with disabilities often encounter inadequate support with feeding and access to healthcare for themselves and their children.

Activity 2.2.1 (30 minutes)

The link between nutrition and disability

Activity Summary	Key message(s)	Slides & Material(s)
Brainstorming activity	1 & 2	Slides 77-82 Flipchart, markers, sticky notes

Instructions

Activity (30 minutes):

Note: If time is limited, do this activity as a large group discussion.

- On a flipchart, draw two large circles that overlap. Write “NUTRITION, GROWTH, & DEVELOPMENT” inside the circle on the left and “DISABILITY” inside the circle on the right. Draw an arrow on top that goes from the right to the left circle (“Nutrition” to “Disability”), and an arrow at the bottom that goes the opposite way (“Disability” to “Nutrition”).
- Introduce the activity, pointing to the diagram on the flipchart:
 - Disability and nutrition are closely linked. Poor nutrition can lead to disability or even make a disability worse. There are also aspects of disability that may contribute to malnutrition.
 - In this activity, you are going to complete the diagram by brainstorming nutrition-related factors that can cause or worsen disability (point to the top arrow) and aspects of disability that may contribute to poor child nutrition, growth, and development (point to the bottom arrow). These factors can be about the mother, the child, the family, the community, health facility practices, or national policies.
- Divide participants into four or six small groups (an even number). Give each group a set of sticky notes and markers.
- Ask half of the groups (two or three groups) to brainstorm “Nutrition → Disability” factors and the other half to brainstorm “Disability → Nutrition” factors. Encourage participants to include disability-nutrition linkages in a humanitarian context. Ask groups to write one

factor per sticky note. If needed, provide an example for each to get the groups started (e.g., Nutrition → Disability: vitamin D deficiency causes rickets; Disability → Nutrition: feeding difficulties that may lead to poor growth).

- After 10 minutes, bring the large group back together.
- Ask the “Nutrition → Disability” group representatives to come up to the flipchart, place the sticky notes in the appropriate space, and share their responses. Invite others to add to the list.
- Present information on the “**Nutrition → Disability**” link not shared by participants:
 - *Maternal malnutrition*
 - Low folate intake before conception and during early pregnancy may cause neural tube defects in children such as spina bifida
 - Iodine deficiency during early pregnancy may lead to intellectual disability in children
 - Poor maternal nutrition during pregnancy may cause adverse birth outcomes including low birth weight, premature birth, and birth defects (e.g., cleft lip and palate, heart defects), which are associated with an increased risk for disability
 - General maternal malnutrition contributes to physical and intellectual disability in children, perpetuating an intergenerational cycle of poor health and disability
 - Vitamin B12 deficiency in lactating mothers (such as in the case of untreated megaloblastic anemia) may cause developmental delays in infants
 - *Child malnutrition*
 - Vitamin D deficiency causes rickets
 - Vitamin A deficiency causes blindness
 - Protein deficiency may result in delayed physical growth or poor cognitive development
 - Iron deficiency is associated with intellectual, learning, and behavioral disability
 - Iodine deficiency causes delayed cognitive development
 - Malnutrition weakens the immune system, increasing a child's susceptibility to infections such as meningitis and measles, which can cause permanent impairments like hearing or vision loss
 - Muscle wasting, seen in severe acute malnutrition, can cause physical disabilities
- Ask the “Disability → Nutrition” group representatives to come up to the flipchart, place the sticky notes in the appropriate space, and share their responses. Invite others to add to the list.
- Present information on the “**Disability → Nutrition**” link not shared by participants:
 - *Medical* (the impairment is a direct cause of poor nutrition, growth and development)
 - Conditions associated with oral motor difficulties (e.g., cleft lip and palate, cerebral palsy, Down syndrome) or sensory difficulties (e.g., autism) affect children's ability to eat safely and efficiently, leading to feeding difficulties. They may limit the types and amounts of foods that children are able to consume.
 - Certain conditions cause poor absorption of nutrients (e.g., cystic fibrosis, metabolic diseases).
 - Certain conditions result in increased demands for energy and nutrients (e.g., cerebral palsy, congenital heart defect).

- Preterm infants commonly have reduced nutrient stores, immature digestive systems, feeding difficulties, and medical complications.
- Mothers with disabilities may have difficulty with feeding:
 - Without proper support, mothers with cerebral palsy or physical disabilities (limited motion in arms or upper body; limb differences affecting the arms) may be unable to properly position and support their child to feed safely and efficiently (e.g., supporting an infant to latch properly for breastfeeding).
 - Mothers with learning or intellectual disabilities may have a difficult time understanding and following recommendations if the information is not communicated in an accessible and appropriate manner.
 - Mothers with disabilities on certain medications may not be able to breastfeed.
 - Breastfeeding may exacerbate symptoms of the disability (e.g., bone density) for mothers with certain disabilities.
- *Environmental* (educational, attitudinal, cultural, social):
 - Inadequate knowledge among mothers on how to feed a child with difficulty feeding.
 - Difficult feeding can lead to increased stress levels for the caregiver and the child, which can result in insufficient food intake.
 - Unsafe feeding practices that increase the risk for aspiration.
 - Lack of training among health workers on how to feed children with disabilities that impact feeding or how to support mothers with disabilities.
 - Medical interventions that are not available (e.g., cleft repair, heart surgery).
 - Lack of adaptive utensils like cups, bottles, and spoons when needed.
 - Cultural norms that discourage mothers of newborns with a disability to breastfeed.
 - Stigma and discrimination in the community and among health workers that prevents mothers of children with disabilities or mothers with disabilities to seek support.
 - Lack of information on feeding that is suitable for mothers with disabilities (e.g., breastfeeding positions for mothers with physical disabilities).
 - Attitudinal barriers related to disability among health workers, community members, program managers, and policy makers that hinder access to quality health services.
 - Policies that are not inclusive of mothers with disabilities or children with disabilities.
 - Needs of mother-child pairs impacted by disability might be overlooked in humanitarian contexts.
- Share with participants that studies have shown that children with disabilities are up to three times more likely to be malnourished, twice as likely to be stunted, twice as likely to be wasted, and twice as likely to die from malnutrition compared to children without disabilities.
- Conclude this section:
 - Poor nutrition in children can lead to poor growth and health outcomes; missing or delays in reaching developmental milestones; acquiring avoidable secondary conditions; and, in extreme circumstances, death. At the same time, children with disabilities may become malnourished due to feeding difficulties, frequent illness,

- difficulties absorbing nutrients, inappropriate feeding practices, and cultural and attitudinal barriers.
- This cycle is often exacerbated during humanitarian crises due to additional barriers.



Check before proceeding.

These are the key messages for this module. Have these been explicitly addressed and learners appear to have a good understanding of them?

1. Children with disabilities are more likely to be malnourished as malnutrition can cause disabilities and disability can also lead to poor nutrition, growth and development, creating a cycle.
2. Mothers with disabilities often encounter inadequate support with feeding and access to healthcare for themselves and their children.

2.3 How Stress and Trauma Affect Feeding in Children with Disabilities

Time: 50 minutes

Preparation & materials required: Slide Deck, blank paper, markers (or crayons), stress connection scenario cards.

Objectives: At the end of this module, learners will be able to:

- Explore how the emotional state of both health workers and caregivers may affect each other.
- Recognize how stress, trauma, and disability may intersect and impact feeding practices.

Key message(s) to take away for learners:

1. Recognizing how stress affects health workers, mothers and caregivers, and children with disabilities enables the creation of better care strategies, resulting in healthier outcomes for children and their caregivers.
2. Disability-related stress is caused by stigmatization, lack of access to support, discrimination, and other abusive, violent, or exclusionary experiences or circumstances.
3. Maternal stress and trauma may impact the mother's ability to look after and bond with her child, significantly influencing the child's physical and emotional development.
4. When well supported, most mothers can practice responsive feeding and nurturing care even in very challenging circumstances.

Note: This topic offers an overview of how trauma, stress, and feeding intersect in the context of disability. For more in-depth training on stress and infant and young child feeding (IYCF) counseling in emergencies, refer to Save the Children's IYCF-E Curriculum for Frontline Workers: Addressing Stress in Emergencies.

Activity 2.3.1 (20 minutes)

Feelings Pie Chart

Activity Summary

Key message(s)

Slides & Material(s)



Save the Children

Self-reflection activity	1	Slides 83-86 Blank paper, markers (or crayons)
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Instructions

- Introduce this section:
 - In this section, we are going to explore the intersection of stress, trauma, and disability and how this combination of factors may impact feeding practices.
 - In order to support mothers and other caregivers to deal with stressful situations, it would be helpful to understand different emotions that they might be going through.
 - Let's start by first exploring our own emotions. It may be uncomfortable or unusual for some of you to think about your own feelings but understanding them is the first step towards providing compassionate and effective care for others.

Activity (15 minutes):

Note: This activity is adapted from USAID Maternal and Child Survival Program (2019). Caregiver Psychosocial Support Session Guide: Helping Young Children with Disabilities Meet their Potential.

- Distribute the papers and markers/crayons to participants. Each participant needs one paper and a few markers/crayons. Participants sitting next to each other can share markers/crayons.
- Provide activity instructions to participants:
 - Draw a large circle on your paper.
 - Think of the different feelings that you have at this moment. It's okay if you are feeling many things at the same time. Sometimes we may feel happy and tired, or hopeful and angry.
 - Make a list of those feelings with the corresponding color somewhere on the sheet of paper to create a "key" to understand how the pie is divided. *[Note: Show the slide with a list of feelings words and let participants know that they can refer to it if need support to describe their feelings].*
 - Assign a color to each feeling. There is no right or wrong color to represent each feeling. Any color is okay.
 - Then, divide the pie according to the size of each feeling you are experiencing at the moment. Some feelings will be stronger than others, so some pieces of the pie will be larger than others.
 - Once you are done, share with the person sitting next to you if you feel comfortable doing so.
- After 10 minutes, bring the large group back together.
- Ask participants if anyone would like to talk about their drawing. *[Optional: Prepare your own feelings pie chart on a flipchart and share it with participants.]*
- Conclude this section:
 - This activity is to help you recognize your feelings and realize that we all often have a mix of emotions at one time. This includes colleagues we work with, mothers we interact with, and family members we live with. These emotions may impact how we think, behave, work, treat others, and care for ourselves.
 - In highly stressful or traumatic situations, negative emotions such as anger, worry, panic, irritability, fatigue, sadness, and helplessness may dominate feelings of joy, excitement, hope, and gratitude. Understanding how you and the mother-child pairs in your care might be impacted by stress helps create better care strategies that support everyone, leading to healthier mothers and infants.

Activity 2.3.2 (30 minutes)
Child, mother, health worker stress connection and feeding

Activity Summary	Key message(s)	Slides & Material(s)
Role-play & small group discussion	1, 2, 3, & 4	Slides 87-92 Mod 02_Activity Sheet_Stress Connection Scenario Cards

Instructions

- Introduce this section:
 - The relationship between the mother, child, and health worker is crucial for ensuring the well-being and health of both the child and the mother. However, each of these individuals might be experiencing disability, trauma, and/or stress, leading to poor mental health and potentially impacting the child's feeding, growth and development. This is exacerbated in traumatic and stressful situations including poverty, conflict, natural disasters, displacement, and other humanitarian/emergency contexts.
 - *Mothers:*
 - Pregnancy and the period after pregnancy are a psychologically distressing time for many women, particularly for those living in poverty, emergency situations, with violence, abuse, or an unintended pregnancy; those experiencing disability, and those who might be displaced from their homes and communities. Many women in low- and middle-income countries live in these circumstances.
 - Having a child with a disability is often perceived as the loss of a "perfect" child and is typically an unanticipated event for the mother and family. Mothers may experience self-blame for the disability.
 - Mothers with disabilities experience stress linked to their disability, stemming from stigmatization, limited access to support, discrimination, and encounters with abuse, violence, or exclusion. These challenges may arise from direct experiences related to their disability or from societal misconceptions about it.
 - *Children:*
 - A child's health and mental wellbeing are shaped by their relationship and interactions with their mother and other caregivers (e.g., whether they experience loving and nurturing interactions) and the level of stress in their environment.
 - Maternal stress and trauma may impact the mother's ability to look after and bond with her child. She may find it very difficult to soothe her child, which may prolong her child's experiences with stress.
 - This dynamic becomes more complex when mother-child pairs are impacted by disability without the presence of adequate care and support.
 - *Health workers:*

- Like everyone else, health workers are influenced by their own experiences, families, communities and cultures. They have their own expectations and attitudes to the mothers they work with, no matter how professional and experienced they are.
- Factors that may affect health workers range from external pressures (such as the work environment and personal relationships) to internal pressures (how they are feeling).
- Health workers working in emergency contexts and in challenging circumstances may experience “secondary traumatic stress.” This type of stress results from helping others who are suffering or who have been traumatized. It can have physical (headaches, heartburn), mental (difficulty concentrating), and emotional (feelings of grief, anxiety, or sadness) consequences in healthcare workers.
- In this section, we will explore how stress levels and the mental health of the mother, the child, and the health worker are interconnected and how they impact each other.

Activity (20 minutes):

Note: If time is limited, skip the role-play. Ask participants to read their scenario and discuss the three questions listed below.

- Before the training, cut along the dotted lines on the stress connection scenario card activity sheet.
- Divide participants into small groups of three. If the total number of participants does not divide evenly, one or two groups can have two or four members.
- Give each group a scenario card describing a stressful situation. Explain that each scenario includes potential stressors relevant to three roles: Mother, Child, or Health Worker.
- Ask each person in the group to select one of three roles.
- Explain the activity:
 - In each scenario, the health worker is counseling the mother, who brought her young child with her to the clinic, on responsive feeding.
 - In your groups, role-play the counseling session for 5 minutes, focusing on expressing and responding to stress in your assigned roles.
 - After role-playing, discuss the following questions for another 5 minutes from the perspective of your assigned roles:
 - What specific stressors, traumas, or disabilities are present?
 - How might stress in one role affect the others?
 - In what ways could these stressors, traumas, and disabilities intersect to influence feeding and mother-child interactions?
 - You have 10 minutes total for role-play and discussion.
- After 10 minutes, reconvene the entire group and invite groups to share their insights from the discussion.
- Use the flipchart to jot down main points, highlighting common themes across the discussions.
- Present the following key points on the *impact of stress on feeding in children with disabilities*:
 - Stress, trauma, and disability often intersect in ways that deeply influence feeding practices for children with disabilities. Caregivers of children with disabilities may face heightened emotional and physical demands due to their child’s complex needs, particularly when those needs involve feeding difficulties such as difficulty communicating needs, chewing or swallowing problems, food refusal, picky eating,

sensory sensitivities, or medical conditions requiring modified diets. These difficulties can make feeding a time-consuming, emotionally draining process and may disrupt the natural rhythms of responsive feeding.

- Without adequate support, caregivers under high stress may feel overwhelmed, frustrated, or unsure of how to help their child. This can strain the feeding relationship, leading to tense or negative mealtimes, and can even contribute to poor growth in the child. In high-stress environments, even young children may lose their appetite or experience slowed digestion. For some, feeding becomes a source of distress rather than connection, which can reinforce feeding difficulties.
- When trauma is also present—whether from birth complications, hospitalization, violence, conflict, displacement, or ongoing adversity—the impact on feeding is often intensified. Trauma can heighten the caregiver’s stress response, making it harder to remain emotionally available or use nurturing feeding practices. For children with disabilities, who may already struggle with feeding, this creates a compounding effect: caregivers may become less responsive or give up on recommended feeding strategies due to burnout or hopelessness. On top of this, societal stigma and limited access to disability-inclusive health and nutrition services can lead to delayed identification of feeding difficulties and fewer opportunities for early intervention.
- Present the following key points on the *impact of maternal stress on breastfeeding*:
 - When the infant suckles, two hormones are produced: the hormone “prolactin” stimulates milk production and the hormone “oxytocin” allows the milk to flow.
 - The mothers’ thoughts, feelings and sensations can affect the production of oxytocin.
 - *Good feelings*, like thinking loving thoughts of her infant, touching, smelling or looking at her infant help the production of oxytocin.
 - *Bad feelings*, like stress, worry, and pain can hinder the production of oxytocin and interfere with the flow of milk or even temporarily stop the flow of milk (not the production).
 - For mothers of infants with disabilities, stress levels can be particularly high. They may experience increased emotional strain due to uncertainty around their infant’s health, challenges with feeding, or difficulty accessing specialized support. Feeding difficulties are more common among infants with disabilities, which can contribute to a cycle where the stress of feeding challenges reduces milk flow.
 - It is critical to recognize that in such contexts, mothers may mistakenly believe their milk has “dried up” and stop breastfeeding earlier than intended. This highlights the importance of proactive support—both emotional and technical—for lactating mothers, especially those caring for infants with disabilities.
 - Breastfeeding in emergency situations or resource-limited settings can be further complicated by traumatic experiences by both the mother and infant, myths and misconceptions, the mother’s limited time, lack of space and privacy, insufficient support, and the unregulated distribution of breast milk substitutes. For infants with disabilities, these challenges are often magnified. However, with proper technical and emotional support, enhanced coping skills for caregivers, and a supportive environment, most mothers can begin or continue breastfeeding even in challenging circumstances.
- Present the following information on *ways to manage stress in mothers*:
 - Health workers can play a key role in supporting and reducing stress in mothers (and other caregivers) of children with disabilities. Here are practical actions they can take:

- Listen and validate their feelings. Provide a safe space for mothers to share their worries and emotions without judgment. Acknowledge the challenges they face and validate their experiences (*"It makes sense that you feel overwhelmed."*).
 - Offer clear, supportive information about the child's condition, needs, and available services.
 - Set realistic expectations and goals to reduce uncertainty and fear.
 - Connect them to available support systems (parent groups, community programs, mental health services).
 - Encourage peer connections so they don't feel alone in their journey.
 - Gently encourage rest, breaks, and small self-care practices—even a few minutes a day.
 - Offer ideas for stress relief that fit their routine (e.g., breathing exercises, short walks, crafts).
 - Assist with navigating health and social services, such as accessing nutrition programs, disability benefits, or cash transfers.
 - Involve the whole family and offer family-centered support. When possible, encourage sharing caregiving roles with partners, relatives, or friends.
- Conclude this section:
 - Supporting feeding for children with disabilities, especially in the context of stress and trauma, requires a holistic, trauma-informed, and disability-inclusive approach—one that recognizes the emotional wellbeing of the caregiver as central to the child's nutritional and developmental outcomes.
 - As health workers, we must be aware of how our own emotional state influences the way we work and how our behaviors influence how a mother may feel.
 - A mother who feels safe, heard, and supported is more likely to bond with her child, engage in responsive feeding, and continue nurturing care practices even in the most stressful situations. This highlights the crucial role of health workers and the power of positive, empathetic counseling.
 - Conclude this module:
 - This brings us to the end of the module. Remember, some disabilities begin at birth while others emerge later, and focusing on a child's functional abilities—like feeding—matters more than their specific diagnosis. It is also important to recognize the bidirectional link between malnutrition and disability, often creating a cycle of poor health. Mothers and children with disabilities may also face significant stress. Yet, with the right support, responsive feeding and nurturing care are possible—even in challenging situations.



Check before proceeding.

These are the key messages for this module. Have these been explicitly addressed and learners appear to have a good understanding of them?

1. Recognizing how stress affects health workers, mothers and caregivers, and children with disabilities enables the creation of better care strategies, resulting in healthier outcomes for children and their caregivers.
2. Disability-related stress is caused by stigmatization, lack of access to support, discrimination, and other abusive, violent, or exclusionary experiences or circumstances.

3. Maternal stress and trauma may impact the mother's ability to look after and bond with her child, significantly influencing the child's physical and emotional development.
4. When well supported, most mothers can practice responsive feeding and nurturing care even in very challenging circumstances.

Optional Activity (5 minutes):

Note: This activity is adapted from USAID Maternal and Child Survival Program (2019). Caregiver Psychosocial Support Session Guide: Helping Young Children with Disabilities Meet their Potential.

This session may bring up difficult emotions for some participants. Use the breathing exercise described below (or any meditation exercise you are familiar with) at the end or at any point during the session if you sense that the group needs calming.

Breathing Exercise Script

Show participants how to breathe. (slide 93)

When you breathe in deeply, your belly should extend outward. When you breathe out, your belly moves in toward the spine. Explain that sometimes when we breathe, we take shallow breaths, filling the chest only a little. It is better to breathe deeply so the air fills your chest, expanding fully and pushing the belly outward. Then lead them through the following meditation.

Sit comfortably on the floor with legs crossed or on a chair with feet touching the floor; place one hand on your chest and one on your belly; keep your eyes closed. Slowly blow out through your mouth all the churned-up air from inside your body, as if you were blowing up a balloon (get it all out, blowing it into a make-believe balloon that you will then let fly away). Count one (to yourself). As you breathe in fresh, clean air through your nose, as slowly as you can, count two (to yourself). Blow the air out through your mouth, counting three (to yourself). Breathe in fresh air through your nose and count four (to yourself). Keep doing this until you count to 10. Watch those imaginary balloons filling with hot air and flying away!

Slowly return your attention to the room. Rub your hands together, and place them over your eyes. Then gently open your eyes.