



Stimulation Therapy for malnourished children under 5 years old (ST-Malnourished children)

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About this brief

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Stimulation Therapy for malnourished children under 5 years old (ST-Malnourished Children) is implemented as a complement to essential nutritional and medical care to give them the **best chance of survival, better resilience and improve their future quality of life.**

Stimulation Therapy is a direct and effective response to **prevent and reduce developmental delays and impairments related to malnutrition and to train caregivers in the appropriate stimulation of their child in low- and middle-income countries**, even for families who are displaced or living in complex situations such as camps.

Key messages

For children and their caregiver

HI recommends Stimulation Therapy to support **every children with Severe Acute Malnutrition (SAM) from 6 months to 59 months** (under 5 years). It begins during the nutritional recovery or rehabilitation phase. **The caregiver** is encouraged to participate in the session and is trained to stimulate the child according to her/his needs. The therapy session lasts approximately 30 minutes. Then, the caregiver can repeat the stimulation throughout the day by incorporating it into the daily routine.

In certain contexts where the factors are met, Stimulation Therapy can be used for children suffering from Moderate Acute Malnutrition (MAM). Possibly, it can be considered for chronically malnourished children with delayed physical and/or cognitive development measured by a child assessment tool.

A one-to-one therapy

This therapy is done in person and with one child at a time. It is not a group therapy or group stimulation. A study conducted in Mali in 2014 shows significant positive results on the psychomotor and cognitive development of children.

Provided by a rehabilitation professional

It is provided by trained rehabilitation professionals: physical therapists, occupational therapists. In situations where there are no such professionals available, it is possible to hire experienced physiotherapist assistants or occupational therapist assistants or rehabilitation workers.⁴

“Why?” The foundations of the Stimulation Therapy for Malnourished Children

Malnutrition effects

Malnutrition takes many forms, the most visible of which are undernutrition, which includes wasting and stunting, and overweight. In 2020, globally, an estimated 45.4 million children under the age of five are wasted, and 149.2 million are stunted. Undernutrition is associated with about 45% of deaths in children under five, which occur mainly in low- and middle-income countries. The developmental, economic, social and health implications of the global burden of malnutrition are severe and long lasting for individuals and families, communities and countries.



WHO

recommendation for the management of SAM

"Apart from informal group games, each child should be given 15 to 30 minutes of individual play per day".

Stimulation therapy was born out of this WHO recommendation.

Physiotherapists or occupational therapists have the necessary skills to organise and lead individual sessions.

Alternatively, rehabilitation assistants or rehabilitation workers with professional experience can be hired.



The rehabilitation professional knows how to stimulate the child to move and play.

Malnutrition can affect brain development

The development of the brain and nervous system begins early in pregnancy and is largely complete by the time the child reaches the age of 2 years. The timing, severity and duration of nutritional deficiencies during this period affect brain development with varying degrees of long-term effects.

Developmental delays can lead to impairments or loss of capacity

Undernutrition is a major factor in child mortality, illness and disability. Children may show delays in motor and cognitive development, associated with behavioural and communication problems. These can consolidate over time and lead to irreversible impairments if left untreated. Performance at school and future earnings may be affected.

Preventable consequences

It is estimated that over 15% of Disability Adjusted Life Years (DALYs) lost worldwide are due to malnutrition. Most neurological disorders related to malnutrition are preventable.

ST-Malnourished Children is in line with WHO recommendations for SAM children

The World Health Organization (WHO) recommends that emotional and motor stimulation activities are incorporated into the treatment of SAM, especially during the nutritional recovery phase. The WHO also recommends individual play with each child. The caregiver is encouraged to engage in daily care.

ST-Malnourished Children is in line with WHO's 'Nurturing Care' principles

The Nurturing Care programme launched by WHO (2018) is a framework to help children survive and thrive based on the statement: 'If we change the beginning of the story, we change the whole story'. ST-Malnourished Children is in line with this framework, as it has

health effects and also contributes to safe and appropriate care and early learning opportunities, which are the pillars of this framework.

Contribution of ST-Malnourished Children at individual and global level

Direct and integrated services

Providing services directly to children and including a parenting skills development component is a more effective strategy than providing information alone.



General objectives of TS-Malnourished Children

- Prevent deficiencies,
- Reduce developmental delay,
- Improve motor, sensory, communication and cognitive skills,
- Support the mother/father/caregiver to stimulate and entertain the child by playing with him/her and continuing to care for him/her at home.

Fun and games are part of the therapy:

Through the fun of playing together with specific exercises, children and parents are empowered to thrive in their complex and changing environment.



ST-Malnourished Children remains an effective response a gap in projects for malnourished children

The literature review reports on the effectiveness of early childhood stimulation interventions in general in developing countries. Although the WHO recommends 15-30 minutes of one-on-one play with each SAM child per day outside of informal group play, projects for malnourished children rarely or never include this component.

Stimulation Therapy for malnourished children shows positive results on child development

Stimulation Therapy focuses on the prevention and reduction of developmental delays and is based on an individualised professional approach. According to a study conducted in Mali in 2014, interactive games with specific activities adapted to the child's abilities and age improve the child's overall development¹.

For a full and healthy life after recovery

Although survival is the primary goal, undernutrition can trap children, families, communities and nations in an intergenerational cycle of poor nutrition, disease and poverty. It is not enough to save lives if those saved are left with diminished capacity or disability. Stimulation Therapy for Malnourished Children contributes to the full development of children's potential, helping to break the vicious cycle of ill health and poverty.

Contribution to child protection

Stimulation Therapy contributes to the protection of children, especially in refugee camps or in emergency situations. Children who are encouraged to use their abilities to the fullest are more likely to protect themselves in a difficult environment.

Malnutrition enabled by our world in transition

The globalisation of trade markets, urbanisation, women's work, climate change, all have a profound impact on how we live and how we use natural resources, how food is produced,

¹ Stimulation Therapy in the management of severe acute malnutrition in children (HI, 2015).

what food we have access to, and its quality and cost. Child malnutrition therefore remains a challenge that requires a multi-sectoral approach.

Modalities and implementation of a Stimulation Therapy project

External criteria for starting a project

- A nutrition service
- Access to basic services especially food
- Available rehabilitation professionals

Elements to be implemented

- Setting up training and monitoring of rehabilitation professionals who run the Stimulation Therapy sessions
- Information and support for parents/caregivers and translators
- A Stimulation Therapy room for malnourished children at a location near the nutrition service and/or close to the community.

Various projects with partners

This or similar approaches have been implemented by HI in various ways in a number of countries or contexts: Mali, Burkina Faso, Niger, Somalia, Ethiopia and Myanmar to date. In Mali and Niger, the main partners were public health facilities with special sections for renutrition. In Ethiopia and Myanmar, the Stimulation Therapy projects are implemented with ACF (Action Against Hunger) alongside their nutrition centre. In Ethiopia and Myanmar, the projects target refugee or displaced families living in camps.

Stimulation Therapy for malnourished children complements the group stimulation and psycho-social care that is usually provided by HI's partners.

For all MAS children as a priority

ST-Malnourished Children is aimed at all SAM children. The fact that they are survivors of a Severe Acute Malnutrition episode is the reason why they should benefit from it.



Integrating Stimulation Therapy

1. Engage mothers, fathers, carers and grandmothers at community level.
2. Engage community workers in linking the community, children and their parents to the Stimulation Therapy service.
3. Work with stakeholders: nutrition workers and nutrition centre managers, local and regional government, international organisations, health facility administrators, business groups...
...in order to provide the best service and make it sustainable.

Key documents

- [1] [Management of severe malnutrition](#), WHO, 1999
- [2] [The state of the world's children](#), UNICEF, 2021
- [3] [Early childhood stimulation interventions in developing countries: A comprehensive literature review](#), Baker-Henningham, Florencia Lopez Boo H, (IDB working paper series ; 213) 2010
- [4] & [5] [The Stimulation Therapy for malnourished children 0-5 years](#), Policy Paper, HI, 2021; Training manual for rehabilitation professionals, HI, 2021
- [6] [Evaluation of the short-term effects of Early Childhood Stimulation Therapy in the management of severe acute malnutrition in children aged 6 months to 5 years in Bamako \(Mali\)](#), HI, 2015

Children are the adults of tomorrow, let us empower them to act and develop their full potential.



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