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Module Content Development

P2. Educational Program and Educational Materials

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MODULE 6

Healthy living: Nutrition, Physical activities & Sleep

Module Aim

The aim of this module is to empower parents of children with ADHD to understand how daily lifestyle habits—nutrition, physical activity, and sleep—affect attention, emotional regulation, and behavior. Parents will learn how to translate this knowledge into practical routines and strategies that fit real family life and support their child’s self-regulation, well-being, and social functioning.

Learning Objectives

By the end of this module, parents will be able to:

1. Explain how nutrition, movement, and sleep influence ADHD symptoms and emotional regulation.
2. Apply practical, age-appropriate strategies to support healthy habits at home.
3. Teach children with ADHD how to participate actively in their own healthy routines.
4. Maintain consistency and motivation using structure, predictability, and positive reinforcement.

Introduction

Living with a child who has ADHD can be demanding, especially when everyday routines such as meals, physical activity, and sleep become sources of stress or conflict. Children with ADHD often experience difficulties with self-regulation, emotional control, and transitions, which makes healthy daily habits harder to establish and maintain. However, these same daily habits play a crucial role in supporting the child’s brain, behaviour, and emotional well-being.

Healthy living is not about strict rules or perfection. For children with ADHD, nutrition, movement, and sleep act as regulatory tools that help the nervous system function more effectively. Regular meals support attention and emotional balance, physical activity helps



release excess energy and improve focus, and consistent sleep routines reduce irritability and impulsivity. When these elements are structured and predictable, they can significantly reduce daily challenges and improve quality of life for the whole family.

This module combines essential theoretical understanding with practical, realistic strategies that can be applied at home. Parents will learn not only *what* supports healthy living, but *how* to introduce, teach, and maintain these habits in ways that respect the child's needs, temperament, and developmental stage. The emphasis is on small, consistent steps, collaboration, and creating routines that support both the child and the family as a whole.

UNIT 1: Nutrition and ADHD

1.1 Why Nutrition Is Especially Important in ADHD

Children with ADHD often experience rapid changes in energy, mood, and attention. These changes are influenced by how the brain uses glucose and neurotransmitters such as dopamine. Irregular meals, high sugar intake, or skipping breakfast can intensify:

- hyperactivity,
- irritability,
- emotional outbursts,
- difficulty concentrating.

Nutrition does not “cure” ADHD, but it **supports the brain's ability to regulate itself**. For children with ADHD, *when* and *how* they eat is often as important as *what* they eat.

A balanced diet can help manage ADHD symptoms by providing essential nutrients like omega-3s, iron, zinc, and magnesium, which are crucial for brain function. Avoiding high-sugar, high-sodium, and highly processed foods can prevent blood sugar spikes and crashes that worsen symptoms like hyperactivity, poor focus, and agitation. Staying hydrated and eating regular meals, especially a protein-rich breakfast, also supports attention and mood regulation.



What Parents Should Aim For

Parents should focus on:

- regular meal and snack times,
- balanced meals with protein,
- reducing extremes (very sugary or highly processed foods),
- creating calm, predictable eating routines.

1.2. Practical Strategies Parents Can Use

1. Establish Fixed Meal Times

Children with ADHD benefit from routine.

What to do:

- Set 3 main meals and 2 small snacks daily.
- Avoid long gaps without food.

Why it helps:

Stable blood sugar improves attention and reduces emotional volatility.

2. Make Breakfast a Priority

Many children with ADHD start the day already dysregulated.

Parent strategies:

- Wake the child 10–15 minutes earlier.
- Prepare breakfast the night before.

Quick breakfast ideas:



- Yogurt + fruit + nuts
- Egg sandwich
- Milk + oats
- Toast with peanut butter

3. Include Protein in Every Meal

Protein supports neurotransmitter production and focus.

Teach your child:

“Protein helps my brain stay calm and focused.”

Examples:

- Eggs, chicken, fish
- Beans, lentils
- Cheese, yogurt
- Nuts and seeds

4. Reduce Sugar Without Power Struggles

Sugar causes energy spikes and crashes.

What works better than banning:

- Pair sweets with meals.
- Offer fruit as the first option.
- Keep sugary snacks out of sight, not forbidden.

5. Involve the Child Actively

Children are more cooperative when they feel involved.



Ideas:

- Let them choose between two healthy options.
- Cook together once a week.
- Draw or photograph meals to build awareness.

1.3. Things to Avoid

- Using food as punishment or reward.
- Long lectures about “good” and “bad” food.
- Expecting immediate change.

Important considerations

- **Consistency is key:** Regular meals help maintain stable blood sugar and can prevent symptoms from being amplified.
- **Make every calorie count:** Since ADHD medications can suppress appetite, choose nutrient-dense foods when you or your child does eat.
- **Consult a professional:** A doctor or registered dietitian can help determine if supplements are necessary and provide personalized dietary guidance.
- **Individual responses vary:** Some people may be sensitive to certain foods, such as gluten or dairy, which can cause inflammation.
- **Medication and diet:** Citrus fruits can interfere with the absorption of short-acting stimulant medication, so it's best to avoid them while the medication is active
- Drink plenty of water throughout the day



Parent Reflection Checklist (Weekly)

- Were meals predictable this week?
- Did sugar affect my child's mood or focus?
- What worked well?
- What small change can we try next week?

UNIT 2: Physical Activity and ADHD

2.1 Why Physical Activity Is Essential in ADHD

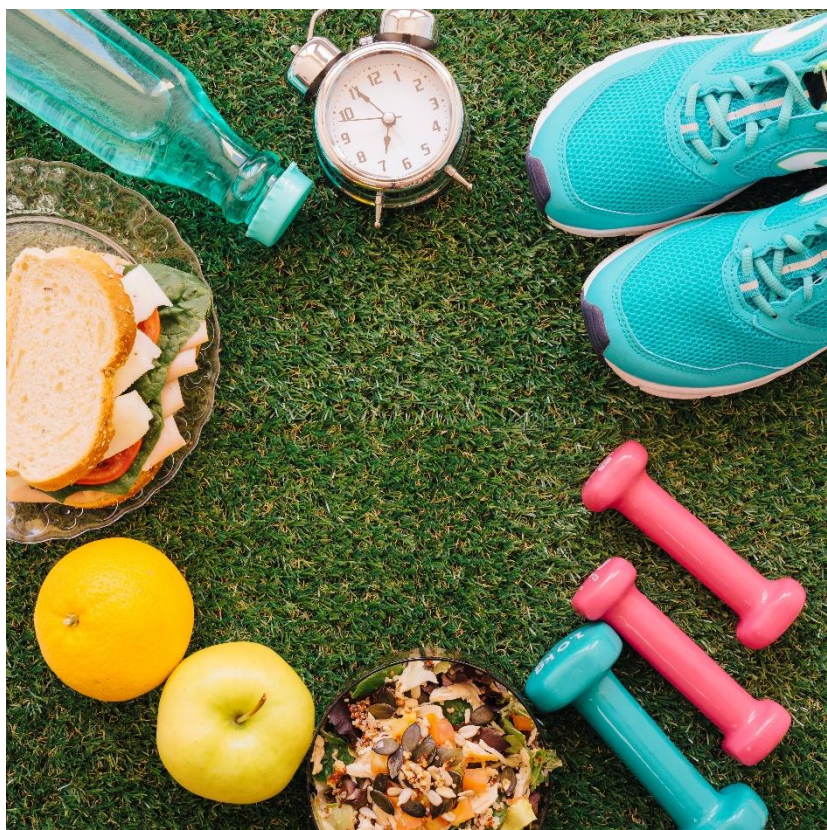
Movement helps children with ADHD:

- release excess energy,
- regulate emotions,
- improve attention,
- build self-esteem.

For many children with ADHD, physical activity is not optional—it is a **biological need**.

Image source:

Freepik





2.2 What Parents Should Aim For

- Daily movement (not necessarily sports)
- Structured and predictable activities
- Focus on enjoyment and success

Practical Strategies Parents Can Use:

1. Choose the Right Type of Activity

Not all sports are suitable for every child.

Often helpful activities:

- Swimming
- Martial arts
- Athletics
- Cycling
- Dance
- Structured team sports with support

Parent tip:

Start with individual or small-group activities.

2. Create a Weekly Movement Routine

ADHD children struggle with unplanned activity.

Example routine:

- Monday: swimming
- Wednesday: football



- Daily: 15-minute walk or active play

3. Teach Emotional Skills Through Movement

Sports are learning spaces.

Parents can teach:

- waiting turns,
- handling frustration,
- coping with losing.

Helpful language:

“You felt angry, but you stayed. That’s progress.”

4. Use Positive Reinforcement

Motivation in ADHD is delayed.

Examples:

- Sticker charts
- Verbal praise
- Small rewards for consistency



Image source: Freepik

Weekly Physical Activity Checklist (For Parents)

- My child moves every day (even briefly)
- Physical activity is part of a routine
- The chosen activity suits my child's needs
- My child feels successful, not pressured
- Praise or encouragement is given consistently
- Overstimulation is avoided



UNIT 3: Sleep and ADHD

3.1. Why Sleep Is Often Difficult in ADHD

Sleep management with ADHD involves establishing a consistent sleep schedule, creating a relaxing bedtime routine and optimizing the sleep environment by making it dark, quiet, and cool. It is also crucial to limit stimulating substances like caffeine, avoid screens before bed and keep a routine for the bed-time and when getting ready .

- Go to bed and wake up at the same time every day, including weekends, to regulate your body's natural rhythm.
- Avoid long or late-afternoon naps, as they can interfere with nighttime sleep.

Children with ADHD often feel alert at night, struggle to slow their thoughts, or are sensitive to light and noise.

Poor sleep worsens:

- impulsivity,
- emotional reactivity,
- attention difficulties.

What Parents Should Aim For

- Consistent bedtime and wake-up times
- Calm, predictable routines
- Reduced stimulation before sleep

3.2. Practical Strategies Parents Can Use

Create a relaxing bedtime routine for children:

- Engage in calming activities an hour or so before bed, such as reading a book, taking



a warm bath, or listening to quiet music.

- Avoid stimulating activities, mentally demanding tasks, and high-stakes projects in the evening.
- Practice relaxation techniques like deep breathing or mindfulness meditation to help quiet the child's mind.



Image source: Freepik

Optimize sleep environment

- Make child's bedroom dark, quiet, and cool to promote sleep.
- Consider using a white noise machine or earplugs to block out distracting sounds.
- Keep screens, such as smartphones and TVs, out of the bedroom or turn them off at least an hour before bed, as their blue light can disrupt melatonin production.
- Make the bed a stress-free zone reserved for sleep only.



Adjust lifestyle habits

- Avoid caffeine, nicotine, alcohol, and large meals close to bedtime.
- Get regular exercise during the day, but avoid vigorous workouts too close to sleep time, as it can increase alertness.

Consult with a healthcare provider

- A doctor can also help diagnose and treat any underlying sleep disorders like sleep apnea, which can be linked to ADHD
- Talk to a doctor about the timing of your child's ADHD medication, especially stimulants, as taking them too late can interfere with sleep.
- Discuss any concerns about medication with the doctor; they may be able to adjust the dose or timing or suggest a different medication.



Image source: Freepik



Foods to limit or avoid

- **High-sugar foods and drinks:** Cause blood sugar spikes and crashes that can worsen mood, focus, and energy levels.
- **Highly processed foods:** Often lack essential nutrients and can be high in unhealthy fats, sugar, and sodium.
- **Caffeine:** Can disrupt sleep, which is crucial for managing ADHD symptoms.
- **Artificial food additives:** Some studies suggest they can increase hyperactivity in certain children.

Final Key Message for Parents

Healthy living habits support ADHD by strengthening the child’s ability to regulate emotions, behaviour, and attention. These habits work best when they are structured, predictable, and taught gradually. Parents are not expected to be perfect—small, consistent changes create meaningful and lasting improvements.

Further reading

Resource name	Type	Link
Exercise and ADHD	Website	https://www.berkeleypsychiatrists.co.uk/blog/exercise-and-adhd
The role of nutrition to the treatment of children with ADHD	Website	https://i-paidi.gr/2016/08/10/the-role-of-nutrition-to-the-treatment-of-children-with-adhd-2/
How to sleep when you have ADHD	YouTube	https://www.youtube.com/watch?v=wzC_f8dagZ0



Final Assessment Quiz

Answer the following questions to check your understanding of the key concepts and practices from this module. Select the correct answer or mark True/False as indicated.

Module (6) Healthy living: Nutrition, Physical activities & Sleep

1. What does “healthy living” mean for a child with ADHD?

- A. Allowing the child to eat anything as long as they stay calm
- B. Limiting physical activity because the child gets tired easily
- C. Focusing only on sleep duration, without routines
- D. Supporting healthy habits through routines, structure, and positive reinforcement

Correct Answer: D

2. Which statements about healthy living for children with ADHD are correct?

(More than one answer may be correct)

- A. Parents may need guidance from professionals to support healthy routines
- B. Family traditions alone are always enough to manage healthy living
- C. Both parents often seek advice about nutrition, sleep, and physical activity
- D. Physical activity refers only to competitive sports

Correct Answers: A, C

3. True or False

a) If ADHD exists in the family, there is no need to support or manage healthy habits.

✓ **Correct Answer: False**

b) Waking a child slightly earlier to allow time for breakfast can support attention and emotional regulation.

Correct Answer: True



4. In the context of ADHD, nutrition refers to:

- A. Eating breakfast only
- B. Eating mainly fried or baked foods
- C. Using nutritional supplements instead of meals
- D. Providing regular, balanced meals that support brain function

Correct Answer: D

CASE STUDIES

Module Number:	Module 6
Case Study 1 Title:	Healthy living: Nutrition & Sleep
Exercise Objective:	Parents / teachers / guardians will develop effective strategies for managing and supporting their child's ADHD by practicing healthy nutrition and sleep organization.
Characters:	"F": 11 years boy, his 2 sisters, his mother, his father, his grandfathers, his grandmothers
The Challenge/Problem:	"F" always listens without eye contact; not interested in any sports & academic progress, has no friends, eats junk food. His father who has ADHD too, always quarrel with each other.
The story:	<p>"F" is a polite boy, but his anxiety and stress are evident in his voice and body language, particularly at the beginning of our meetings. He often stays awake until 12:30–1:00 a.m., which contributes to his irritability and social withdrawal. Coming from a large family and having experienced prior challenges, "F" has no close friends and is rarely invited to social events.</p> <p>This study examines a case of ADHD with predominantly inattentive presentation, focusing on unhealthy lifestyle habits, particularly irregular sleep patterns and poor nutrition. Four years ago, "F" began therapy with a psychologist and an occupational therapist for 14 months, but his progress was inconsistent, and during school holidays his difficulties returned. Two years ago, his parents sought additional support, and although he briefly engaged in sports, he discontinued after two months. Four months ago, "F" and his parents visited our clinic to address ongoing challenges.</p> <p>After thorough clinical observation and assessment, the intervention focused on improving self-esteem, social skills, and attention through healthy nutrition and sleep regulation. "F" began following structured daily routines, including a balanced diet and fixed sleep schedule. Nutritional guidelines emphasized sugar-free, natural or organic foods, avoidance of artificial products, stable meal times, and adherence to a Mediterranean-style diet. Evening routines included a 20-minute shower at 21:30–22:00, after which he prepared for bed without electronic devices.</p> <p>To reinforce these habits, behavioural strategies were employed, including:</p> <ul style="list-style-type: none"> • Positive reinforcement for adherence to diet and sleep routines.



- **Parental cooperation** to maintain consistency and support progress.
- **Engaging activities**, such as drawing or photographing himself during meals, to build awareness and motivation.

After two months of intervention, “F” demonstrated improved organization, better emotional regulation, and increased alertness during the day. Structured sleep and nutrition supported greater self-confidence, attention, and readiness to engage socially.

Suggested Healthy Activities/Recipes:

Preparing sugar-free snacks or natural desserts (e.g., ice cream with honey, fruit-based treats). Link: <https://i-paidi.gr/2017/09/05/ice-cream-honey/>

Participating in meal planning and cooking to reinforce healthy eating habits.

Link: <https://i-paidi.gr/2017/07/12/home-made-bread/>

Drawing or documenting meals to encourage mindfulness and reflection on daily habits.

Exercises

Answered by learners individually

Individual exercise 1:

Exercise/Question	Answer
What were the key factors contributing to the challenge in case study 6.1?	Late bedtime, unhealthy nutrition, high anxiety, and lack of daily structure.

Individual exercise 2:

Exercise/Question	Answer
What were the goals after having checked “F” ‘s deficits?	To improve his sleep routine, establish healthy eating habits, boost self-esteem, and strengthen attention and social skills.

Individual exercise 3:

Exercise/Question	Answer
How did he succeed to follow the new norms at his life?	Through structured routines, parental cooperation, and consistent positive reinforcement.

Answered by learners in a group (2+ people)



Group exercise 1:

Exercise/Question	Answer
Write the first 2 tips for a child with ADHD to be willing to adapt healthy living	Introduce small, simple changes, Make healthy choices enjoyable (e.g., fun recipes or choosing their own healthy snacks).

Group exercise 2:

Exercise/Question	Answer
How long is needed to see the benefits for sleeping because of the intervention?	About two months of consistent practice.

Group exercise 3:

Exercise/Question	Answer
How can healthy recipes support a child with ADHD in developing better habits?	Healthy recipes make nutritious eating enjoyable and engaging, helping the child stay motivated while improving energy, attention, and emotional balance.

Module Number:	Module 6
Case Study 2 Title:	Healthy living with Physical Activities
Exercise Objective:	Parents / teachers / guardians will develop effective strategies for managing and supporting their child’s ADHD by practicing healthy living and physical activities.
Characters:	“T”: 11 years boy, his sister, his mother, his father, his grandmothers
The Challenge/Problem:	Cannot maintain eye contact; not any interest for friends; unable to belong to a team; his father and grandfather have ADHD too and didn’t know how to manage it.
The story:	<p>“T” is a polite, well-mannered, and neatly dressed boy with a strong natural interest in sports—especially football. His family proudly shared his passion, celebrating every goal as if it were their own. However, “T” was also living with ADHD, which made it difficult for him to cooperate with multiple peers at once, sustain attention, and manage social interactions during team sports.</p> <p>This case study explores how healthy lifestyle habits and structured physical activity supported the development of a young boy with predominantly hyperactive-impulsive ADHD.</p> <p>Six years ago, after being identified as at risk for ADHD, “T” received support from a psychologist and an occupational therapist using a computerized platform. Despite 14 months of work, progress was minimal. Two years ago, his parents sought help from another specialist who encouraged “T” to continue with football, honoring his preferences. However, he discontinued</p>



	<p>after one month due to difficulties managing the demands of the team environment.</p> <p>Four months ago, “T” and his parents visited I-PAIDIs offices. Following detailed assessment and clinical observation, a holistic plan was developed focusing on healthy living practices, improved social interaction, and enhanced attention through an appropriate physical activity:</p> <ul style="list-style-type: none"> • Regular physical exercise to regulate hyperactivity • Behavioral rewards to encourage persistence and healthy routines • Cooperative strategies between parents and the therapist • Building confidence through achievable physical challenges <p>As “T” began experiencing success in the sports program, positive changes emerged at home. He returned from sessions feeling confident and more willing to communicate. For the first time, he actively participated in family conversations, proud of his accomplishments at the sport center.</p> <p>After one month of integrated intervention—including structured physical activity, healthy-habit reinforcement, reward systems, and consistent parental collaboration—“T” showed significant improvements. He began studying independently, following his daily routine more reliably, and became more active physically.</p>
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Exercises

Answered by learners individually

Individual exercise 1:

Exercise/Question	Answer
What were the key factors contributing to the challenge in case study 6.2?	ADHD symptoms making attention, cooperation, and social interactions difficult. Difficulty participating in team sports due to overstimulation.

Individual exercise 2:

Exercise/Question	Answer
Which were the challenges in “T” ‘s life?	Trouble following routines and staying focused. Doesn’t have an interest for making friends. Struggles with honesty, independence, and family communication.

Individual exercise 3:

Exercise/Question	Answer
How did he succeed in following the new norms in his life?	Starting a structured physical activity suited to his needs. Receiving consistent rewards and positive



	reinforcement. Strong cooperation between parents and therapist.
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Answered by learners in a group (2+ people)

Group exercise 1:

Exercise/Question	Answer
Write the adding benefit of the taking part in appropriate physical activities for ADHD	Boosted confidence - For the first time, he actively participated in family conversations, proud of his accomplishments at the sport center.

Group exercise 2:

Exercise/Question	Answer
How long is needed in order to see the benefits for ADHD because of the physical activities intervention?	After 1 month of intervention, sports, rewards and cooperation with his parents.

Group exercise 3:

Exercise/Question	Answer
Why was choosing the right physical activity important for "T"?	Selecting a structured, individualised sport helped him stay focused, reduced overstimulation, and allowed him to experience success, which improved his motivation, self-confidence.

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