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EFFECT

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Pedagogical material on food education towards children for trainers

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PR2: Pedagogical material on food education towards children for trainers

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Part A (2-3 pages)

Scientific evidence

Physical activity is defined as any bodily movement produced by skeletal muscles that requires energy, even during leisure time, to get to and from certain places, or as part of a person's work (1).

There is overwhelming evidence for the lifelong health benefits of a physically active lifestyle and the health risks of inactivity and sedentary behavior. Some benefits that has been demonstrated of the physical and active lifestyle in children are (1, 2, 3):

- Maintenance of healthy weight
- Mental health (reduction of symptoms of depression)
- Wellbeing
- Physical condition (cardiorespiratory and muscular)
- Cardiometabolic health: blood pressure, dyslipidemia, hyperglycemia, and insulin resistance.
- Bone health
- Cognitive outcomes (academic performance and executive function)

By another way, the risks of the sedentary life in children are related to (4,5):

- An increase in adiposity (weight gain)
- Poorer cardiometabolic health, physical fitness, social behavior
- Shorter sleep duration

The WHO guidelines and recommendations provide detailed information in terms of different age groups and specific population groups on the level of physical activity necessary for good health. The WHO recommends for children between 5 to 18 years (1):

- They should spend at least an average of **60 minutes a day** in moderate to vigorous physical activity, mainly aerobic, throughout the week.
- They should incorporate vigorous aerobic activities, as well as those that strengthen muscles and bones, at least **three days a week**;
- **Should limit time spent in sedentary activities**, particularly leisure time spent in front of a screen

The interviews and discussion groups conducted in Spain, Greece and France, highlighted several relevant aspects regarding the healthy and active lifestyle in children:

- **Physical activity depends on the family environment**

“I think it is very important to educate parents about this” (canteen operator, Spain)

Therefore, the proposal of activities that increase physical activity and decrease sedentarism in the kids, should be focused not only on schools, but also at home, and involving all the families' members.

➤ **The schools play an important role at incrementing the hours of the physical activity between the children**

In France for example, there is a new regulation at the schools that encourages children to do from 15 to 30 minutes of physical activity per day, and it is up to the teacher to organize it with any kind of activity (sport, dance...).

➤ **Positive changes in physical activity, as some schools offer extra-curricular activities**

Extracurricular activities related to sports (football, basketball...) also seem to be a good opportunity to increase the active hours of the children.

➤ **Take advantage of the environment**

Some teachers indicated to benefit from the environment around the school, like the park or the forest, for example they suggest to tell the parents:

«there's the park nearby where you can run around after school to let off steam »

➤ **The lunch break as well as the breaks during the day are considered by the children as "free time", and therefore will often be used to set up games.**

These times are considered a good opportunity to encourage the children to be more active.

But, what's happening nowadays with the PA and the children? Are they having an active or a sedentary lifestyle?

A recent study, examined the prevalence and correlates of physical activity and screen time from a large sample of European children during the COVID-19 pandemic (7), concluded that during the pandemic conditions only 19% of the children from 6 to 18 years old, met the WHO Global physical activity recommendation.

NATIONAL RECOMMENDATIONS OF PA IN EUROPEAN COUNTRIES

France: Children between the ages of 5 and 17 years are advised to engage in 60 minutes of moderate- to vigorous-intensity physical activity (MVPA) on a daily basis.

Spain:Children and young people aged 5-17 years should accumulate at least 60 minutes of moderate- and vigorous- intensity physical activity daily (420 minutes per week).

Greece:

Germany: Current guidelines recommend a minimum of 60 minutes of moderate to vigorous physical activity daily for children and adolescents.

Taking into account all the information and the link between early life experiences related to health and later health outcomes (because encouraging children to have a more active lifestyle will lead them to be a healthier adulthood), to animate children to have an active lifestyle became a primordial action.

1. World Health Organization. WHO Guidelines on Physical Activity and Sedentary Behaviour; World Health Organization: Geneva, Switzerland, 2020.
2. World Health Organization. Guidelines on Physical Activity, Sedentary Behaviour and Sleep for Children under 5 Years of Age; World Health Organization: Geneva, Switzerland, 2019.
3. Alvarez-Pitti, J.; Casajús-Mallén, J.A.; Leis-Trabazo, R.; Lucía, A.; de Lara, D.L.; Moreno-Aznar, L.A.; Rodríguez-Martínez, G.Exercise as medicine in chronic diseases during childhood and adolescence. *Anales Pediatría* 2020, 92, 173.e1.
4. Ariza, C., et al., The Incidence of Obesity, Assessed as Adiposity, Is Reduced After 1 Year in Primary Schoolchildren by the POIBA Intervention. *J Nutr*, 2019. 149(2): p. 258-269.
5. Sanchez-Martinez, F., et al., Three-Year Follow-Up of the POIBA Intervention on Childhood Obesity: A Quasi-Experimental Study. *Nutrients*, 2021. 13(2).
6. [Viktoria A. Kovacs](#) ,[Gregor Starc](#),[Mirko Brandes](#),[Monika Kaj](#),[Rok Blagus](#),[Bojan Leskošek](#). **Physical activity, screen time and the COVID-19 school closures in Europe – An observational study in 10 countries.**
SPORT & EXERCISE MEDICINE & HEALTH

Part B (8-12 pages)

Fun activities (title, duration, description, objective, main activity, take home message per activity)

Each module should be about 10-15 pages.

TECHNICAL SPECIFICATIONS

Each chapter page must contain a header (module name), and a footer of the total page number. The following Table (Table A) lists the Formatting Constraints that must be followed for the layout.

Table A. Formatting Constraints

Page Size	Fonts	Font Size	Line Spacing	Margins
A4	Times New Roman	12 pt	Single	Top-Bottom: 1,5 cm Left-Right: 2 cm

Template for Part B

GENERAL INFORMATION : TABLEBOARD OF ACTIVE LIFESTYLE

DESCRIPTION

....

OBJECTIVE: To encourage Children to be more active by doing different physical activities at home and at school

...

Main activity/game/quiz etc.

The main activity is a table board of monthly activities that it will be filled with POINTS. The table board is divided in **2 rows and in 4 columns.**

The 2 rows:

- FUN ACTIVITIES WITH THE FAMILY
- FUN GAMES AT SCHOOL

The 4 columns:

- Week 1
- Week 2
- Week 3
- Week 4

Each activity scores:

- 2 points if done correctly
- 1 point if the weekly target has been completed but not reached at all
- 0 points if it has not been done

Total points monthly: 16

Tip or take home message:

To be more active is fun for everyone

ACTVITIY	Week 1	Week 2	Week 3	Week 4
ACTIVE LIFESTYLE	/2	/2	/2	/2
FUN GAMES AT SCHOOL	/2	/2	/2	/2
TOTAL STARS WEEKLY	/4	/4	/4	/4
TOTAL STARS	/16			

GENERAL INFORMATION : ACTIVE LIFESTYLE

DESCRIPTION

List of daily activities that children, family and teachers can do to be more active day after day.

OBJECTIVE: To encourage Children to be more active by doing different daily things, like part of the routine

...

Main activity/game/quiz etc.

Daily you can do different things to be more active:

- Take the stairs
- Go for a walk of 10 minutes after school
- Go to the market to buy fresh food
- Walk to the school
- Have some bike rides
- Help cleaning the house
- Set the table for having breakfast, lunch or dinner

If at the end of the week, you have done all the activities, you earn 2 points in the active lifestyle board

If at the end of the week, you have done half of the activities, you earn 1 point in the active lifestyle board

If at the end of the week, you haven't done any of the activities, you earn 0 point in the active lifestyle board

Tip or take home message:

We can be more active everyday by doing little things

GENERAL INFORMATION : FUN GAMES AT SCHOOL

DESCRIPTION

List of activities + games that children could do at school

OBJECTIVE: To encourage Children to be more active by doing different games and activities. The objective is to do 3 hours per week

Main activity/game/quiz etc.

Weekly you can do different activities and games at school to be more active:

- Hide and seek,
- Red light green light,
- Button button,
- Hupscotch
- Backyard or park obstacle race
- Indoor circuits
- Dance classes
- Racings
- Go for a walk around the neighborhood to discover the city
- Bowling
- Football play
- Basketball play
- Gymnastics
- Volleyball

If at the end of the week, you have done some activities that take 3 hours per week, you earn 2 points in the active lifestyle board

If at the end of the week, you have done some activities that take 1,5 hours per week, you earn 1 point in the active lifestyle board

If at the end of the week, you haven't done any of the activities, you earn 0 point in the active lifestyle board

Tip or take home message:

We can be more active doing sport lessons and games at school