

Promoting physical activity among youth and adolescents: "Active Break" project

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Abstract

Problem: globally, physical inactivity is a major cause of mortality; a high percentage of the population does not satisfy the World Health Organization's guidelines (WHO). The subject of Physical Education assumes an essential role since it provides a positive effect on the levels of physical activity of moderate-vigorous intensity in children and adolescents. Although the subject may only provide a few lessons per week, the school environment itself is considered the best environment to promote physical exercise. In order to decrease the prevalence of physical inactivity in the target population (predominantly adolescents), the "Active Break" programme emerged as an intervention aimed at increasing the levels of physical activity in a motivating and harmonious way. **Objective:** to describe the school intervention program called "Active Break". **Results:** due to administrative-logistical issues related to the school year planning, the implementation of this project took place in only one session, which limited the improvement at the level of practical intervention. However, the feedback we received from the students was positive and they showed willingness to repeat the experience, therefore this project can be a basis for its subsequent implementation in educational institutions. **Conclusion:** although the number of weekly sessions is small compared to the global recommendations provided by the WHO, the gradual increase in healthy habits can provide significant long-term improvements. The programme can be seen as a health promoter in a health promoting school. It is expected that this project will be useful to motivate the implementation of educational actions aimed at preventing or mitigating the negative effects of a sedentary lifestyle in young people.

Keywords: health, physical activity, sedentary lifestyle, physical education, young people.

Introduction

Globally, physical inactivity is a major cause of mortality; an estimated 4-5 million deaths annually may be avoided if people were more physically active (Lee et al., 2012; Strain et al., 2020). Physical inactivity is characterised as not meeting WHO physical activity guidelines (WHO, 2020). According to global estimates of physical inactivity, between 27.5% and 81.0% of teenagers did not fulfil WHO guidelines for physical activity in 2010 in the year 2016 (Guthold et al., 2018, 2020), and the statistics reveal a pattern of modest progress over the previous ten years. In most countries, women are less physically active than males, yet there are big variations across and within nations and regions. Uneven access to opportunities for physical exercise, which highlights health inequities, is one of the explanations offered for the discrepancy in following physical activity guidelines.

The Global Action Plan on Physical Activity 2018-2030 was created in order to address the high rates of physical inactivity throughout the world (Nau et al., 2021). This plan aims for the execution of 20 policy measures and 4 strategic targets to achieve a 15% reduction in the overall incidence of inactivity in adults and adolescents by 2030.

Numerous detrimental health diseases, including certain malignancies, diabetes, dyslipidaemia, hypertension, immunological deficiencies, metabolic syndrome, neurological disorders, depressive disorders, osteoporosis, obesity, sarcopenia, and others are strongly correlated with physical inactivity (Knight, 2012).

Deconditioning, the partial or complete reversal of physiological adaptations to exercise, is promoted by a major reduction in or complete cessation of physical activity and increasing physical inactivity. Deconditioning affects muscular tissue more severely, including the heart (Hather et al., 1992; Staron et al., 1991). There may be a connection between prolonged periods of inactivity and impaired metabolic function, decreased bone mineral density, metabolic dysfunction, and issues with the neuromuscular system (Knight, 2012; Lee et al., 2012; Neuffer, 1989; Vukovich et al., 1996).

The necessity for human activity throughout the day has decreased as a result of the exponential growth of technology during the past century. These technological advancements have also reduced the movement required for this purpose, further simplifying daily duties. Long times at school and less active commutes are some factors that encourage young people to spend more time sitting down (McDonald, 2007). The discipline of Physical Education assumes an essential role as it provides a positive effect on the levels of physical activity at moderate-vigorous intensity in children and adolescents (Lonsdale et al., 2013). However, despite the fact that the subject may only provide a few weekly lessons, the school setting itself is seen to be the best setting for promoting physical exercise (Heath et al., 2012).

Project Active Break

Due to the decreased workload of physical education in our nation, we felt the need to develop a programme to assist combat youth physical inactivity in order to raise healthy children and promote their bodily, psychological, and social well-being. This is why we developed the Active Break programme (Figure 1), which aims to increase students' levels of physical activity as well as their propensity to engage in it. It also promotes motor development in young students by encouraging them to engage in physical activity through a more playful approach.

Figure 1. Illustration of the first session of the Active Break programme.



Having the ideal perception that the "Active Break" program's workload is relatively light, it serves to supplement any form of physical activity that students may already engage in, assisting in meeting the WHO's recommendation for a minimum of 60 minutes of moderate to vigorous physical activity each day. The insertion of the playful aspect is intended to stimulate the motivation of students to develop the practice of physical activity outside the school context.

Method

The programme consists of playing a activity/game three times a week until the end of the school year, during the first break in the morning, using it partially for the implementation of the activity (the ideal will be to structure the activity in terms of time, so that students can perform it and have time to go to the next class in advance). Each day a different activity will be carried out, in order to provide several different stimuli in students, always promoting the aspect of fun so that the motivation levels are high. To this end, the following schedule was defined (Table 1): on Mondays, Wednesdays, and Fridays, after the first lesson of the morning, the students meet with the

teachers responsible for the programme in the sports hall to start the activity assigned for that day. Preferably, the task is performed in the outdoor field, being only performed inside the pavilion when weather conditions do not allow the practice outdoors.

The teacher begins with a brief instruction about the activity to be performed, being present during the whole task and making it operational, not being concerned with giving feedback, but rather with regulating its good functioning, maximising the students' motor commitment time.

Table 1. Overall planning of activities.

Session	Activity	Description
1	Hunting with Numbers	<p>Caught with two hunters (two students). During the dynamic, the teacher mentions a number, corresponding to a previously stipulated exercise. After hearing the number, the students stop and perform the eight repetitions of the movement, and then return again to the initial part.</p> <p>1- Squatting 2- High Skipping 3- Lunges 4- Burpees 5- Lounge forward</p> <p>Whoever is caught, does the previous exercise to which they were caught, until a colleague touches them</p>
2	Human Rope	Initially, pupils choose one end of the rope and from that point on, they begin to join the maximum number of pupils to form the complete rope.
3	Crocodile River	A space is stipulated, which will be divided into 3 parts, with the river bank on the right, the river, and the river bank on the left. There are 3 crocodiles (3 pupils) in the river that do not make it easy to cross from one bank to the other.
4	Student Designed Games	Catching game with the aim of stimulating problem solving by the students. For example, when the student becomes the hunter, he/she has to assign a new rule to the dynamic (e.g. it is only possible to escape by jumping/crabbing).
5	Safe House	Students do a stipulated functional circuit and each student has a directed number (e.g. class no.). During the performance, the teacher says the word "Up" and a number. Afterwards, the student to whom the referred number belongs tries to touch as many students as possible to convert them into score, i.e. if the chosen student catches 5 students, a total of 5 points are awarded. The aim of the rest of the pupils is to escape and hide in the safe house until further notice. The winner must reach 20 points.

Results

First reactions and perspectives

Due to administrative-logistical issues related to the school year planning, the implementation of this project took place in only one session (with the implementation of the activity "hunting hunt with numbers"), which limited the improvement at the level of practical intervention. However, the feedback we received from the students was positive and they showed willingness to repeat the experience, therefore this project can be a basis for its subsequent implementation in educational institutions.

The perspectives with the implementation of this project were related to an increase in motivation and the very practice of physical activity, autonomously, by the students. This stimulus inducing increased levels of physical activity in young people and adolescents may assume an essential and impactful role in the long term.

Conclusions

Taking into account the high levels of physical inactivity present among children and adolescents, the need arose for an intervention to address this situation. A programme was created, called Active Break, which aims essentially to increase the levels of physical activity during student's break times. Although the number of weekly sessions is small compared to the global recommendations provided by the WHO, the gradual increase in healthy habits can provide significant long-term improvements. The programme can be seen as a health promoter in a health promoting school.

It is expected that this project will be useful to motivate the implementation of educational actions aimed at preventing or mitigating the negative effects of a sedentary lifestyle in young people.

Limitations

As mentioned, the proposal could only be partially implemented, and although it could be useful to motivate students, its effect, as a stimulus, was limited, given the serious consequences of a sedentary lifestyle for the young population. This fact, in some way, may reflect society's lack of interest in preventing its negative consequences.

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