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Letter to the Editor

Lessons learned from COVID-19 in schools: the role of Physical Education in promoting health

Lecciones aprendidas gracias al COVID-19 en las escuelas: el papel de la Educación Física en la promoción de la salud

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Key Points

- The measures imposed to control the transmission of COVID-19 have caused a negative impact on physical activity among schoolchildren affecting their health.
- Physical Education must be one of the fundamental elements for health promotion in the school population.
- In addition to physical activity, Physical Education must integrate concepts related to medicine, physiology and nutrition to become an essential element of complete health training.

The COVID-19 pandemic had exposed the educational system to a stressful situation never seen before, in a moment when it already had a highly compromised condition, especially in the field of Physical Education.

The closure of schools during lockdown has had devastating health consequences among children. An Editorial by Chulvi-Medrano et al.¹ illustrates how the declining of physical activity levels among young people during confinement, directly impact on their health, specifically, by increasing weight gain and deteriorating mental health, which may lead to the development of what is known as “depreobesity”.

Confinement has meant, not only the loss of physical training, but also the cessation of all kinds of group activities, team sports, and other recreational options related to movement, such as parks and leisure areas or swimming pools, which are attended on an extra-curricular way. After the confinement was over, at least in Spain and other countries, there has been a supposed return to normality, in which, on many occasions, the physical education teaching hours have not been reinstated or non-federated sports participation has not been recovered.

This lack of exercise at schools implies that 37% of Spanish school-age children, between 6 and 18 years old, will have stopped performing the only physical activity they develop on a day-to-day basis (47% when referring to female school population)². In 2019, a study³ in Spain, has shown that only 36.7% of the child and adolescent population comply with the World Health Organization (WHO) recommendation, of a daily minimum of 60 minutes of physical activity of moderate or vigorous intensity. It is expected that these data have worsened during 2020, due to the imposed restrictions.

However, great crises offer unique opportunities to rethink the status quo. The COVID-19 pandemic has forced all professionals, including Physical Education teachers, to acquire new knowledge and skills, some of them related to the medical field and specifically, how to manage the different risk scenarios for disease transmission⁴.



SARS-CoV-2 is a betacoronavirus that can spread from person to person, and between people closer to one another. It is spread mainly by droplets made when people with the illness (COVID-19) cough, sneeze, sing or talk, etc., and sometimes spread by airborne transmission of the generated aerosols. Therefore, crowded indoor environments with sustained close contact and conversation, such as gyms and classrooms, have been considered less safe indoor environments⁶.

In the absence of effective treatment, the main measures to prevent the transmission are to keep a safe distance, the use of masks, and disinfection and hygiene. Regarding measures:

- **The safety distance:** It has implied a radical change in planning the lessons, forcing to minimize physical contact between students. New proposals for games and physical space distribution have been designed, stimulating creativity. Collaborative repositories have been created to provide examples of new activities for lessons. Some have developed online training proposals which have improved teachers and student's computer skills⁷.
- **Safer outdoor activities:** Open and green spaces such as parks or gardens near the school centres, have been recovered to promote physical activity in natural environments leading to extra health benefits from nature experiences⁸.
- **Disinfection and hygiene:** The need to maintain frequent cleaning of surfaces and material has been an opportunity for learning values, but also an ideal moment to teach students about respiratory etiquette and hand washing, that is, to educate on healthy habits.
- **Use of masks:** Physical Education has had to learn the effectiveness and usefulness of each type of masks and the physiological repercussions of performing physical activity wearing a mask and, therefore, the best way to adapt it to the conditions of different age groups.

Besides, the teaching staff has been forced to live with terms related to the pathogenesis of the disease. The immune response, obesity and their interaction have been frequent topics in recent COVID-19 literature due to its relationship with severe forms of the disease⁹. Obesity is the most frequent comorbidity among children who required hospitalization in some of the published series. Positioning Physical Education to develop immunologically healthy children, who will also become non-obese adults, is a must.

Physical exercise has been shown to have immunomodulatory properties. It contributes to the metabolic health of individuals, significantly reducing the risk of chronic diseases such as obesity and its most frequent associated comorbidities such as diabetes¹⁰. Exercise is, therefore, an essential tool for schoolchildren to prevent the consequences of not this, but future pandemics. Therefore, the blending of medicine and Physical Education professionals should develop the ideal well-known as the health school: the perfect place to access a health training and mainly physical activity essential for the physical, social, and emotional growth of individuals.

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Authorship Contributions

JCI conceived the idea. AJA wrote the manuscript. JCI and JGP made critical revisions. All authors approved the final version of the manuscript.

Declaration of conflict of interest

The authors declare no conflict of interest.



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