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RESEARCH ARTICLE

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## STRATEGIES FOR PHYSICAL EDUCATION CLASSES IN THE CONTEXT OF COVID-19 PANDEMIC

Hudson Fabricius Peres Nunes<sup>1\*</sup>, Fernando de Freitas Rosa<sup>2</sup>, Cláudio Silvério da Silva<sup>3</sup>, Leonardo José Mataruna-Dos-Santos<sup>4</sup>, Ana Elisa Messetti Christofolletti<sup>5</sup>, Raiana Lidice Mor Fukushima<sup>6</sup>, Andreia Cristina Metzner<sup>7</sup> and Alexandre Janotta Drigo<sup>8</sup>

<sup>1</sup>Mestre pela Universidade Estadual Paulista, Rio Claro, São Paulo, Brasil. Professor de Educação Física do Instituto Federal de São Paulo, Votuporanga, São Paulo, Brasil. <sup>2</sup>Mestre em Ciências da Motricidade pela Universidade Estadual Paulista, Rio Claro, São Paulo, Brasil. Professor de Educação Física da Secretaria do Estado de São Paulo, Rio Claro, Brasil. <sup>3</sup>Doutor em Ciências da Motricidade pela Universidade Estadual Paulista, Rio Claro, São Paulo, Brasil. Professor de Educação Física da Prefeitura do município de Bauru, São Paulo, Brasil. <sup>4</sup>Professor da Canadian University of Dubai, Faculty of Management, Sport Management Department, Dubai, Arab Emirates e do Coventry University, Centre for Trust, Peace and Social Relations, United Kingdom. <sup>5</sup>Mestre em Ciências da Motricidade pela Universidade Estadual Paulista, Rio Claro, São Paulo, Brasil. <sup>6</sup>Doutora em Ciências da Motricidade pela Universidade Estadual Paulista, Rio Claro, São Paulo, Brasil. <sup>7</sup>Doutora em Ciências da Motricidade pela Universidade Estadual Paulista, Rio Claro, São Paulo, Brasil. Professora de Educação Física do Centro Universitário Unifafibe, Bebedouro, São Paulo, Brasil. <sup>8</sup>Doutor em Educação Física pela Universidade Estadual de Campinas, São Paulo, Brasil. Professor do Programa de Pós-Graduação em Ciências da Motricidade, Rio Claro, São Paulo, Brasil.

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#### \*Corresponding author:

Hudson Fabricius Peres Nunes

### ABSTRACT

The objective of this study was to propose recommendations and protocols that can prevent or minimize contagion by Covid-19 and provide security for educational establishments to operate. Qualitatively and descriptively, the proposal took into account three possible scenarios: social isolation; gradual adaptation to the resumption of on-site activities with the imminence of the virus; and post-Covid-19 educational reality. Considering that pharmacological treatment is still incipient, facing the virus requires collective awareness, as well as cooperative and supportive actions by the whole society.

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## INTRODUCTION

In times of pandemic, the Brazilian federal government has an approval rate of 27% among its citizens when it comes to its crisis management to deal with Covid-19 (DATAFOLHA, 2020). The president's priority speech in defense of economic sectors has

generated divergences about the actions to fight the virus announced by the Ministry of Health and resulted in the replacement of two ministers (CAMPOS, 2020). The lack of a national plan to fight the virus and the laws in force allow state and municipal governments to act autonomously. The absence of coordinated actions combined with political disharmony between government spheres divides public opinion, decreases compliance with social isolation and confuses the population. As a consequence, Brazil has the highest transmission rate

in the world and is on its way to become the epicenter of the virus (PRADO, 2020). Prior to the pandemic, the 2017 labor reform accelerated the deprivation of rights and highlighted the exploitation of relations between employer and employee (MOURA; BARROSO, 2017). Two years after labor rules were loosened, the rate of informal jobs increased, and so did the precarization of labor (SILVA, 2020). A pre-existing economic recession, unemployment and the rise of social inequalities exacerbate the problems of this human-sanitary crisis. Though misguided, in defense of the economy, arguments in favor of immunization by mass contamination have gained space. The bet is on the survival of the “strongest” and manifests a disregard for minorities considered to be unproductive such as: maroons, Indians, the elderly, people with disabilities, and others. The defense of scientific denialism is leaving people to their fate and, at the same time, labeling them as entitled or not entitled to living (CAMPOS, 2020). The current reasoning also stems from religious skepticism, political fanaticism and fake news nourished by their leaders, to the benefit of the latter’s own principles and personal interests (SILVA, 2020). However, what is behind the health rhetoric is economic defense. The eugenic ideology resurfaces in Jair Bolsonaro’s speeches and in a twisted biopolitical view of which bodies are important: those biologically vigorous, immune and responsible for the continuity of the economic sector. In the last century, the miscegenation of black and indigenous people was deemed unfeasible for economic, moral and physical growth. At the time, the nation’s whitening through European immigrants was part of the solution to the country’s intangible growth. Currently, the president’s narrative about the valuation of a strong national body echoes the eugenic concept that prevailed during the 1970 military dictatorship (BOSATTI, 2020).

This stance also shows sympathy for necropolitics (MBEMBE, 2018) and for social Darwinism by despising those people of no interest to the economy, classifying them as unproductive and non-consumers. In recent years, some nations have sought economic recovery by decreasing public spending. The logic of the austerity political agenda is to raise investor confidence. On the other hand, the by-products of neoliberalism can contribute to social anomie, to the devastation of fauna and flora, to the extinction of indigenous peoples, as well as to an increase in ethno-racial and gender-based violence (SANTOS, 2020). In Brazilian lands, the repeal of the 2012 forest code, coupled with the approval of decrees and provisional measures in 2019, contributed to the advances of the Ministry of Agriculture and Livestock, allowed by the reduction and demarcation of indigenous and maroon territories (SANTOS; THOMAZ JUNIOR, 2020). Another consequence was the disqualification and exclusion of strategic positions referring to the Brazilian Forest Service [*Serviço Florestal Brasileiro*] (SFB), the National Indian Foundation [*Fundação Nacional do Índio*] (FUNAI) and the Brazilian Institute of Environment and Renewable Natural Resources [*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais*] (IBAMA). The impacts include growing socio-environmental imbalances caused by the exploitation of natural resources and by forest destruction (ADAMS, et al., 2020). These populations lack essential health services and have suffered greatly with the degradation of natural richness, the impacts of colonization and disease transmission. In Covid-19 times, lack of information and difficulties in accessing preventive hygiene measures have caused twice the number of deaths in the indigenous population compared to the general population (CURTICE; CHOO, 2020). The highlighted problems can culminate in the disappearance of Indians.

The crises, poverty and marginalization that plague vulnerable populations represent other forms of social isolation. The fact is that, unfortunately, these adversities are considered invisible for the beginning of this century. The pandemic reinforced the coexistence of other global problems, such as injustice, discrimination, social exclusion and suffering (SANTOS, 2020). The pedagogy of the virus reveals that the issues are complex and related to the way that humans take care of their habitat. The conditions to which humanity has been subjecting the planet, exploiting it and taking from it all possible natural resources, are associated with commercial relations between

rich and poor countries and the logic of colonialism, patriarchy and capitalism (SANTOS, 2020). The virus also showed that the decision-making power of rulers or of the minority that owns the capital is shared with society. The current reality has left the state and the financial market terrified and, in response to the measures adopted by countries such as the United Kingdom, the USA and Brazil denote the reasoning that imposes an even more inhuman capitalism (HORTON, 2020). Mistaken or late political actions to fight the virus in countries that bet on the economic defense explain the high number of deaths in their territories. While some countries choose to walk painful ways, other nations, such as China, South Korea, Vietnam, Australia, Germany, Finland and Norway, have preferred to adopt strategies that seek to preserve lives through mass testing, social and physical distancing, tracking and isolation of people who have symptoms or have had contact with sick people. These measures aim to lessen the problems caused by the pandemic. However, the decrease in social and economic impact will primarily depend on the financial support adopted by each government for the benefit of its people (WHITE, 2020). Whatever the reality of each country and the measures taken to fight the pandemic, the educational sector is one of the areas that have received or will receive on-site activities later. From a cultural point of view, education is essential for training and human development. But how to prevent or minimize contagion by Covid-19 in educational establishments during the resumption of face-to-face classes? From this question, the objective of the study was to propose recommendations and protocols that can prevent or minimize contagion by Covid-19 and provide security for the educational establishments to operate. Therefore, with a view to contributing to one of the sectors with the greatest social relevance, it proposes recommendations for educational establishments, describing protocols that consider three possible scenarios: social isolation; gradual adaptation to the resumption of on-site activities with the imminence of the virus; and post-Covid-19 educational reality.

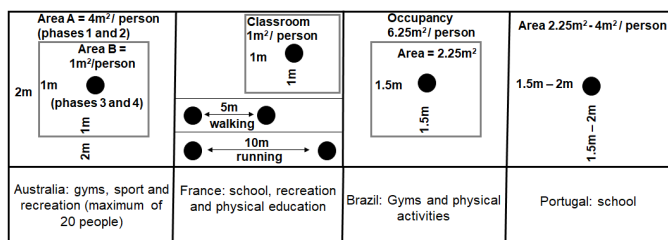
## METHODOLOGY

The investigation has a qualitative approach, is of the descriptive type and employs documental source (GIL, 2008; THOMAS; NELSON, 2002). In this case, the Scenario Analysis methodology, suggested by Mataruna-Dos-Santos, Khan and Al-Shibini (2018) have used in this paper to identify the relevant case; confront the driving forces; describe the frame and refine the scenario. In scenario 1 (Social Isolation), the importance of educational establishments staying connected with students has been a consensus for most countries, but there are many difficulties as to equity of access for this to materialize. In order to preserve this connection, the main actions include the provision of teaching material in printed form or through different technological means, bearing in mind the socio-cultural and economic reality of the public served. Another action is the establishment of assistance partnerships for the vulnerable population. Finally, the effort of teachers in mediating the teaching process, considering the conditions of both educators and students, has been essential to maintain this connection and the possible learning process.

This scenario also reveals the existence of a future educational gap between students with different socioeconomic standards. One result could be higher dropout rates. Other negative aspects deriving from domestic confinement are related to a dramatic increase in hunger, and psychological, physical and sexual violence (UN, 2020). In Scenario 2 (Gradual Adaptation to the Resumption of On-Site Activities with the Imminence of the Virus) - transition from scenario 1 to scenario 2 - will necessarily encompass discussions founded on scientific knowledge. It is important to stress that decision-making must prioritize the protection of life and the preservation of the fundamental rights of students and workers in the education field. The system that manages a certain education network should propose an initial planning. It is important that the plan describes actions of reception, emotional and psychological support, through social and health support networks. The plan must detail recommendations on safety and health protocols inside the establishments and in other

social spaces. From the planned guidelines, each educational establishment will present its own action plan, adapting it to its reality. Before students return, the training of education workers and outsourced agents must be a priority, and it is essential to understand “why and how to proceed” in different situations. Actions in this new scenario will require: considerable investments to train and hire human resources; building or adapting infrastructure; assessing the need for and purchasing protective equipment and cleaning materials; controlling and monitoring contagion risk in education establishments; ongoing training, information and communication on safety and health protocols. As a security protocol, recommendations comprehend: planning gradual return, with phased rotations between number of students, classes and education levels; signaling circulation circuits (entrance, internal transit, and exit), delimiting them with adhesive tapes on the floor or with other objects that can organize the flow and establish physical distance; maintaining physical distance in the school community inside classrooms and other educational spaces; rearranging schedules, mainly meal breaks; not mixing students from different classes; education workers mandatorily wearing masks (professional or handmade); encouraging students to wear masks (mask change must follow the instructions of manufacturers and health authorities as to the maximum time of use). As health protocols, recommendations include: training, informing and communicating the school community on compliance with the recommendations of the World Health Organization and internal bodies responsible for sanitary issues; providing liquid soap or hand sanitizer, in strategic places; adjusting hydration points, such as filters inside classrooms, or restricting the opening of hydraulic points to control and hygiene rules, with the same being valid for use of restrooms (toilets and showers); prohibiting exchange of teaching material, except in cases of disinfection before use; implementing internal protocols and supervising compliance with them, paying attention to strategies for the management and handling of suspected or confirmed cases of Covid-19 through procedures concerning control, monitoring and referral to health networks; giving preference to serving students in open places with natural ventilation; avoiding air conditioning; advising the school community not to share food; ensuring the correct sterilization of all meal utensils. Countries such as Germany, Belgium, Portugal and Spain have adopted as main protocols in educational establishments gradual return (between 10 to 15 students), physical distancing and mask wearing. After social isolation, physical distancing between people and mask wearing are evidenced as the main blockers of the spread of the virus. Figure 1 brings examples of physical distancing protocols adopted in different contexts and countries, such as Australia (FITNEES AUSTRALIA, 2020), France (FRANCE, 2020), Brazil (CREFA/SP, 2020) and Portugal (PORTUGAL, 2020).

**Physical distance recommendations**



Source: Western Australia ease of restrictions (Australia); Health protocol relating to schools and educational establishments (France); Academies Reopening Procedure (Brazil); Return to the Presence Regime (Portugal)

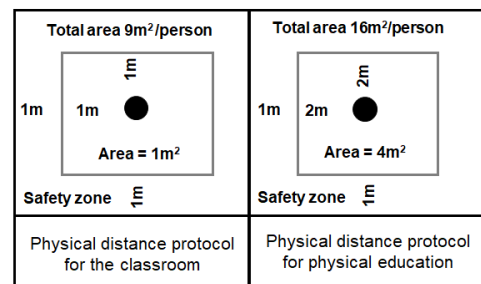
- Legend
- Person occupancy area
  - Student
  - Demarcation with adhesive tape or alternative teaching material

**Figure 1 a.**

In the school environment, recreational activities and Physical Education classes must be preferably carried out in open places, and physical activities must be of low to moderate intensity, lasting no more than 60 minutes. Physical contact must not be allowed. Exchanges of teaching and sports materials must be allowed only

after disinfection. In restricted places with a heavy flow of students and short intervals for the environment to be cleaned and sanitized, students are recommended to change their shoes or be assisted to disinfect the soles. Despite recommendations in different contexts and territories, safety zones or intersection zones between occupied areas have not yet been established to prevent people from being close to each other simultaneously. In order to fill this gap, the protocol presented in figure 2 and 3, based on Nunes *et al.* (2020), aims to standardize physical distancing and provide security for educational establishments to operate, considering the classrooms and places meant for Physical Education. For classrooms, a total area of 9 m<sup>2</sup>/student was considered, with 1 m<sup>2</sup> of occupied area, and a safety zone of 1 m linearly for each occupied area, in the vertical and horizontal directions. For practical Physical Education classes, an area of 16 m<sup>2</sup>/student was considered, with 4 m<sup>2</sup> of occupied area, and a safety zone of 1 m linearly for each occupied area, in the vertical and horizontal directions. The larger area occupied by students in practical Physical Education classes is justified by the space-time organization required for physical-bodily movements. By defining student occupancy per square meter, it becomes possible to count the number of students inside the classrooms and in the places intended for practical Physical Education classes.

**Recommendations for classrooms and physical education**

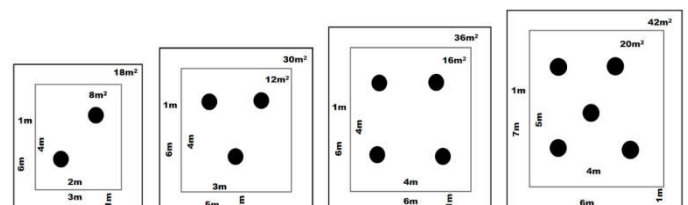


Source: Nunes *et al.* (2020)

- Legend
- Person safety zone: classroom of 9 m<sup>2</sup>/student; physical education 16 m<sup>2</sup>/student
  - Person occupancy area: classroom of 1 m<sup>2</sup>/student; physical education 4 m<sup>2</sup>/student
  - Student
  - Demarcation with adhesive tape or alternative teaching material

**Figure 2b.**

In favorable situations, considering a monitoring and control founded on epidemiological and scientific criteria, physical distance should be shortened gradually. Work in pairs or small groups can use hierarchical criteria such as: degree of kinship, living in the same house, living nearby, means of displacement, and affinity. New settings will enable the interaction and diversification of other physical-bodily movements among students. Another benefit is the awareness of self-care as an influencing element of collective care.



Source: Nunes *et al.* (2020)

**Figure 3 - c**

- Legend
- Group Safety Area
  - Personal occupancy area of 4 m<sup>2</sup>/student
  - Student
  - Demarcation with adhesive tape or alternative teaching material

Although Figures 2 and 3 are didactic-pedagogical, Physical Education teachers can adopt other distribution and proximity

strategies, considering the occupancy area and the safety zone per student recommended in the protocols, in future teaching proposals. A promising path for this movement is the collaborative work between peers and the academic community. The purpose of the proposal is to raise awareness about both individual and collective actions by means of cooperative and supportive procedures that will last, according to the experienced reality. The recommendations are guidelines, and the effectiveness of the protocols will depend on co-responsible actions. As a limitation, behavioral non-compliance by the school community can hinder the execution of the protocols. However, the latter can be used with new scientific findings. In education establishments, considered as “closed spaces”, control and monitoring actions that compose the health protocol can be effective, whereas in other social places, outside the school, referred to as “open spaces”, the guarantees are not the same. Therefore, collective awareness and individual actions are interdependent and imperative. In short, breaking the spread cycle of the virus is linked to cultural, educational and behavioral characteristics of an individual and of the people with whom they interact. In scenario 3 (Post-Covid-19 Educational Reality), the approval of vaccines or treatments based on scientifically effective drugs are being considered. Although the effort of science is centered on the evidence of the facts, one cannot deny that the pandemic will leave deep scars, and overcoming it will not be simple. However, what will the crises of various sorts and with different factors caused by the pandemic will represent in the education field? What lessons will this virus give us? We will have a transformed as well as transforming school? Will training and human development be priorities? Will Physical Education, sports, physical activities and bodily practices be equal?

**Further Considerations:** Although, the virus is a biological phenomenon, but its transmission speed is determined by cultural, educational and behavioral issues. What can we do to stop the spread? Are there any global alternatives that could change society? A very promising path is collective awareness. Behavioral change results in a change of habits, but this requires that each individual understands the importance of being educated and educating themselves for new social demands. Until scientifically effective drugs are discovered or vaccines are approved, the fight and the containment and protective actions against contamination by the virus will remain fragile without collective awareness. The political system and society need to understand that the solution demands cooperative effort. Decisions will lead to a new social state. Perpetuating the economic and political system founded on capitalism to maintain the “social order” and “save the economy” can bring about much deeper crises to society, not only a financial but also an ethical one, in which human lives are devalued and the planet is destructed (HORTON, 2020). As an alternative, the nation can reverse this logic and establish a relationship of trust with people and science. A global-reach phenomenon will need universal cooperation to be handled (HORTON, 2020). In this sense, cooperative actions are key to survival needs, but, in this period of isolation and loneliness, will we have time, mental health and an ability to reflect and act that can transcend egocentrism? Will we happen to see a more altruist and sustainable society that will propose a new humanity and save us from self-destruction?

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