

The importance of health education for the return to face-to-face classes of adolescents in COVID-19 pandemic times: a literature review

A importância da educação em saúde para o retorno das aulas presenciais de adolescentes em tempos de pandemia pela COVID-19: uma revisão de literatura

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ABSTRACT

Introduction: Health-related quality of life refers to the individuals' perception of the condition of their lives in the face of illness and the consequences and treatments related to it. As adolescence is a phase of identity construction, it can provide experiences that lead to risky behaviors. **Objective:** To highlight the importance of health education for the return to face-to-face classes of adolescents in COVID 19 pandemic times. This is an integrative literature review. The data search took place on Google Scholar using the descriptors: "Health at School", "School Health Program" and "School and COVID-19". **Method:** The inclusion criteria are primary studies, published from January 2019 to July 2022, only in Portuguese. **Results:** The studies analyzed aim, in general terms, to evaluate the role of reopening schools and preventive strategies to reduce the risks of community transmission of COVID 19 in the school environment. Public policies have the task of balancing the pros and cons of the strategy of reopening schools, considering the psychological, educational and social consequences for children and their families. **Conclusions:** We consider that the number of publications related to health education measures for the return of face-to-face classes is still insufficient. Thus, new research must be carried out to serve as a safe reference for the realization and maintenance of the return to face-to-face classes with effectiveness and safety.

KEYWORDS: COVID-19; Health Education; Health Policies

RESUMO

Introdução: A qualidade de vida relacionada à saúde refere-se à percepção do indivíduo sobre a condição de sua vida diante da enfermidade e as consequências e os tratamentos referentes a ela. A adolescência, por envolver uma fase de construção de identidade, pode proporcionar vivências que levam a comportamentos de risco. **Objetivo:** Destacar a importância da educação em saúde para o retorno das aulas presenciais de adolescentes em tempos de pandemia pela COVID-19. **Método:** Trata-se de uma revisão integrativa da literatura. A busca de dados aconteceu no Google Acadêmico utilizando os descritores: "Saúde na Escola", "Programa Saúde na Escola" e "Escola e COVID-19". Os critérios de inclusão são: estudos primários, publicados no período de janeiro de 2019 a julho de 2022, somente em português. **Resultados:** Os estudos analisados objetivam, em linhas gerais, avaliar o papel da reabertura das escolas e as estratégias preventivas para diminuir os riscos de transmissão comunitária da COVID-19 em ambiente escolar. As políticas públicas têm a tarefa de equilibrar os prós e os contras da estratégia de reabertura das escolas, levando em consideração as consequências psicológicas, educacionais e sociais para as crianças e suas famílias. **Conclusões:** Consideramos que o número de publicações relacionadas às medidas de educação em saúde para o retorno das aulas presenciais ainda é insuficiente. Assim, novas pesquisas devem ser realizadas para que sirvam como referencial seguro para a realização e manutenção do retorno das aulas presenciais com eficácia e segurança.

PALAVRAS-CHAVE: COVID-19; Educação em Saúde; Políticas em Saúde

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INTRODUCTION

Quality of life (QoL) is a multidimensional concept that includes different domains (physical, psychological, social and environmental), objective components (such as physical, economic and social conditions) and subjective components (for example: well-being and satisfaction with life). This concept refers to “the individual’s perception of their position in life, within the context of the culture and value systems in which they are inserted and in relation to their goals, expectations, standards and concerns”, in other words, it refers to the individual’s perception of their physical and psychological condition, social relationships and the environment/context in which they are inserted¹.

Cruz et al.² defined health-related quality of life (HRQoL) as an individual’s perception of their living conditions in the face of an illness, as well as the way in which the illness affects their living conditions.

Measuring this perception is very subjective because of the difficulty individuals have in relating their dysfunction to the multiple dimensions of life. These determinants of health and illness straddle the social and psychological fields, particularly during adolescence, when the individual experiences experiments and transformations in body and mind. As it involves a phase of identity construction, these experiences can lead to risky behaviors, shaping their attributes and attitudes in adulthood and old age. A deeper understanding of how adolescents perceive their lives allows for a greater understanding of their health³.

Adolescence is a stage of biopsychosocial changes, characterized by the adolescent’s own behaviors, questioning the rules and values that come from the family, distancing themselves from the family cycle, and getting closer to the groups of friends with whom they identify. It is during this time of discovery that adolescents seek to insert themselves into society and recognize themselves in the environment in which they live⁴.

In Brazil, there are approximately 45 million adolescents, many of whom have low social indicators, especially in the Northeast. The National Health Survey found that this is one of the age groups that least seeks health care, whether for prevention or recovery. Added to this is the fact that adolescents aged between 15 and 19 have a number of risk behaviors, such as involvement in external causes, drug abuse, and risky sexual behavior⁵.

In this context, the use of health services is the result of an interaction between the individual’s behavior in looking for a service and the professional who provides it. Studies in Brazil and around the world have investigated the demand for and use of health services, but most of them only analyze the association with individual variables such as gender, income, education, and race/color^{3,4,5}.

In 2007, the School Health Program (PSE) was established by presidential decree with a focus on carrying out prevention, promotion, and health care activities in the school environment

throughout the country. These actions should be carried out by professionals from the Family Health Strategy through multi-professional work with teachers and pedagogical coordinators from public schools in the primary education network⁶.

Health Education (HE) is a field with multiple perceptions and understandings about its objectives, the teaching and learning processes involved and the concept of health itself: there are different understandings demarcated by different political and philosophical positions on man and society. In this sense, it is possible to consider SE as a field of interdisciplinary studies and practices, in which the areas of health and education stand out, and especially, in the educational context, science education (SE)⁷.

The COVID-19 pandemic has revealed a different dimension in which SE requires different strategies to achieve its goal, including personal beliefs and worldview, which are widely influenced by historical, cultural and social factors and are important in determining individuals’ choices⁸. Thus, primary care health professionals have the important role of promoting SE programs and activities, especially in times of the COVID-19 pandemic, thus aiming to improve the QoL of individuals and families, and these actions must be integrated into care. The SE activities must be planned and directed at the target audience, articulated by a multi-professional team and carried out permanently, considering what the subjects need and want to know in order to promote health⁹.

Understanding that COVID-19 is an emerging infectious disease, the adoption of preventive measures is the best option for controlling the spread of the virus. Therefore, in order to contain the transmission of SARS-CoV-2, borders have been closed and various recommendations have been established, such as social distancing, guidelines on frequent hand washing and the use of alcohol gel, more rigorous cleaning and disinfection of surfaces, and the mandatory use of masks in public environments¹⁰.

Therefore, considering that social distancing is fundamental to controlling the proliferation of the pandemic, schools, as well as other sectors of society, were closed, and students began to attend classes through emergency remote teaching. Most sectors are already returning to full operation but the return to face-to-face classes has still been controversial for both governments and students’ parents, since many schools do not have the structural conditions to maintain a safe environment for students and staff¹¹.

Thus, this review aims to highlight the importance of SE for the return of face-to-face classes for adolescents in times of the COVID-19 pandemic.

METHOD

This is an integrative literature review (ILR) based on the method devised by Santos et al.¹², with adaptations. The purpose of an



ILR is to synthesize results obtained from research on a topic or issue in a systematic, orderly, and comprehensive way. It is called integrative because it provides broader information on a subject/problem, thus constituting a body of knowledge. In this way, the reviewer/researcher can draw up an integrative review for different purposes, and it can be aimed at defining concepts, reviewing theories or methodological analysis of the studies included on a particular topic¹³.

In preparing this review, the following steps were followed: selecting the guiding question; establishing the criteria for selecting the sample and searching the literature; defining the information to be extracted from the selected studies; evaluating the studies included in the review; interpreting the results; and presenting the review.

The PICO (population, intervention, comparison, and *outcomes*) *strategy* was used to develop the research problem. In this sense, this integrative review aims to answer: what is the importance of SE for the return of face-to-face classes for adolescents in times of the COVID-19 pandemic?

Data was searched on Google Scholar using the following descriptors and/or keywords: “School Health”, “School Health Program” and “School and COVID-19”. The inclusion criteria were: primary studies, published between January 2019 and July 2022, in Portuguese only. Book chapters, doctoral theses, master’s dissertations, and technical reports were excluded.

To extract the data, a data collection form designed for this purpose by the authors of the study was used, which contained: information on the authors and year of publication of the study; database and journals; place of publication and language; objectives, methodology, results, and conclusions of the studies. The data was grouped by similarity and organized into thematic categories.

RESULTS AND DISCUSSION

The data collection was carried out between May 1st and 31, 2022 and obtained 13 scientific publications on Google Scholar, according to the descriptors and/or keywords and inclusion and exclusion criteria defined previously. After reading the titles, two articles were excluded because they were duplicated in the databases. Of the remaining 11, two more were excluded after reading the abstracts. As a result, nine were selected for full reading. After this stage, three more were excluded because they did not meet the proposed inclusion criteria. We would stress that the studies were selected because of their more recent characteristics, which allowed us to carry out a more in-depth analysis of the subject in question, as well as a better correlation of the concepts that this work aims to present, characterize, and compare. However, it is important to note the scarcity of studies on the concept discussed in this study. The flowchart of the article selection strategy is shown in Chart 1.

The selected studies broadly sought to assess the role of reopening schools and the preventive strategies in place in schools in

terms of overall risk for children and community transmission. Policymakers have the task of balancing the pros and cons of the school reopening strategy, taking into account the psychological, educational and social consequences for children and their families. Another issue to be considered is the socio-economic disparities and inequalities that could be amplified by closing the school, such as: maintaining social distancing, reorganizing classes into smaller ones, providing adequate sanitation of spaces, furniture, and toys, promptly identifying cases in the school environment and tracking them down. Descriptions of the general characteristics of the studies can be found in Chart 2.

It was noticed that most of the studies were published in 2020. All the studies focused on subjective concepts in the field of education, without criteria for investigating data from children aged 0 to 19, children who could have been infected with SARS-CoV-2, and who attended schools/daycare centers presenting measures to contain the transmission of SARS-CoV-2 after the gradual reopening of these establishments throughout the year 2022. There was no uniformity regarding the journals. Chart 3 presents the qualitative synthesis of the studies included in this ILR.

The data in Table 3 indicates that the return to face-to-face school could mitigate social, health and educational vulnerabilities, while critics say that such a decision would contribute to the spread of the virus. The resumption of face-to-face school activities in the midst of the COVID-19 pandemic is controversial. In addition, the *lockdown* and school closure may have had negative consequences for children, affecting their social life, education, and mental health. Accordingly, some of the results obtained have shown through clinical evidence that children mainly have the disease in its asymptomatic or mild form and it has been suggested that they are also less likely to spread the virus, a fact that highlights the possibility of returning to school.

As a result, public and private basic education schools, in compliance with the Ministry of Education (MEC), suspended their activities. However, Ordinance No. 343, published on March 17, 2020, in the Federal Official Gazette, now allows face-to-face

Chart 1. Flowchart of the search strategy carried out on Google Scholar.

Identification	Records identified by searching the databases (n = 13)	
Selection	Records after removing duplicates (n = 11)	
	Selected records (reading titles and abstracts) (n = 9)	Deleted records (n = 2)
Eligibility	Records identified by searching the databases (n = 6)	Full-text articles excluded (n = 3)
Inclusion	Studies included in the review (n = 6)	

Source: Prepared by the authors, 2022.



Chart 2. General characteristics of the studies included in the integrative literature review.

Code	Author (Year)	Title	Journal	Language
1	Vieira et al. (2020)	The physical education teacher's perspective on classes in the context of the COVID-19 pandemic	<i>Revista Eletrônica Nacional de Educação Física</i>	Portuguese
2	Soares, Schoen (2020)	COVID-19 back-to-school prevention measures: protocols from 13 countries	<i>Fundação de Amparo à Pesquisa do Estado de São Paulo (Fapesp)</i>	Portuguese
3	Santos, Queiroz (2021)	Education in the pandemic scenario: what basic education teachers say about the return to face-to-face classes	Intellèctus	Portuguese
4	Fernandez, Souza (2021)	Crisis in basic education due to the health crisis: problematizing the implications of the pandemic for teaching	<i>Revista Discente Planície Científica, Campos dos Goytacazes - RJ</i>	Portuguese
5	Dias et al. (2020)	Returning to face-to-face classes in the educational system of the state of Pará-Brazil: obstacles and challenges during the COVID-19 (SARS-CoV-2) epidemic	<i>Brazilian Journal of Development</i>	Portuguese
6	Rastusnia, Silva (2022)	"God bless our Brazil" - recommendations for children's return to classroom lessons: the crossing from biopolitics to necropolitics	<i>Educação</i>	Portuguese

Source: Prepared by the authors, 2022.

Chart 3. Summary of the articles included in this study.

Code	Objective	Methodology	Results/Conclusion
1	Analyze the perspective of school physical education teachers for classes during and after the COVID-19 pandemic	Quantitative and qualitative field research using a questionnaire on the Google Form® online platform, which was divided into three parts: profile, screening, and investigation.	A profile of the 131 participants was drawn up, as well as their concerns about the didactics covered in the classes as practical activities, with a focus on health, discussing political aspects, and the use of technologies and the possibility of remote classes in basic education becoming viable and the problems expected by educators once school activities were re-established. Teachers should use all the skills covered in physical education classes, so that when they first return to the school routine, these skills are seen as important tools in their lesson plans, seeking to enrich the content and preserve the health of their students.
2	Review the biosafety measures adopted by other countries for students aged 10 to 19 (adolescence) returning to school	Review	Protocols for reopening educational institutions in 13 countries were analyzed. Provisions were identified regarding who can attend school, personal hygiene and school cleanliness, the use of masks and social distancing. The reopening of schools must take into account the epidemiological situation of each region and the infrastructure conditions of each institution.
3	Analyze the effects of the pandemic on teaching work	Qualitative research that used content analysis to treat the data collected in the 69 questionnaires applied to basic education teachers, reflecting on remote teaching, teachers' mental health and the return to face-to-face classes.	The results point to the difficulties of teaching and the urgent need for effective preventive measures to ensure a safe return to school activities.
4	Raising questions about the situations of students and teachers in remote education, in the context of the pandemic of the new coronavirus, called SARS-CoV-2	Review	It has become clear that the pandemic is not only a general health crisis, but also an aggravation of the educational crisis, which highlights a crisis of citizenship.
5	Investigate and alert the population and education management bodies in the state of Pará to the effects of the COVID-19 pandemic.	Review	Faced with the problems arising from the pandemic, compliance with educational standards and guidelines is extremely affected. Each locality must indicate the best way to achieve and implement compliance with school targets for each educational cycle present in their region. School activities are where the greatest number of individuals are concentrated, locally, and so there is a danger of the virus proliferating to a gigantic extent. This monitoring of education could give us a new direction in education this year.
6	Discuss the COVID-19 pandemic's impact on public schools that serve children.	Review	Text of indignation exercises. The text maps the distortions, inventions and misinterpretations of data, strategies to produce post-truth, presented by the MEC, SEED/PR and Seduc/AM, countering these discourses with data from the immediate return attempt to hide the situation of emergency remote education, as well as the lack of planning and investment in the recommended sanitary conditions.

Source: Prepared by the authors, 2022.

MEC: Ministry of Education; SEED/PR: Paraná State Department of Education; Seduc/AM: Amazonas State Department of Education.



classes to be replaced by remote classes during the pandemic period. In addition, on April 1, 2020, Provisional Measure No. 934 was published, suspending the obligation for schools and universities to reach 200 school days and maintaining compliance only with the minimum workload. This suspension would be valid for the school year affected by the pandemic¹⁴.

Given this context, study 3 stated that the return of face-to-face classes and the curriculum demands made by schools and teachers should reach at least the amount of content provided for in traditional teaching. Due to the pandemic, remote teaching has been inserted into this new reality, affecting the quality and quantity of the 800-hour workload planned for the elementary school year. Study 1 pointed out that teachers needed to reflect on the strategies used in the teaching process and adapt them to each reality, since this would be an essential way to mitigate the impacts left by the COVID-19 crisis. This reorganization of the school calendar should use didactics with a focus on pedagogical actions that would allow learning to be recovered, in other words, looking for strategies that would reduce the deficits caused and increased by the time when activities were paralyzed.

Study 2 complements the idea that laboratory and cultural activities within schools would also be important during the pandemic and post-pandemic period, as they should be seen as training for HE in a shared culture of safety, in which students would be sensitized to promote, on their own, rearranging and cleaning their work/study place on their own, sharing the idea of responsibility for hygiene in the classroom with teachers, students, and other education staff, which is in line with the cross-cutting citizenship themes proposed by Brazilian education, such as ethics, health, and the environment.

Educational systems are based on the idea of recognition in which education is best delivered by teachers to students in the classroom or in different school spaces, according to study 2. Based on the study, the planning and implementation of preventive measures were necessary to reduce the spread and contain COVID-19, which proved essential for the return of face-to-face classes. Face-to-face educational activities should help the student community both in terms of educational content and sociability, as well as helping to reduce mental health problems or domestic violence.

Study 5 mentions that the World Health Organization (WHO) recommends classrooms with a maximum of ten students, dividing the class into three parts and rotating the pairs. However, if the classroom is relatively large and meets the condition of maintaining a distance of 1.5 meters between students, this scale could be optimized, assuming that half of the class of 30 students would have classes on even days and the other half on odd days, thus favoring teaching but taking all the necessary precautions. In a school that only worked one shift and had relatively large classrooms, the routine could be improved by dividing half the class into mornings and the other half into afternoons, thus respecting the individual commitments of the students in this division.

The way students and staff enter and move around the school also encourages social distancing. Study 2 shows that this measure can be a challenge for Brazilian schools with classes of more than 40 students, especially in secondary schools. In this case, in order to maintain small groups, the adoption of rotation by day/class is necessary. This option can compromise school attendance, affecting both content and minimizing the problems arising from school closures. However, the adoption of small permanent groups allows only the group to be suspended in the event of an outbreak, without the need to close the entire school.

Study 2 completes the idea that implementing the preventive measures needed to reduce the spread of COVID-19 is essential well before the return to school, so that schools have time to make the necessary changes. In Brazil, states and municipalities have a certain amount of autonomy in drawing up COVID-19 containment and prevention protocols for the return to school, emphasizing the recommendations of health agencies and the epidemiological situation of each location, and the decision on how the protocol will be followed and implemented in practice can be left to the discretion of school principals.

However, health authorities have warned that health planning will have to be meticulously articulated and careful considering the return to school, as schools will possibly be back in operation in a very worrying environment in relation to the pandemic. Thus, there is a consensus that, for the return to school, social distancing actions and the maintenance of hygiene procedures will be essential if there is not to be an uncontrolled growth in those infected by the virus, as discussed in study 1.

Study 4 brought up the issue of the increase in cases of abuse during social isolation, which is a factor to be taken into account, as it involves students and teachers. In times of crisis and war, violence against women tends to increase, and this is what happens in this pandemic context. To exemplify what has been said above, we bring you some data: it was recorded in April 2020⁴, at the beginning of the pandemic, that reports of violence against women, received by channel 180 of the Ministry of Women, Family and Human Rights (MMFDH), rose by 37.6% nationwide; between March and April 2020, cases of femicide increased by 22% in 12 Brazilian states, according to the Brazilian Public Security Forum. During quarantine, the victim has much more proximity to the aggressor and much less contact with trusted friends and family, which can discourage them from seeking help. In addition, the United Nations Children's Fund (UNICEF) draws attention to cases of neglect, violence, exploitation, and sexual abuse against children and adolescents, which have increased due to the quarantine, as the family stress caused by the isolation context can result in aggression against children and adolescents⁴.

Considering the developmental stage of adolescence discussed in study 2, there is often a perception of personal invulnerability that ends up reinforcing the adoption of risky behaviors, which, at the time of the pandemic/post-pandemic, can appear in disrespect for sanitary and preventive measures. It is essential that each person takes responsibility for following the guidelines



of the local health authorities and school rules. Another difficulty that adolescents may face is the supervision suggested to ensure that hygiene rules are correctly implemented. In a period of developing autonomy, it may seem like a step backwards for some to have to be supervised by adults or to have to go straight home from school and not walk with their peer group. It's important that decisions are discussed with students in this age group, so that there is better adherence and they don't feel that their rights have been diminished.

Bringing up the issue of the mental health of teachers and other school staff in study 3, there is a concern about the mental health of teachers in the face of the scenario of confrontations and uncertainties and the lack of sufficient support for teaching work to continue at the same quality. The authors of the study observed the presence or intensification of symptoms related to anxiety, depression, anguish, and generalized sadness.

During the pandemic, containment measures and government actions to reduce the spread of the virus have had both positive and negative effects, causing a polarization of political ideas. Since one of the many aims of school education is to enable individuals to participate critically in society, says study 1.

As a result, study 6 states that school is one of the main places where opinions are formed during childhood and adolescence, the aim of which should no longer be human formation but human production and the composition of competencies, skills, and characteristics demanded by the job market. It allies itself with institutions and instances that appropriate discourses and knowledge, which generate a narrative anchored in statistical and economic data analyzed in a distorted and biased way (the post-truth) and which produce a reality that aims to make people believe that everything is fine: the denial of the effectiveness of sanitary measures such as the use of masks and social distancing, the encouragement of the use of drugs that are not effective in the treatment of COVID-19, the delay in the purchase of vaccines and the delay in the immunization of the entire population, the propagation of a false scenario favorable to the return of face-to-face classes that exposes children to death. The chances of dying follow specific groups who are more exposed to the virus and whose lives matter less.

In view of study 1, the school is a political space, and this discussion is of paramount importance in the student's full development in society. With this in mind, it is important that the political bias is present in schools, so that it can serve as a subsidy in broadening the vision of teachers and the school community about their role as agents transforming reality and with social responsibility. To make them understand their importance in building their present with a view to the future and thus provide meaning even in the importance of being at school, preventing them from feeling lost. Politics in the school environment should be used with the aim of listening to expectations, concerns, their real searches, needs and difficulties.

Study 3 raises the issue of basic structural conditions for the return to face-to-face classes: 100% of teachers said that schools

were not prepared for the return to face-to-face classes. Among the justifications given were: the lack of structure to adapt to this "new reality", including technological equipment, hygiene materials and their continuous replacement, as well as the periodic cleaning of spaces; the lack of basic sanitation and even water; and the lack of attention to professionals with comorbidities, some of whom reported becoming psychologically ill as they worried about returning.

This is a warning that public education systems have not been adequately prepared to receive students and teachers and that a return in inappropriate conditions could be an incubator for new cases of COVID-19. The return to school is a new scenario of uncertainty and fear, as the structure that equipped private schools is not the same as that awaiting public school professionals.

We also must deal with the return to face-to-face classes, ordered by the state. It's understandable that the population is frustrated with the activities as they are now: there are exhausted students; some don't have the means to participate in *online* academic activities. In this format, parents and guardians see themselves as compulsory mediators of content and learning, without prior preparation. This whole situation puts pressure on political representatives who, in turn, manage from afar, unaware of the singularities of the current moment, acting out of a desire to prioritize their momentary reputation over the object of their office. Teachers in a face-to-face environment are more susceptible to communicable diseases through direct or indirect contact, due to the number of students in a classroom, increasing the chances of contamination. An epidemic within a pandemic, organized by aware and negligent institutional bodies is, in short, more than genocide, says study 4.

According to study 5, classes in the state of Pará will probably take place with the arrival of a vaccine, but we don't have that possibility yet, possibly at the end of the year if all the breeding protocols go well and work correctly. Considering Provisional Measure No. 934, which establishes exceptional rules on the school year in basic education resulting from the measures to deal with the public health emergency referred to in Law No. 13,979, of February 6, 2020, it is extremely complex to return to face-to-face activities at this time of pandemic, even considering the current structure of schools. The models we have successes and failures, and the biggest problem is that, in the case of the latter, lives will have been lost.

Basic education workers are being vaccinated, but they said that vaccinating the school community cannot be a condition for reopening schools. On the Vacinometer website, consulted on July 21, 2021, the graph "Doses applied of vaccine against COVID-19, according to priority groups" shows that 843,119 basic education workers were vaccinated with the first dose and 110,462 with the second or single dose. News published on the MEC website in January (2022) shows that 2.2 million teachers and 161,183 principals work in Brazil's 179,553 basic education schools, meaning that not even half of these professionals



have been vaccinated. If the vaccine, combined with sanitary measures, is the way to contain contamination, none of these conditions are guaranteed. The government is thus exposing the school community to the risk of becoming infected, of falling ill and, because they are not fully immunized, of developing more aggressive forms of the virus, according to the study 6.

Study 5 concludes that we already have examples of the resumption of teaching that have not worked in Brazil, perhaps because activities were resumed too early, at a time when the pandemic was only increasing in cases day by day and there was no sign of improvement in hospital care. The fact is that starting any school activity at a time when indicators show an increase in the number of cases, deaths and a growing collapse in hospitals is totally inadvisable, as mass contamination in certain places would only increase demand and worsen hospital care. At a time when we are seeing a decrease in the number of cases and a relative slack in hospital care systems, in some of the countries already mentioned, measures have been taken to return to school in a very careful and staggered manner, observing all possible recommendations.

CONCLUSIONS

From the analysis of the data, it is clear that there is a need for careful consideration of the implications of school closure policies on adolescents' health. Adolescents have an active social life at school, which helps them learn from their peers and has a positive impact on the development of personality traits and a sense of identity. As such, social isolation has caused problems of broken relationships with peers, but also an association with depression, guilt and anger in students. In addition, children and adolescents in isolation and quarantine have shown an increased risk of developing post-traumatic stress disorder, anxiety, bereavement, and adjustment disorder. In some cases, forced cohabitation in a domestic environment, with parents suffering from economic and mental health problems, exposes these individuals to the risk of

experiencing violent behavior. With this in mind, the potential benefits of dismissing students from schools to contain the spread of infection may be outweighed by the negative consequences of keeping them at home.

Thus, a question arises regarding the conditions necessary to maintain face-to-face classes in the COVID-19 pandemic in a safe manner. Safe measures for the reopening of schools could include the creation of small fixed groups of children, in order to balance the need to go to school and the need to maintain social distancing, taking into account the spaces available and potentially considering the implementation of differentiated shifts to attend schools. Avoiding sharing materials and relocating rooms and common areas, along with ensuring frequent access to hand washing, can also represent successful strategies that can be modulated according to the organizational capacity of each institution. Measures such as ventilating rooms and sanitizing environments are fundamental. In addition, children can benefit greatly from spending time outdoors.

Teachers and school staff should be additionally trained to identify the first signs of mental health problems related to quarantine and isolation. As far as the surveillance system is concerned, it should consist of adequate information/education of teachers and parents, immediate identification of cases in the school environment, skills testing.

In particular, the decision on when and whether or not to reopen schools was left to the municipalities based on the number of COVID-19 cases in the area. The guidelines for reopening schools were released by the Ministry of Health. The measures included range from daily temperature checks to maintaining physical distance and wearing face masks.

In short, it can be concluded that in Brazil there is still no information on the safety and effectiveness of reopening schools. Thus, school reopening strategies should be guided by a flexible approach to adapt to the local context in terms of epidemiological data and system capacities, and the balance between pros and cons for adolescents should be taken into account.

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Authors' Contribution

Coutinho LC, Soares LOL- Conception, planning (study design), acquisition, analysis, data interpretation, and writing of the work. Quines CB - Conception and planning (study design). All the authors approved the final version of the work.

Conflict of Interest

The authors inform that there is no potential conflict of interest with peers and institutions, political or financial, in this study.



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