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COVID-19 social consequences in pediatrics. Is eHealth a solution?

Consecuencias sociales de la pandemia de COVID-19 en pediatría. ¿Es la eSalud la solución?

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COVID-19 SOCIAL CONSEQUENCES IN PEDIATRICS. IS EHEALTH A SOLUTION?

More than two years after its outbreak, the coronavirus disease 2019 (COVID-19) is still a global threat which is affecting the citizens of all over the World. But these citizens are not only adults. Children are defenseless not only against the COVID-19, but against the measures imposed by the adults. Only in the first months of 2020, more than 150 million children in 165 countries were affected by school closures (Xiang, Zhang & Kuwahara, 2020) which, for some authors, have been unfortunate (Phelps & Sperry, 2020). The main problem for the children may have not been the COVID-19, but the protective measures imposed by their adults.

Social distancing removed millions of children from school and from other contact with peers (Hatoun et al., 2020). The children have been greatly impacted by the school closures, the remote learning, and the removal of peer-to-peer interactive play. An increased use of electronic devices and a decreased physical and social activity has been described these two years (Brooks et al., 2021). School closures and the lack of outdoor activity have promoted distress, impatience, and neuropsychiatric manifestations (Ghosh et al., 2020); social isolation and psychological distress (Patrick et al., 2020); detrimental social consequences (Van Lancker & Parolin, 2020); and they have increased the risk of developing mood and anxiety disorders in children (Phelps & Sperry, 2020). These aspects have generated a substantial impact on both parents and children (Patrick et al., 2020).

Schools have placed a great emphasis on ensuring students continue to receive academic instruction. However, there have been fewer discussions on how to support children who rely on schools for behavioral and mental health supports (Phelps & Sperry, 2020). Most institutions were caught off guard by this pandemic (Phelps & Sperry, 2020), and almost nobody has considered the essential rights of the children, like their need of social and physical peer-to-peer contact.

With school closures, there is a considerable risk for educational losses and exacerbated educational disparities among children were generated. Extended school closures can lead to lower test scores and lower educational attainment. During closures, students need access to technology, a learning environment at home, and parents with time and skills that can support their learning. Therefore, those families in poverty are at greater disadvantage and at increased risk for widening educational disparities (Masonbrink & Hurley, 2020).

The role that children played in COVID-19 disease transmission was unclear (Ludvigsson, 2020), and scientific debate is ongoing regarding the effectiveness of school closures on virus transmission (Van Lancker & Parolin, 2020). Although children are not at the highest risk for COVID-19 severe illness, school closures will have unintended consequences (Wong et al., 2020). Children are then being hit by the most important psychosocial aspect of this pandemic (Ghosh et al., 2020). Children are not the main drivers of the pandemic (Ludvigsson, 2020), but their lifestyle and behaviors have been deeply impacted (Xiang et al., 2020), when

measures that have harmed their social needs have been applied. The social distancing policies will have long-term impacts (Ye, 2020).

Although lockdown and mandatory quarantine measures have played crucial roles in the decrease of the number of COVID-19 cases, concerns arise over the threat that these measures pose to the mental health of vulnerable groups (Yang et al., 2021). Children are among these vulnerable groups, as their nervous systems, endocrine systems, and hypothalamic-pituitary-adrenal axes are not well developed. Psychological and social crises cause children to produce feelings of abandonment, despair, incapacity, and exhaustion (Ye, 2020). Physical inactivity also originated that children's rate of unhealthy weight gain increased notably during the COVID-19 pandemic, most prominently in children already vulnerable to unhealthy weight gain, with a clear repercussion in their social life (Brooks et al., 2021).

Following the lockdown and the school closures, parents of children felt that they were left alone in caring for their kids. Thus, the families have reinvented their own space and time organization, finding ways to deal with their own needs and those of their children (Provenzi, Grumi & Borgatti, 2020). However, children must be engaged with and guided into the future. Protective measures may be necessary to save adult lives, but they have failed to help the social needs of the children (Green, 2020). A shift in focus is needed to avoid an irreversible scarring of a generation (Green, 2020).

For some authors, innovative digital solutions and tools are needed more than ever to mitigate the negative consequences on children (Ye, 2020). The question is, are they the solution?

The emerging eHealth services such as eHealth, social media, mobile health, and remote interactive online education supposedly can bridge the social distance and the behavioral health for children (Ye, 2020). Telehealth or eHealth, defined generally as providing electronic health care at distance, is not new (Camden & Silva, 2021). There is no consensus around the definition of telehealth, but it refers to activities related to health care, provided at distance, and involving either health care providers or patients (Camden & Silva, 2021).

Prior to the COVID-19 pandemic, the percentage of clinicians using telehealth was low (Camden & Silva, 2021). Now, physical distances can be easily bridged by using telecommunication devices such as personal computers, smartphones, and tablets (Provenzi et al., 2020). Social media is also an effective tool to promote behaviors, and health literacy is essential for promotion of individual health (Li & Liu, 2020). Organizations also play a key role in the successful role out of telehealth, as they provide the software and hardware, infrastructure, guidelines, professional development opportunities and resources, both for therapists and for the families (Camden & Silva, 2021).

Low-tech options are a surprisingly effective form of eHealth. Using text messaging between team members during is as an efficient way to communicate. Technology facilitates teamwork, as therapists can share documents and media in the cloud. Teams from specialist centers and primary centers can easily connect, whilst geographical barriers between teams and between teams and families can be almost eliminated. Some traditional techniques transfer well to eHealth (Camden & Silva, 2021).

Future research on children's health should pay more attention to novel solutions that incorporate interactive technologies and digital approaches. Human-computer interactions, augmented reality, and virtual reality could be incorporated to remote psychological supporting service for children's health (Ye, 2020). However, and prior to developing a successful eHealth intervention, it is important that the stakeholders' capacity to adapt to eHealth is explored (Nickbakht et al., 2020). Successful implementation of virtual healthcare also depends on patients' perceptions and satisfaction (Thirunavukkarasu et al., 2021).

With the growth of Internet technologies, offering digital interventions for children and families may address barriers to accessing services (Burrows et al., 2015). But there are also numerous potential barriers to delivering health through digital technologies (Camden & Silva, 2021). The developers and the authorities must also make targeted action plans to circumvent the disadvantages perceived by the patients accessing eHealth solutions (Thirunavukkarasu et al., 2021), and that is not an easy task. It is very difficult, or almost

impossible, to provide the physical peer-to-peer interactions using eHealth or any digital technologies. Even more, the most important question arises: Can eHealth interventions help those children whose schools have been closed?

eHealth can be a support when it is unavoidable to isolate a child, for any cause, to supply medical, social, and mental support. eHealth can help parents, teachers, healthcare providers, and even children. But, only for these tasks, it will require a high amount of collaborative work between families, therapists, and researchers to better understand families' preferences and needs. eHealth facilitates the delivery of the right information and support at the right time, but it cannot supply in-person interactions, which are undoubtedly needed. With younger children where interaction at distance might be complex, coaching approaches involving collaboration with families and or individuals in the child's environment were thought to work best. For other interventions that involve more physical interactions, eHealth could just provide value. Determining how telehealth is best integrated into service delivery model is an opportunity, and to consider when hands-on therapy is necessary and when a hands-off coaching approach can offer advantages (Camden & Silva, 2021).

Therefore, eHealth can be a good support to minimize the consequences of the school closures during the COVID-19 pandemic, or any isolation than a child may need. But eHealth cannot give the children all what they get, when they physically attend their schools: learning, playing and physical-social interactions. In just two words, social health. Therefore, our children need less school closures. Perhaps, they need stakeholders who consider their needs, when taking decisions. Children are small, even noisy, but they are persons, and they have rights. And, most important, children do not have to pay the price of our mistakes.

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