

A SYSTEMATIC REVIEW ON EFFECT OF COVID ON CHILDREN

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Abstract

After the 2019 pandemic Coronavirus (COVID-19), caused by Extreme Acute RESS 2 coronavirus syndrome was identified (SARS-CoV-2), our ways of managing ourselves socially and on a regular basis have changed unprecedentedly. The sudden isolation from education, social life and recreational sports has had great impacts on children and teenagers. In certain cases, domestic abuse has also increased. Due to heightened anxiety, changes in their diet and school dynamics, fear or even lack of a component of the issue^{1,2}, stress has a direct effect on their mental health. Our purpose is to address the need to supervise and treat persons in various areas and to alert public health and government agents. We hope that effective and prompt action will minimise harm to your mental health as a result of the side effects of this pandemic.

Keywords: COVID 19, CHILDREN, PANDEMIC

BACKGROUND

With over 33 million cases, and over 1 million deaths as of 30 September 2020, global impacts were reached through the Coronavirus Epidemic (COVID-19). The most widely used strategies include home quarantines and National Schools closures, which are to delay the spread of the virus. There were 339 local cases and 75 imported cases at the end of this data collection in Shanghai, China, by 23 March 2020. On 24 January 2020, Shanghai initiated its COVID-19³⁻⁶ emergency response at the highest level, and the level 1 emergency response until 23 March 2020 was operational. Shanghai closed all public venues and cancelled all big public gatherings during the level 1 emergency response and forced people from affected areas to stay at home or to be quarantined for 14 journeys in groups. Due to the closing of

schools, all 1,435 million primary and secondary students in Shanghai have been provided with online learning⁷⁻¹⁰.

The UNESCO reported on 26 March 2020 that 87 per cent of global students (i.e. more than 1.5 million children and youth in 165 countries) have been affected by school closures by reducing their access to schooling. Schools have been closed in 165 countries. In addition, school closing can trigger disturbances in physical exercise, social contact and mental wellbeing of children and teenagers, as well as the likely disparities created by the automated splitting and distance learning methods¹¹⁻¹⁴.

COVID IMPACT ON CHILDREN

It is stated in the literature that older people are more likely to experience COVID-19 and more at risk of serious illness and mortality in patients with severe comorbidities such as diabetes, hypertension or obesity. Whilst children apparently are at lower risk for the serious type of the disease, they may develop multisystemic inflammatory disease as well as less hospital and mechanical ventilation. Recently, reports have pointed to the emergence and picture of Kawasaki syndrome¹⁵⁻¹⁷ in certain children and teens infected by the recently identified coronavirus. This rare condition is a vasculitis caused by the hyperinflammatory state, first described in Japan (1967).

While young people seem to be less vulnerable to COVID-19, there could be catastrophic side effects of the pandemic. Children and adolescents will be strongly vulnerable to biopsychosocial pressures from the pandemic, which may theoretically be affected as a result of social exclusion and unseasoned capabilities to conceive and comprehend the short-term and long-term effects of this epidemic until society confines efforts to minimise the spread of virus is needed⁹⁻¹³.

The latest literature states that the pandemic COVID-19 impacts all ages, although it varies in adult children. There were 731 laboratory certified samples and 1,412 confirmed COVID 19 cases among the children between the ages of 2 and 13 years in a national sequence of 2143 patients with COVID-19 that had been reported to the Chinese Centre for Disease Control and Prevention from January 16 through February 8 2020. In these, 90 were asymptomatic or had moderate to mild symptoms¹⁸⁻²⁰.

While COVID-19 is less frequent in children or may present moderate symptoms, it has an elevated risk for adults with a compromised immune system as a result of chronic illness like

cancer to suffer as a result of the virus's debilitating effects (China). A research released in April 2020 confirmed that in some paediatric hospitals in Iran nine children between 2 and 10 years were contaminated with COVID-19, including three children with leukaemia and lymphoma. A analysis carried out in Italy showed that teens and young adults with cancer aged 15-21 had greater chances than their stable counterparts for COVID-19 infection²¹⁻²³.

Cancer is a complex illness, life-threatening, with a variety of life facets and vulnerability to numerous health and psycho-social problems, especially in children and their families. It raises the risk of various infectious diseases, like COVID-19, for patients, in particular due to the immune suppressing effects of cancer and its associated therapies. There are thus particular health challenges that can emerge from children that are in touch with COVID-19 while having cancer. Parents with children with cancer have been excessively anxious about the future effects of cancer and the COVID-19 pandemic. Darlington's research in the UK has indicated that the psychological, social and economic pressure of children with cancer has been boosted by COVID-19. In contrast with their stable counterparts, parents claim their children are in greater risk of infection²⁴⁻²⁶.

DISCUSSION

Different steps have been taken by the governments of each nation affected as a result of the COVID-19 pandemic. Such initiatives generally suggest limits on citizen movement and have had a profound influence on normal events and schedules. Becoming one of the most vulnerable groups in the population during the time of lock-up has been the product of school closures and the tight limits on moving past home. We therefore aimed to research risk behaviour for health among alienated children at pre-school and school age. We have compiled papers from MEDLINE, PsycInfo, Scopus and Web of Science to describe known comportations related to the wellbeing of children in relation to social insulation and children's²⁷⁻³¹ social neglect without advance warning (i.e. television exposure, environmental effects, physical and exercise activity, sedentary behaviour, sleeping patterns, dietary habits, psychological reaction, body makeup and injuries). This analysis reveals the possible habits linked to wellbeing in comparison to literature and reflects on potential sequences of social insulation in the near and long term. The two big issues, especially among the children with socio-economic disadvantage, are socio-affective complications and

inadequate physical activity. Efficient parental or group instruction may resolve the two problems.

REFERENCES

1. de Figueiredo CS, Sandre PC, Portugal LCL, et al. COVID-19 pandemic impact on children and adolescents' mental health: Biological, environmental, and social factors. *Prog Neuro-Psychopharmacology Biol Psychiatry*. 2021;106. doi:10.1016/j.pnpbp.2020.110171
2. Mirlashari J, Ebrahimpour F, Salisu WJ. War on two fronts: Experience of children with cancer and their family during COVID-19 pandemic in Iran. *J Pediatr Nurs*. 2021;57:25-31. doi:10.1016/j.pedn.2020.10.024
3. Madaan P, Singanamalla B, Saini L. Neurological Manifestations of COVID-19 in Children: Time to Be More Vigilant. *Pediatr Neurol*. 2021;115:28. doi:10.1016/j.pediatrneurol.2020.11.006
4. Baccarella A, Linder A, Spencer R, et al. Increased Intracranial Pressure in the Setting of Multisystem Inflammatory Syndrome in Children, Associated With COVID-19. *Pediatr Neurol*. 2021;115:48-49. doi:10.1016/j.pediatrneurol.2020.11.008
5. López-Bueno R, López-Sánchez GF, Casajús JA, Calatayud J, Tully MA, Smith L. Potential health-related behaviors for pre-school and school-aged children during COVID-19 lockdown: A narrative review. *Prev Med (Baltim)*. 2021;143. doi:10.1016/j.ypmed.2020.106349
6. van Gorp M, Maurice-Stam H, Teunissen LC, et al. No increase in psychosocial stress of Dutch children with cancer and their caregivers during the first months of the COVID-19 pandemic. *Pediatr Blood Cancer*. 2021;68(2). doi:10.1002/pbc.28827
7. Yarali N, Akcabelen YM, Unal Y, Parlakay AN. Hematological parameters and peripheral blood morphologic abnormalities in children with COVID-19. *Pediatr Blood Cancer*. 2021;68(2). doi:10.1002/pbc.28596
8. Liu Q, Zhou Y, Xie X, et al. The prevalence of behavioral problems among school-aged children in home quarantine during the COVID-19 pandemic in china. *J Affect Disord*. 2021;279. doi:10.1016/j.jad.2020.10.008
9. Shahbazi M, Shahbazi F. COVID-19 and children with special healthcare needs:

- Recommendations for helping parents and caregivers of young children. *Arch Pediatr Infect Dis.* 2021;9(1):1-3. doi:10.5812/pedinfect.107357
10. Kim MG, Stein AA, Overby P, et al. Fatal Cerebral Edema in a Child With COVID-19. *Pediatr Neurol.* 2021;114:77-78. doi:10.1016/j.pediatrneurol.2020.10.005
 11. Iqbal SA, Tayyab N. COVID-19 and children: The mental and physical reverberations of the pandemic. *Child Care Health Dev.* 2021;47(1):136-139. doi:10.1111/cch.12822
 12. Battistin T, Mercuriali E, Zanardo V, et al. Distance support and online intervention to blind and visually impaired children during the pandemic COVID-19. *Res Dev Disabil.* 2021;108. doi:10.1016/j.ridd.2020.103816
 13. Limbers CA. Factors Associated with Caregiver Preferences for Children's Return to School during the COVID-19 Pandemic. *J Sch Health.* 2021;91(1):3-8. doi:10.1111/josh.12971
 14. Provenzi L, Grumi S, Gardani A, et al. Italian parents welcomed a telehealth family-centred rehabilitation programme for children with disability during COVID-19 lockdown. *Acta Paediatr Int J Paediatr.* 2021;110(1):194-196. doi:10.1111/apa.15636
 15. Horiuchi S, Shinohara R, Otawa S, et al. Caregivers' mental distress and child health during the COVID-19 outbreak in Japan. *PLoS One.* 2020;15(12 December). doi:10.1371/journal.pone.0243702
 16. Isumi A, Doi S, Yamaoka Y, Takahashi K, Fujiwara T. Do suicide rates in children and adolescents change during school closure in Japan? The acute effect of the first wave of COVID-19 pandemic on child and adolescent mental health. *Child Abuse Negl.* 2020;110. doi:10.1016/j.chiabu.2020.104680
 17. Honda C, Yoshioka-Maeda K, Iwasaki-Motegi R. Child abuse and neglect prevention by public health nurses during the COVID-19 pandemic in Japan [日本新冠肺炎疫情期间公共卫生护士的儿童虐待和疏忽预防]. *J Adv Nurs.* 2020;76(11):2792-2793. doi:10.1111/jan.14526
 18. Sama BK, Kaur P, Thind PS, Verma MK, Kaur M, Singh DD. Implications of COVID-19-induced nationwide lockdown on children's behaviour in Punjab, India. *Child Care Health Dev.* 2021;47(1):128-135. doi:10.1111/cch.12816

19. Baptista AS, Prado IM, Perazzo MF, et al. Can children's oral hygiene and sleep routines be compromised during the COVID-19 pandemic? *Int J Paediatr Dent.* 2021;31(1):12-19. doi:10.1111/ipd.12732
20. Camden C, Silva M. Pediatric Telehealth: Opportunities Created by the COVID-19 and Suggestions to Sustain Its Use to Support Families of Children with Disabilities. *Phys Occup Ther Pediatr.* 2021;41(1):1-17. doi:10.1080/01942638.2020.1825032
21. Chen H, Li H, Qiu Y, et al. A flowchart strategy for children with leukemia during COVID-19: A nondesignated hospital's experience. *Pediatr Blood Cancer.* 2021;68(1). doi:10.1002/pbc.28563
22. Lecuelle F, Leslie W, Huguelet S, Franco P, Putois B. Did the COVID-19 lockdown really have no impact on young children's sleep? *J Clin Sleep Med.* 2020;16(12):2121. doi:10.5664/jcsm.8806
23. Swedo E, Idaikkadar N, Leemis R, et al. Trends in U.S. Emergency Department Visits Related to Suspected or Confirmed Child Abuse and Neglect Among Children and Adolescents Aged <18 Years Before and During the COVID-19 Pandemic - United States, January 2019-September 2020. *MMWR Morb Mortal Wkly Rep.* 2020;69(49):1841-1847. doi:10.15585/mmwr.mm6949a1
24. La Pergola E, Sgrò A, Rebosio F, et al. Appendicitis in Children in a Large Italian COVID-19 Pandemic Area. *Front Pediatr.* 2020;8. doi:10.3389/fped.2020.600320
25. Predieri B, Leo F, Candia F, et al. Glycemic Control Improvement in Italian Children and Adolescents With Type 1 Diabetes Followed Through Telemedicine During Lockdown Due to the COVID-19 Pandemic. *Front Endocrinol (Lausanne).* 2020;11. doi:10.3389/fendo.2020.595735
26. Mehta NS, Mytton OT, Mullins EWS, et al. SARS-CoV-2 (COVID-19): What Do We Know About Children? A Systematic Review. *Clin Infect Dis.* 2020;71(9):2469-2479. doi:10.1093/cid/ciaa556
27. Schmidt SCE, Anedda B, Burchartz A, et al. Physical activity and screen time of children and adolescents before and during the COVID-19 lockdown in Germany: a natural experiment. *Sci Rep.* 2020;10(1). doi:10.1038/s41598-020-78438-4
28. Place R, Lee J, Howell J. Rate of Pediatric Appendiceal Perforation at a Children's

Hospital During the COVID-19 Pandemic Compared With the Previous Year. *JAMA Netw open*. 2020;3(12):e2027948. doi:10.1001/jamanetworkopen.2020.27948

29. Montag C, Elhai JD. Discussing digital technology overuse in children and adolescents during the COVID-19 pandemic and beyond: On the importance of considering Affective Neuroscience Theory. *Addict Behav Reports*. 2020;12. doi:10.1016/j.abrep.2020.100313
30. Cruz AT, Shaman J, Dayan PS. The Challenge of Clearly Counting COVID-19 Cases in Children. *Pediatrics*. 2020;146(6). doi:10.1542/peds.2020-031682
31. Sokol RL, Grummon AH. COVID-19 and Parent Intention to Vaccinate Their Children Against Influenza. *Pediatrics*. 2020;146(6). doi:10.1542/peds.2020-022871