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Letter to the Editor

The Complex Trauma Spectrum During the COVID-19 Pandemic: A Threat for Children and Adolescents' Physical and Mental Health



Dear editor,

The National Child Traumatic Stress Network and different studies defined complex trauma as exposure to multiple interpersonal traumatic events, over a prolonged period of time, and with the potential for major long-term developmental impacts on victims, both physical and mental (Briere and Scott, 2015; Felitti et al., 1998; The National Child Traumatic Stress Network, 2020). These multiple traumas include neglect child sexual, physical and psychological abuse, experiences of war, and torture (Courtois, 2004). This article explores the risk of complex trauma victimization among children and adolescents during the COVID-19 pandemic and proposes actions to reduce the threats, identify victims and provide care.

Concerns about the COVID-19 pandemic, anxiety and fear of contracting the virus, public health instructions, and measures for confinement and social and physical distancing may be traumatic events (Pappa et al., 2020). More importantly, they are also likely to increase the risk of multiple traumatic experiences and complex trauma among children and adolescents (Collin-Vézina et al., 2020; Guessoum et al., 2020). In April 2020, schools were closed in 188 countries. As of June 5, 2020, school closures still affect 134 countries and more than 1.7 billion students around the world (UNESCO, 2020). Although staying home can be beneficial for a group of children, many of them are at greater risk of experiencing multiple traumas such as physical, sexual and psychological violence, physical and emotional neglect, exposure to inter-parental violence, social isolation, household stressors and difficulties (e.g., alcoholism, drug addiction, and mental illness of a parent), as well as increased social and financial precarity (Cénat et al., 2020). Two recent surveys have shown that more than 20% of all-aged children and more than 40% of children under 12 in the United States experienced food insecurity since the beginning of the COVID-19 pandemic (Bauer, 2020). With weak social security and the loss of hundreds of millions of jobs around the world, the pandemic has exacerbated the precariousness of already vulnerable populations and puts millions of families, children, and adolescents at greater risk of experiencing various forms of interpersonal trauma.

Research has shown that complex trauma impacts both physical and mental health of victims (Briere and Scott, 2015). From a mental health perspective, fears that family members or oneself may be infected, social isolation, significant changes caused by the COVID-19 pandemic, the death of grand-parents and other family members, parental job loss and multiple interpersonal traumas to which millions of youth are exposed are likely to have both immediate and long-term impacts. In the short to medium term, these children may experience symptoms of

anxiety, depression, PTSD, dissociation, depersonalization, emotional dysregulation, etc. In the long term, these traumas can cause physical, social and intellectual development problems, violent and risky behaviours (self-harm, unsafe sexual practices, etc.), alcohol and drug use, and altered relationships with others that may put youth at greater risk of experiencing violence in romantic relationships. In terms of physical health, complex trauma is associated with somatization symptoms among youth, with complaints of chronic stomachaches and headaches. In long-term, complex trauma is associated with impacts on the brain and nervous system, a weakened immune system, risks of high blood pressure, diabetes, cardiovascular problems, cancer, and premature death (The National Child Traumatic Stress Network, 2020).

Multiple actions can be taken to (1) reduce the risk of youth experiencing complex trauma during the pandemic, (2) ensure that those who have been victims are identified, and (3) provide care. Social services must first become aware of the potential threats and vulnerabilities that youth are facing. This awareness is the first step towards acting and directing their efforts toward solutions. Next, clear plans of action to reduce experiences of interpersonal trauma must be developed and implemented by social services. These plans must include both prevention (including family awareness campaigns) and intervention components. Social services should also improve reporting measures used by children and non-abusive parents. Text, chat, and even messaging services on social media (WhatsApp, Facebook, Twitter, Instagram, etc.) should be developed and encouraged, because during confinement, it will not always be easy for a youth to make a call. Social services must also take action to visit children and adolescents already at risk, including those who have experienced maltreatment and/or neglect, are living with parents who have already had problems with alcohol and drug use, etc. Also, prompt action must be taken to relocate youth who have experienced proven violence or any form of sexual abuse (privileging family placements), unless a way can be found to relocate the abusive and/or complicit parents. At the end of the pandemic, governments should also consider setting up psychological first aid programs in schools by training all teachers to be attentive, caring, able to identify those requiring further assessment, and active listeners to the needs of children and adolescents on their subjective experiences of the confinement and social isolation measures related to the COVID-19 pandemic. Training given to teachers could also include elements of psychoeducation and emotional regulation to help them reassure students and prevent some of the potential impacts of complex traumas. In low- and middle-income countries where children and adolescents are particularly at risk of being victims of multiple traumas (Cénat, 2020; Cénat et al., 2018), civil society, NGOs and UNICEF should pay a special

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attention to their situation and force governments to act.

At the end of the pandemic, it will be important to document challenges and multiple traumas experienced by youth, their associated risk and protective factors, and consequences. While we were not prepared for the COVID-19 pandemic, these studies should allow us to be ready for the next time. As COVID-19 is already associated with a range of multiple traumas, acting to reduce the risk of complex trauma among children and adolescents is an important public health issue that needs to be addressed. The proposed measures should help prevent millions of children and adolescents from facing physical and mental health problems not related to the pandemic itself, but because they have experienced the spectrum of complex trauma.

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References

Bauer, L., 2020. The COVID-19 crisis has already left too many children hungry in

America [WWW Document]. Brookings URL. <https://www.brookings.edu/blog/up-front/2020/05/06/the-covid-19-crisis-has-already-left-too-many-children-hungry-in-america/> (accessed 5.15.20).

- Briere, J., Scott, C., 2015. Complex Trauma in Adolescents and Adults: Effects and Treatment. *Psychiatr. Clin. North Am.* 38, 427–515. <https://doi.org/10.1016/j.psc.2015.05.004>.
- Cénat, J.M., 2020. The vulnerability of low-and middle-income countries facing the COVID-19 pandemic: The case of Haiti. *Travel Med. Infect. Dis.*, 101684. <https://doi.org/10.1016/j.tmaid.2020.101684>.
- Cénat, J.M., Dalexis, R.D., Kokou-Kpolou, C.K., Mukunzi, J.N., Rousseau, C., 2020. Social inequalities and collateral damages of the COVID-19 pandemic: when basic needs challenge mental health care. *Int. J. Public Health* 2020. <https://doi.org/10.1007/s00038-020-01426-y>.
- Cénat, J.M., Derivois, D., Hébert, M., Amédée, L.M.L.M.L.M., Karray, A., 2018. Multiple traumas and resilience among street children in Haiti: Psychopathology of survival. *Child Abus. Negl.* 79, 85–97. <https://doi.org/10.1016/j.chiabu.2018.01.024>.
- Collin-Vézina, D., Brend, D., Beeman, I., 2020. When it counts the most: Trauma-informed care and the COVID-19 global pandemic. *Dev. Child Welf.*, 251610322094253. <https://doi.org/10.1177/2516103220942530>.
- Courtois, C.A., 2004. Complex Trauma, Complex Reaction: Assessment and Treatment. *Psychother. Theory. Res. Pract. Train.* 41, 412–425. <https://doi.org/10.1037/0033-3204.41.4.412>.
- Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., Koss, M.P., Marks, J.S., Perma-Nente, K., 1998. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med.*
- Guessoum, S.B., Lachal, J., Radjack, R., Carretier, E., Minassian, S., Benoit, L., Moro, M.R., 2020. Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown. *Psychiatry Res.* <https://doi.org/10.1016/j.psychres.2020.113264>.
- Pappa, S., Ntella, V., Giannakas, T., Giannakoulis, V.G., Papoutsis, E., Katsaounou, P., 2020. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Brain. Behav. Immun.* <https://doi.org/10.1016/j.bbi.2020.05.026>.
- The National Child Traumatic Stress Network, 2020. Complex Trauma [WWW Document]. Natl. Child Trauma. Stress Netw URL. <https://www.nctsn.org/what-is-child-trauma/trauma-types/complex-trauma> (accessed 6.5.20).
- UNESCO, 2020. School closures caused by Coronavirus (Covid-19) [WWW Document]. UNESCO URL. <https://en.unesco.org/covid19/educationresponse> (accessed 6.5.20).

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