

LETTER TO THE EDITOR

Health support to pediatric cancer survivors and their families during the COVID-19 pandemic

To the Editor:

The emerging coronavirus disease 2019 (COVID-19) pandemic is posing tremendous threats and formidable challenges to the global community. Pediatric cancer survivors are not spared from the pandemic. In addition to dealing with a wide array of sequelae of the cancer and related treatments, which includes fatigue,¹ weakened immune system,² a reduced functional capacity,³ and psychological problems,⁴ pediatric cancer survivors who are immunocompromised now face an increased susceptibility to COVID-19 infection. This results in an immense level of additional pressure in their families during the pandemic. To reduce the risk of their immunocompromised children being exposed to and infected with COVID-19, parents would prefer that their children remain confined at home and avoid participating in any outdoor activities during the pandemic. The home confinement, combined with the lack of physical education resulting from school closures, has led to a dramatic decline in the physical activity levels of pediatric cancer survivors. Physical inactivity is associated with a wide range of adverse health outcomes. Moreover, staying indoors for long periods of time might have a devastating impact on the psychological well-being of survivors and might make them more prone to developing psychiatric disorders, such as depression and anxiety. Regular physical activity has been shown to exert protective effects by improving cardiorespiratory fitness, reducing fatigue, promoting psychological well-being, and most importantly strengthening the immune system.^{5,6}

Given this issue, we have continuously offered health support to pediatric cancer survivors and their families using information communication technologies during the pandemic. Instant messages have been delivered regularly via WhatsApp and WeChat to the parents of pediatric cancer survivors. These messages provide information and guidance regarding the importance of regular physical activity. We have introduced a wide variety of home-based exercises intended to improve survivors' overall fitness, including stretching exercises, home-based circuit training, and exercise games. Other messages have given advice on reducing their child's sedentary behaviors, particularly leisure-time screen-based activities (eg, television and video use) and smartphone usage.

To ease the additional worries experienced by pediatric cancer survivors and their families during this unprecedented crisis and enhance their coping abilities, helpful tips on how to maintain personal, home, and environmental hygiene have been delivered to them. These messages have continually provided information about general hygiene

measures, including proper hand hygiene, proper mask usage, the use of bleach to maintain a hygienic environment at home, the observation of good food hygiene, and the adoption of a healthy lifestyle. Using information communication technologies, such as WhatsApp and WeChat applications, via mobile devices for health promotion is highly recommended for healthcare professionals. Such strategy was found to be flexible, feasible, and easy to implement. Most importantly, it allows healthcare professionals to deliver continuous professional advices and personalized support to people with cancer and their families during the pandemic.

The far-reaching impacts of COVID-19 pandemic have disrupted lives around the world and have led to intense physical and psychological sufferings. Coordinated efforts are required to promote the physical and psychological well-being of vulnerable populations, including pediatric cancer survivors and their families, during the pandemic and the enormous uncertainties of the future.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

Ankie Tan Cheung¹
William Ho Cheung Li¹ 
Laurie Long Kwan Ho¹
Godfrey Chi Fung Chan² 
Joyce Oi Kwan Chung³

¹ School of Nursing, The University of Hong Kong, Pokfulam, Hong Kong

² Department of Adolescent Medicine, Queen Mary Hospital, Pokfulam, Hong Kong

³ School of Nursing, The Hong Kong Polytechnic University, Kowloon, Hong Kong

Correspondence

William Ho Cheung Li, School of Nursing, The University of Hong Kong, 4/F, William M W Mong Block, 21 Sassoon Rd, Pokfulam, Hong Kong.
Email: william3@hku.hk

ORCID

William Ho Cheung Li  <https://orcid.org/0000-0002-2562-769X>

Godfrey Chi Fung Chan  <https://orcid.org/0000-0001-6543-7551>

REFERENCES

1. Jóhannsdóttir IM, Hjermstad MJ, Moum T, et al. Increased prevalence of chronic fatigue among survivors of childhood cancers: a population-based study. *Pediatr Blood Cancer*. 2012;58:415-420.
2. Perkins JL, Chen Y, Harris A, et al. Infections among long-term survivors of childhood and adolescent cancer: a report from the Childhood Cancer Survivor Study. *Cancer*. 2014;120:2514-2521.
3. Suh E, Stratton KL, Leisenring WM, et al. Late mortality and chronic health conditions in long-term survivors of adolescent and early young adult cancers: a retrospective cohort analysis from the Childhood Cancer Survivor Study. *Lancet Oncol*. 2020;21:421-435.
4. Brinkman TM, Recklitis CJ, Michel G, Grootenhuis MA, Klosky JL. Psychological symptoms, social outcomes, socioeconomic attainment, and health behaviors among survivors of childhood cancer: current state of the literature. *J Clin Oncol*. 2018;36(21):2190-2197.
5. Slater ME, Ross JA, Kelly AS, et al. Physical activity and cardiovascular risk factors in childhood cancer survivors. *Pediatr Blood Cancer*. 2016;62:305-310.
6. Wurz A, Brunet J. The effects of physical activity on health and quality of life in adolescent cancer survivors: a systematic review. *JMIR Cancer*. 2016;2:e6.