

Beyond survival: Addressing gaps in psychosocial support for survivors of childhood cancer

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I read with great interest the study conducted by Fong et al. published in this issue of *Annals*, which evaluated psychological symptoms and health-related quality of life (HRQOL) among a cohort of 143 young adult survivors of childhood cancer in Singapore.¹ Almost 1 in 4 survivors demonstrated significant psychological distress and poor mental well-being (relative to population norms) at more than 15 years post-cancer diagnosis. Other than being the first in Singapore to characterise the psychological burden experienced by survivors, the notable strengths of this study are (1) the inclusion of siblings as comparators to minimise the potential confounding effects of genetics, family environment and socioeconomic factors on the study outcomes; (2) the use of validated self-reported measures that enable cross-comparison with studies from other countries; and (3) the use of International Classification of Diseases, Ninth Edition diagnosis codes to capture clinical chronic conditions and late effects of cancer. The authors conclude their paper by calling for regular surveillance and timely interventions to improve mental health functioning and HRQOL in cancer survivorship programmes in Singapore. Taken together, this study contributes to the existing literature that highlights the unique needs that survivors of childhood cancer face as they advance to young adulthood, which include the need for ongoing psychosocial support, transition from child-centred to adult-oriented health-care systems, and age-appropriate education on their personal health risks.

There have been vast improvements in the survival rates of children with cancer due to advancements in diagnosis, treatment and supportive care. However, survivorship comes at the cost of developing a myriad of late effects and developmental challenges.² As a child enters young adulthood, managing the cancer survivorship experience and making important early-life transitions may be complex, with physical and psychosocial implications. Fong et al. aptly highlight the importance of routine screening of psychological distress and psychosocial challenges in long-term

survivors.¹ However, a recent systematic review on mental health screening in childhood cancer survivors found that only 2 of the 30 included studies were conducted in Asian countries (China and South Korea).³ The scarcity of published studies on this topic in Asian countries and the lack of representation of Southeast Asian groups suggest that mental health and psychosocial problems are an under-addressed topic in paediatric cancer survivorship research in the region.

Although it was unclear how mood affected by the COVID-19 pandemic was measured in the study, the authors found that this variable was significantly associated with psychological symptoms in survivors. Studies have shown how the restriction of social activities and changes in lifestyle behaviors associated with the pandemic—such as physical activity and eating habits—led to increased mental health problems in young survivors of cancer.⁴ Particularly intriguing is the large proportion of overweight/obese survivors (42.0%) in the Singapore sample who were predominantly leukemia and lymphoma survivors, and therefore generally not expected to be at risk of obesity and endocrine-related late effects, unlike brain tumour survivors. This proportion seems to be descriptively higher than the overweight/obese survivors (23.3%) observed in a cohort of young adult survivors of childhood cancer in Hong Kong (mean age 24.4 years; SD 6.5 years).⁵ It can be inferred from the Singapore data, as well as collective evidence from the literature, that the lack of physical activity, increased screen time, and changes in sleep habits during the pandemic may have contributed to “poorer mood” in cancer survivors. Evaluating the impact of lifestyle on survivors’ mental functioning may facilitate the development of behavioral interventions. This is especially relevant in the context of Singapore, as well as other developed cities in the region, where much emphasis is now placed on ameliorating the adverse health effects of the urban environment such as sleep disturbances, a sedentary lifestyle and academic stress among children and adolescents.

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Despite its several methodological strengths, a notable limitation of this study is the absence of a measure to assess the impact of psychological distress on survivors' life functioning outcomes. "Functional status" refers to an individual's perceived level of ability and capacity to engage in meaningful activities.⁶ It is an important outcome in patients living with chronic illnesses, particularly young adult survivors of childhood cancer. To illustrate, we found that long-term survivors of childhood cancer in Hong Kong generally reported good leisure and social functioning with their peers but reduced functioning in meeting demands at work/school and at home.⁵ Characterising functional outcomes trajectories in survivors during the cancer care continuum will help identify high-risk groups and the appropriate window to implement supportive interventions. Such a data- and algorithm-driven approach may guide the allocation of resources to individuals in greatest need, and the tailoring of services based on individual requirements.

Similar to published studies in some populations,⁷⁻⁹ the authors did not identify differences in psychological outcomes between survivors and sibling controls. As Fong et al. employed US reference norms and not Singapore reference norms for the assessments, we are unable to determine if cancer survivors and siblings both adjusted well (or did not adjust well) psychologically after cessation of treatment. However, studies in the literature have highlighted the adverse impact of cancer diagnosis on the child's family, especially siblings, who are often regarded as "the forgotten group".¹⁰ This is especially important as Asian cultures often emphasise strong family bonds and interdependence. Future research should investigate the longitudinal changes in psychosocial outcomes among parents and siblings, as well as the impact of the child's cancer diagnosis on family dynamics and family functioning. Such findings would guide the development of family-targeted interventions and support programmes in Singapore.

Finally, the findings of Fong et al. highlight the value of routine monitoring of patient-reported outcomes (PROs) in young cancer survivors to facilitate the early detection of psychological symptoms and timely interventions before they develop into clinical mental health conditions.¹¹ In particular, the time is ripe to establish and implement a PROs data collection system, related multidisciplinary services and referral pathways, as cancer survivorship has moved to the forefront of the healthcare agenda in Singapore in recent years,¹² with successful case studies and examples of care models implemented in adult cancer

populations.^{13,14} Similar efforts to develop integrated and coordinated care for long-term childhood cancer survivors are anticipated. Emphasis should be placed on the formal transition of care from paediatric to adult-focused survivorship services that will meet the unique medical, developmental and psychosocial challenges of young adult survivors. Although there is currently no guidance on the best transitional care model, the national resource centre on health care transition in US (Got Transition) has identified 6 core elements to improve organisational healthcare transition practices,¹⁵ which include developing transition care policies and guides (Core Element 1), tracking progress using a registry (Core Element 2), conducting regular transition readiness assessments (Core Element 3), developing transition plan with medical summary (Core Element 4), facilitating the actual transition to adult-oriented care (Core Element 5) and confirming transfer completion (Core Element 6). A comprehensive and holistic approach to improve health and functional status in these young survivors will translate into a substantial positive impact on society.

Declaration

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