

Psychosocial interventions to improve wellbeing in TYA post-treatment survivors of childhood cancer: a systematic review

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Background

Psychosocial interventions are increasingly used in cancer aftercare. However, little is known about the feasibility and efficacy of these interventions, particularly for childhood cancer survivors who are now teenagers and young adults (TYA).

The psychosocial impact of childhood cancer in TYA can be vast. Once in remission, individuals and their families can be left 'in limbo'. Fears of recurrence and social difficulties when reintegrating into 'normal life' can impact wellbeing. Many experience interrupted development which impacts cognitive and social outcomes. Therefore, tailored psychosocial care and interventions must be offered to respond in a flexible manner to the needs of individuals at this life stage.

Furthermore, TYA face unique challenges when navigating healthcare systems aimed at either children or adults (James Lind Alliance, 2018). As such, the psychological support needs of survivors of childhood cancer has been named as a James Lind Alliance top 10 priority.

Aims

- 1 What types of psychosocial interventions exist for TYA survivors of childhood cancer?
- 2 Is there a type of psychosocial intervention that provides higher efficacy in improving survivors' mental wellbeing?
- 3 Do psychosocial interventions positively influence the wellbeing and psychological health of TYA survivors' and are there any possible negative impacts or 'adverse events'?



Search strategy

We searched CINAHL, MEDLINE, Cochrane Library, PsycINFO, PROSPERO and PsycARTICLES databases using the following search terms:

Child* OR adolesc* OR teenage* OR young adult*
AND
Cancer* OR neoplasm OR survivor* OR oncolog* OR medical oncolog*
AND
Interven* OR educa* OR psychosocial* OR behav* OR mental health OR wellbeing OR group therapy OR support groups OR skills training OR CBT OR psychotherapy OR family therapy OR counselling

Discussion

The synthesis of the included studies provides a comprehensive overview of the diverse available psychosocial interventions aiming to improve psychosocial well-being of TYA cancer survivors. The above interventions are reported to show benefits in specific areas, but outcome selection bias, replicability and scalability were frequently very challenging to assess. Multifaceted approaches considering the individual needs of TYA cancer survivors are crucial for optimising intervention efficacy. It is necessary to establish guidelines for professionals to integrate comprehensive survivorship psychosocial care plans alongside medical interventions to provide holistic support at all stages.

Methodological Considerations: The included studies share some common methodological limitations. An issue across several studies was small sample size. This highlights the need for interventions to be tested with larger, more diverse samples to ensure findings are robust and clinically meaningful. Bias, in terms of participant selection and the methods used, was evident in several studies and challenging to assess. Lastly, high dropout rates were a recurring challenge, although statistical methods were used to account for these.

Limitations: The heterogeneity in outcome measures and intervention types poses many challenges in drawing definitive conclusions. Because of this variability and clinical diversity in participants, interventions and outcomes, the true effect and the impact of the interventions are difficult to fully interpret. Future research should strive to use standardised outcome measures and consistent sample sizes, compared by diagnosis and age of cancer experience, to enhance comparability and allow for meta-analyses. Additionally, follow-up studies are needed to assess the sustainability of intervention effects long-term.

Implications for Policy and Practice: Various interventions demonstrated positive influences on different aspects of well-being among TYA childhood cancer survivors. Prosocial interventions, physical activity, and technology-based psychosocial education programmes exhibited the most consistent positive effects across multiple domains.

Conclusion: This systematic review highlights the potential of varied psychosocial interventions in positively impacting the mental well-being of TYA childhood cancer survivors. This contributes valuable insights to the ongoing efforts to enhance the QoL and psychological health of this population



References

Methodology

A protocol was produced and registered prospectively on PROSPERO (CRD42023422933) in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Page et al., 2021).



11,952 articles identified in initial database search

277 screened at full text NOD and LE (100%)

8468 articles screened at title and abstract: NOD (100%) and LE (20%)

15 studies included in review

Results

Fifteen RCTs of 1,109 post-treatment survivors were included in analysis. Studies were published between 2004 and 2023, encompassing diverse populations and geographic locations; ten in the United States of America (USA) (Berg et al., 2020; Grenawalt et al., 2023; Haydon, 2021; Howell et al., 2018; Kazak et al., 2004; Kunin-Batson, Steele, Mertens, & Neglia, 2016; Psihogios et al., 2021; Rabin et al., 2016; Rosenberg et al., 2021), two in China (Cheung et al., 2019; Li et al., 2022), and one each in Turkey (Arpaci, Altay and Copur, 2023), Australia (Sansom-Daly et al., 2021), and the Netherlands (van Dijk-Lokkart et al., 2016). A narrative synthesis was performed to provide an overview of main outcomes and trends. Meta-analysis was not performed because of the heterogeneity in interventions and outcomes reported. For effect sizes, scan here:

