



Skin Cancer Prevention and Quality of Life in Survivors of Childhood, Adolescent, and Young Adult Melanoma: A Systematic Review

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Introduction

Melanoma is the most common skin cancer diagnosis in children, adolescents, and young adults¹, and its survival outcomes are generally very favorable. The effects of cancer treatment at an early age on overall quality of life need to be further explored.

Melanoma survivors have an increased risk of melanoma and nonmelanoma skin cancers compared to the general population.² However, the impact of survival of childhood, adolescent, and young adult melanoma on future sun protective behavior have been little explored.

Objectives

The purpose of our study is to conduct a systematic review of the literature to determine if health related quality of life and preventative behavior are impacted by a diagnosis of melanoma in childhood or early adulthood.

Cancer Prevention Relevance

This systematic review will use existing literature to describe how a melanoma diagnosis in one's early years affects their behaviors with regard to sun protection and skin cancer prevention. This information can be used to develop effective education materials and other interventions to encourage survivors of melanoma to engage in sun exposure prevention.

Methods

A systematic review of the literature is being done to address the research questions, according to PRISMA guidelines. We searched the relevant literature on the Medline and EMBASE databases from January 2000 to May 2021. Our original search was for articles surrounding melanoma survivorship in children, general melanoma survivorship, and survivorship of childhood cancer in general. Our second search included survivors of adolescent and young adult melanoma, as well as survivors of adolescent and young adult cancers in general.

Search Results

Our initial search, which focused on childhood cancer, yielded 133 citations after removing duplicates. Only 17 citations were relevant to our research following eliminations based on abstracts and titles. Our second and expanded search yielded 673 citations, of which 161 were duplicates, leaving us with 512 usable citations. Of these 512, 166 were relevant to our research based on abstracts and titles. This gave us a total of 183 usable entries.

Anticipated Results

We are currently undergoing our second round of eliminations, which are based on complete articles. Based on what we have read so far, it is expected that our findings will demonstrate that the melanoma diagnosis in children, adolescents, and young adults will adversely affect quality of life metrics. Additionally, we expect that survivors of childhood, adolescent, and young adult melanoma will be more likely to practice sun exposure prevention behavior than the general population.

Discussion and Conclusion

The results of this review have the potential to help clinicians, patients, and families understand the broader implications of a melanoma diagnosis in the formative years of a patient's life. Furthermore, it can give health professionals a better understanding of how to structure public health interventions regarding sun safety for survivors of childhood, adolescent, and young adult melanoma, including when and how to implement them.

Responsible Conduct of Research

For this research project, we followed the PRISMA guidelines for a systematic review. Dr. Mary Austin, the PI, submitted a research protocol and obtained research approval. The MD Anderson PI was responsible for maintaining documents and approvals for all modifications in the protocol.

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References

- ¹Stefanaki C, Chardalias L, Soura E, Katsarou A, Stratigos A. Paediatric melanoma. *J Eur Acad Dermatol Venereol*. 2017 Oct;31(10):1604-1615. doi: 10.1111/jdv.14299. Epub 2017 May 22. PMID: 28449284.
- ²Bradford PT, Freedman DM, Goldstein AM, Tucker MA. Increased risk of second primary cancers after a diagnosis of melanoma. *Arch Dermatol*. 2010;146(3):265-272. doi:10.1001/archdermatol.2010.2