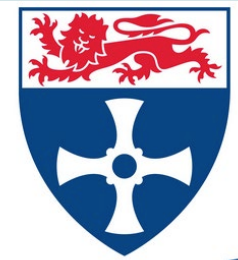


A Systematic Review of the Perceived Barriers and Facilitators to Physical Activity in Childhood Cancer Survivors



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Introduction

- Childhood cancer survivors (CCSs) have higher risk of obesity¹, type 2 diabetes² and cardiovascular disease³.
- Increased levels of physical activity (PA) could potentially prevent or lessen such late effects.
- However a large proportion of CCSs have been found to not meet recommendations for PA⁴ and also engage in less PA than healthy controls⁵⁻⁶.
- It is necessary to understand the factors that influence PA engagement in CCSs to create successful interventions.

Aims

- Conduct a systematic review of qualitative studies to investigate the perceived barriers and facilitators to PA in CCSs.
- To synthesise what is known from these studies about PA barriers and facilitators amongst CCSs.
- Identify potential gaps and limitations in the existing research.

Methods

- Inclusion criteria: CCSs diagnosed ≤ 18 years who have completed cancer treatment or be on maintenance therapy.
- A medical librarian was consulted to develop the search strategy.
- The review protocol was registered on PROSPERO.
- Quality was assessed using the Critical Appraisal Skills Programme (CASP)⁷ Qualitative checklist.
- Authors interpretations and CCSs quotes were included in a thematic synthesis⁸ which involved free line-by-line coding, development of descriptive themes and development of analytical themes.
- Analytical themes will be mapped onto the Theoretical Domains Framework⁹ and submitted for publication in a medical journal.

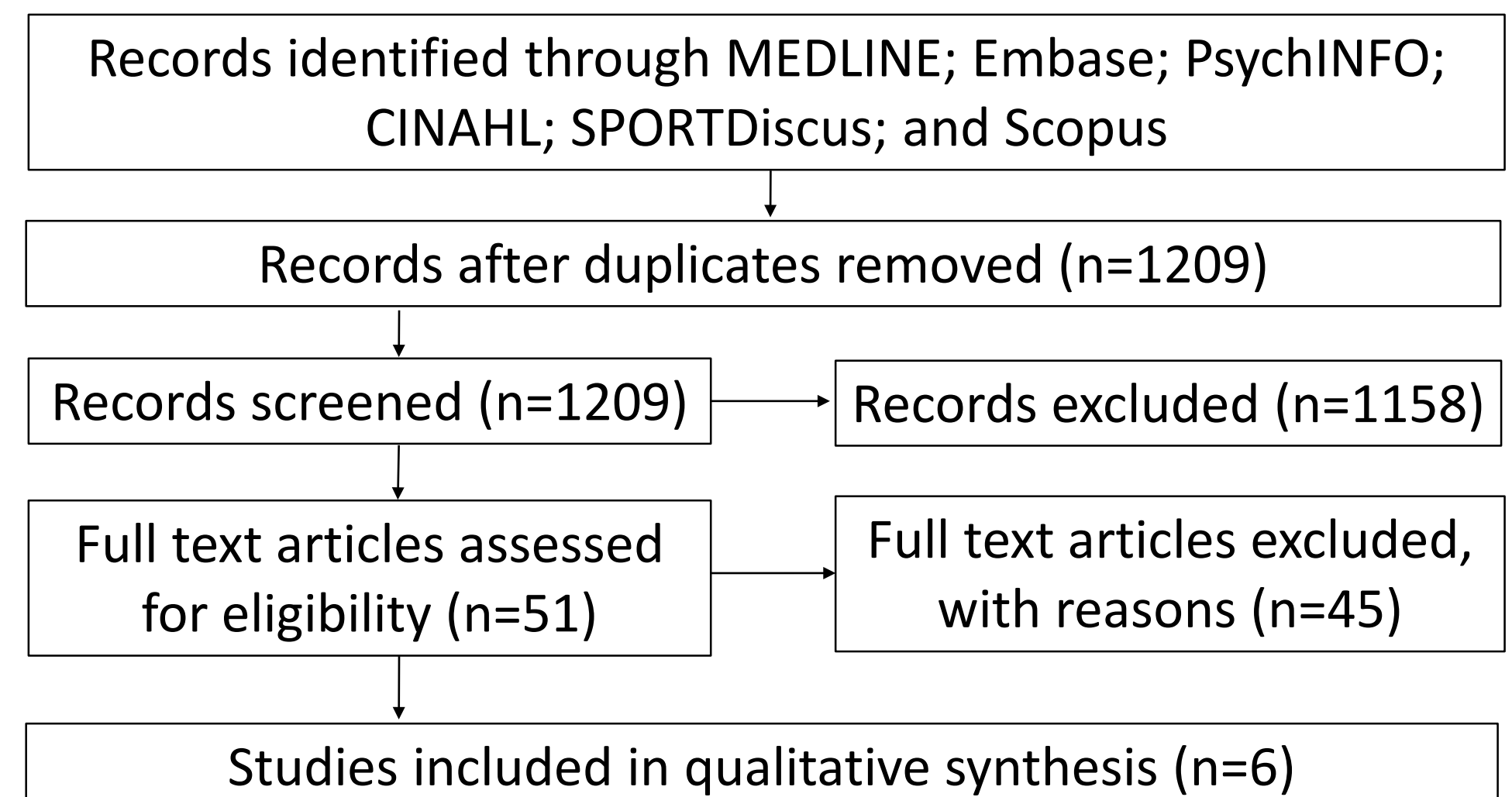
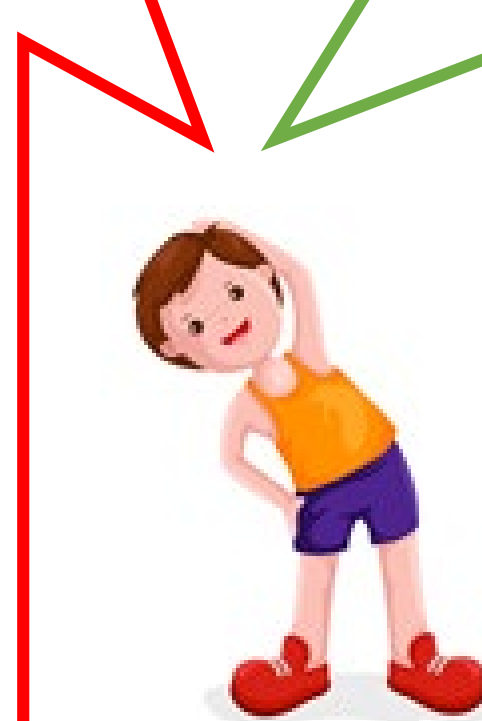


Fig 1. Selection process of eligible qualitative papers

Findings

- 6 papers were included in thematic synthesis¹⁰⁻¹⁵.
- Below the findings are organised by the barriers and facilitators to PA in CCSs.

- Adverse physical and mental effects of treatment
- Poor self esteem
- Lack of friends to engage in PA with
- Friends having different health goals
- Engaging in other activities
- Negative parental modelling
- Negative/ non-supportive home environment
- Parental discouragement
- Negative beliefs and emotions
- Not enough time for PA
- Unsatisfactory information with health professionals
- Fatigue
- Feeling different to non-CCSs
- Lack of finance
- Lack of reliable information



- Positive/supportive home environment
- Parental encouragement
- Negative beliefs and emotions as a motivator
- Positive beliefs and emotions
- Making time for/ prioritising PA
- Health professional highlighting importance of PA
- Interactions with other CCSs
- PA facilitates further PA
- Access to exercise facilities
- Resources providing PA information
- Engage in previously enjoyed but also new PA activities
- PA improves self esteem
- PA protects/ improves health
- PA gives opportunity to spend time with friends and family and build new friendships
- Positive parental modelling

Discussion

- Only a small number of papers met the eligibility criteria.
- Current studies include samples which are heterogeneous (e.g. age at study/diagnosis, stage of treatment) which made a large number of papers ineligible for this review and the ones that were, difficult to interpret.
- Four out of six of the papers included in this review also looked at a range of health behaviours, not just PA which again made it difficult to separate out the findings for different behaviours.
- Although a number of perceived barriers and facilitators to PA in CCSs were identified in this review, these were from a limited number of studies, which were methodologically limited and which included small samples.

Conclusion

- Further qualitative studies are needed to be able to fully explore PA in CCSs.

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