

Physical activity in adolescent cancer survivors: A dyadic study exploring adolescents and their parents

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Introduction

- Adolescent cancer survivors experience several negative short- and long-term side effects and health outcomes as a result of their past therapy:
 - Comorbidities, chronic conditions, premature mortality, and physical limitations¹
 - Psychological, emotional, and social impairments²
 - Reduced quality of life³
- Recent systematic reviews and meta-analyses show that physical activity can help mitigate these negative side effects and health outcomes in *children* and *adults* with cancer^{4,5}
 - Less information exists for adolescent cancer populations
- The Canadian Society for Exercise Physiology recommends 60 minutes of moderate to vigorous physical activity daily for youth⁶
 - Less than 30% of cancer survivors 9-18 years of age are meeting these guidelines⁷
- The determinants of physical activity in this population need to be better understood to highlight what factors to target in behavioural interventions

Parent as agent of Influence

- Parents considerably impact their child's physical activity behaviour⁸
 - Can positively influence behaviour by providing different types of support, namely:
 - Instrumental (e.g., paying fees)
 - Conditional (e.g., engaging in activity)
 - Motivational (e.g., encouragement)
 - Informational (e.g., discussing benefits)⁸
 - Can negatively influence and undermine behaviour by exerting control
- While developmental theories suggest parents influence diminishes from early childhood onwards⁹, this may not be the case for adolescent cancer survivors
 - Adolescents experience increased dependence on their parents during treatment and into survivorship²
 - Isolation from peers during treatment puts emphasis on parents as a main source of support¹⁰

Knowledge Gaps

- The mechanisms by which parents exert influence over their adolescents' physical activity behaviour are unknown
- Investigation of parental *support* and *control* within single studies are lacking
- Research including parents and adolescents' perspectives is necessary to investigate the distinct perceptions of support/control they are experiencing, as well as determine if there are discrepancies

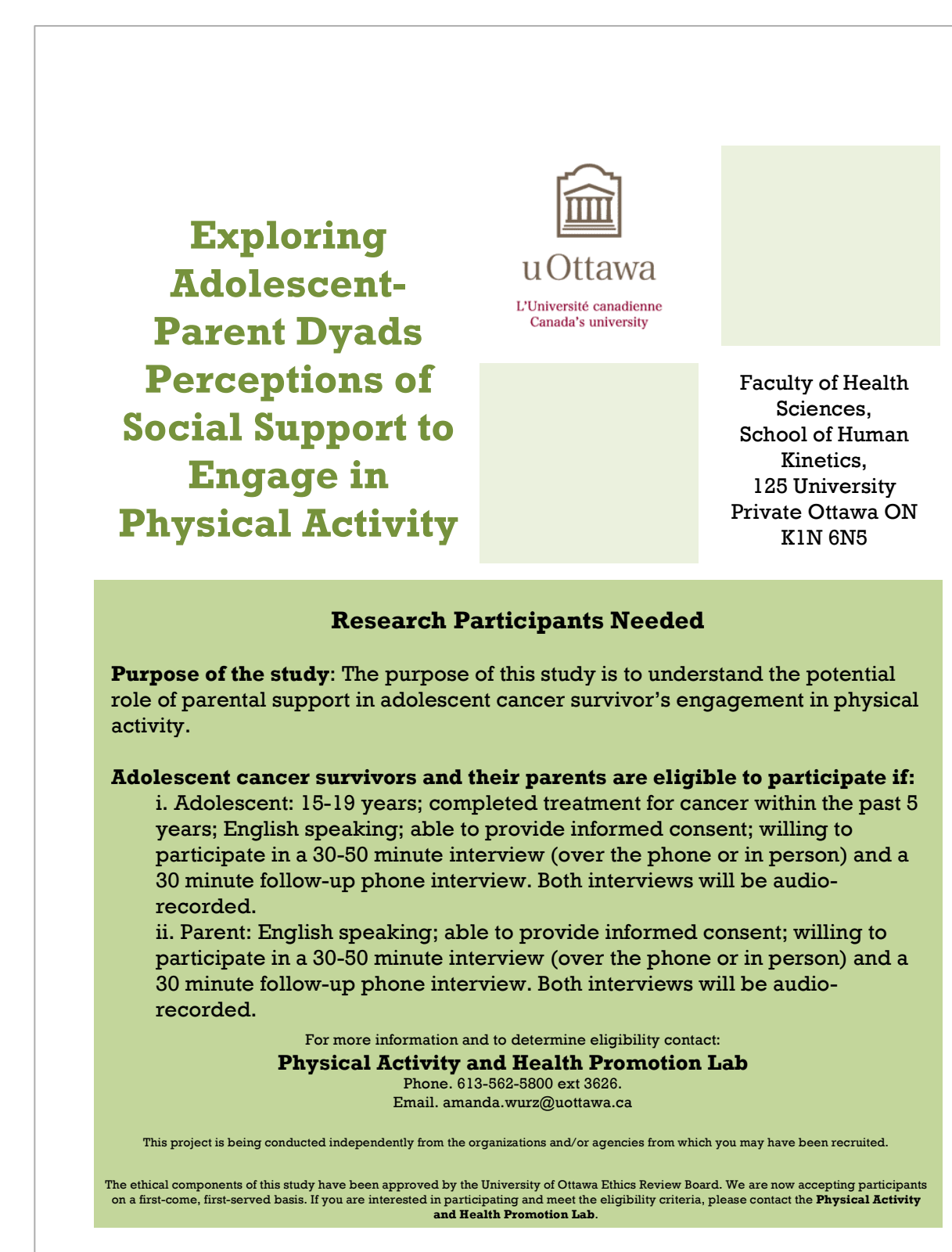
Purpose

- Explore how parents support and/or undermine their adolescents' physical activity behaviour after the latter have completed treatment for cancer

Methods

Recruitment

- 10-15 adolescent-parent dyads will be recruited using promotional material through:
 - Community programs
 - Youth oncology foundations and associations
 - Youth oncology camps
 - Adolescent oncology websites



Participants

- Adolescent inclusion criteria:
 - 15-19 years old
 - Completed treatment for cancer (< 5 years)
- Parent inclusion criteria:
 - Parent to an adolescent meeting the above inclusion criteria

Data Collection

- Parent-reported
 - Sociodemographic and cancer questionnaire
- Parent- and adolescent-reported
 - Godin Leisure Time Exercise Questionnaire
- 2 interviews audio-recorded and transcribed verbatim
- Performed individually
 - Interview # 1:
 - To gather information concerning perceptions of parental support/control for physical activity
 - 45-minutes in person or on the phone
 - Semi-structured interview
 - Interview # 2:
 - To verify the accuracy of participants' transcripts
 - 15-minutes on the phone

Data Analysis

- Thematic analysis following the flexible guidelines outlined by Braun and Clarke¹¹
 - Become familiar with the data
 - Identify salient features
 - Group similar codes together into subthemes and organize into main themes
 - Perform member checks
 - Internal homogeneity
 - External heterogeneity
 - Generate descriptions for each theme
 - Select representative quotes

Anticipated Contributions

- This study will be the first to examine adolescent cancer survivors perceptions of parental support and control for physical activity using a dyadic approach
- Upon completion this study has the potential to:
 - Support or rebut prevailing socioecological physical activity theories
 - Gain insight into how parents' influence their offspring's physical activity behaviour in the aftermath of cancer
 - Increase awareness of how parents come to support or hinder their adolescents' physical activity behaviour
- If it is determined that parents exert considerable influence over their adolescent's behaviours, then it may help understand, in part, why adolescent cancer survivors are not meeting physical activity guidelines
- These findings may directly impact intervention strategies focused on enhancing physical activity levels by determining if parental support/control should be targeted in behavioural interventions

Future Directions

- In an effort to expand research to improve participation rates, and ultimately improve quality of life, it is hoped this study will inform larger scale qualitative and quantitative studies exploring:
 - Associations between support and physical activity
 - Mechanisms by which parents may exert support and control
 - Mediators and moderators that may influence the association between support/control and physical activity behaviours
 - Parental support in relation to other sources of support
 - Unique influence of different types of support and controlling behaviours on adolescents physical activity behaviour

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