

Physical Activity and Dietary Behaviour among Adolescents who have Completed Active Cancer Treatment – A Study Protocol for a Qualitative Investigation

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Aim: The purpose of this qualitative investigation will be to explore challenges and solutions with regard to physical activity and dietary behaviour before, during and after active cancer treatment from the perspective of adolescents who have had cancer, their parents/guardians and oncology healthcare professionals.

Abstract

Introduction: Approximately 200 Irish adolescents receive a cancer diagnosis each year (1). Cancer treatment during youth can be associated with significant toxicity resulting in cancer-related fatigue, musculoskeletal complications, decreased physical function and quality of life (QoL), and an increased risk for the development of chronic diseases (e.g., obesity and cardiovascular disease) (3). Physical activity (PA) and dietary behaviour change interventions can play an important role in treating and managing cancer-related side effects and support the optimisation of health among adolescent survivors of cancer. (5).

Methodology: An exploratory, descriptive, qualitative research design will be adopted, incorporating focus groups (FGs) and interviews as methods of data collection (See Figure 1). Adolescents aged 12 to 16 years old who have completed active cancer treatment, their parents/guardians and oncology healthcare professionals (e.g., oncologists, nurses, physiotherapists) will be recruited. Semi-structured interview guides will be developed and will include questions that discuss PA and diet i) before, during and after cancer treatment, ii) barriers and facilitators to engaging in these behaviours, and iii) recommendations for a PA and dietary health behaviour change intervention. Data collection will continue until data saturation is achieved (8).

Implications of the Research: To the authors' knowledge this is the first qualitative investigation of PA and dietary behaviour to be conducted among Irish adolescents aged 12 to 16 years who have completed active cancer treatment. This research study will assist in addressing gaps identified in the existing scientific literature, and provide vital information regarding adolescents' experiences of these two health behaviours which can support the optimisation of clinical care for this population. The knowledge obtained in this investigation will inform the development of a PA and dietary behaviour change intervention for adolescents who have completed active cancer treatment which will be implemented and evaluated in a subsequent research study.

Introduction

Approximately 200 Irish adolescents receive a cancer diagnosis each year (1). Advances in the treatment and management of cancer in youth are contributing to an increasing survivor population (2). However, cancer treatment during youth can be associated with significant toxicity resulting in cancer-related fatigue, musculoskeletal complications, decreased physical function and QoL, and an increased risk for the development of chronic diseases (e.g., obesity and cardiovascular disease) (3). The incidence of secondary cancer in adulthood among childhood cancer survivors is five-fold higher than the general population (4). PA and dietary behaviour change interventions can play an important role in treating and managing cancer-related side effects and support the optimisation of health among adolescent survivors of cancer (5). Preliminary data shows engagement in health enhancing behaviours such as PA assist in reducing the risk of developing cardiovascular disease, and increase QoL and fitness among adolescent survivors of cancer (3,5). Given the health and well-being benefits of PA and dietary behaviour interventions experienced by adolescent survivors of cancer, their inclusion in standard cancer care should be advocated. This recommendation is supported by The National Cancer Strategy, which has advocated for the inclusion of survivorship programmes within patient care that focus on physical and psychological factors that impact survivors' health (1). The dearth of support services for youth who have had cancer has been recognised by The Irish Cancer Society and The National Cancer Strategy who have made a commitment in their Strategic Plan to provide more services that aim to improve QoL among this population (1,6).

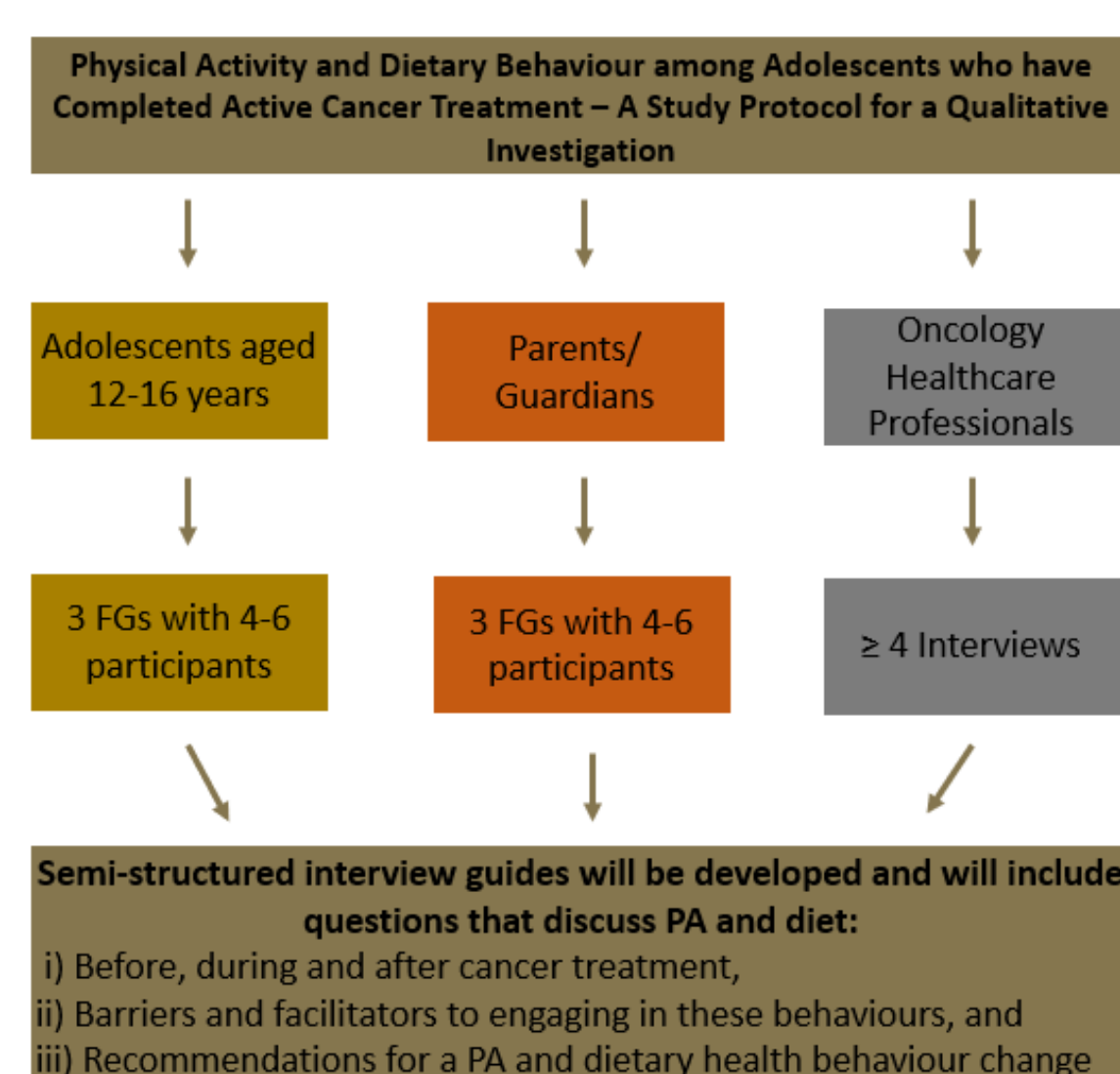


Figure 1. Overview of research methodology.

Methodology

Study Design: An exploratory, descriptive, qualitative research design will be adopted, incorporating FGs and interviews as methods of data collection (See Figure 1).

Participants: Adolescents aged 12 to 16 years who have completed active cancer treatment will be recruited. Given that the parents/guardians of this population, as well as the healthcare professionals who provide their clinical care (e.g., oncologists, nurses, physiotherapists), significantly influence engagement in PA and dietary behaviour, they too will be recruited to this study.

Data Collection: FGs and interviews will be conducted by a researcher trained in qualitative data collection methods and will be supported by an assistant moderator. Semi-structured interview guides will be developed and will include questions that discuss PA and diet i) before, during and after cancer treatment, ii) barriers and facilitators to engaging in these behaviours, and iii) recommendations for a PA and dietary health behaviour change intervention. A minimum of six FGs, with 4-6 participants per group, will be conducted with adolescents who have completed cancer treatment (n≥3 FGs), and separately with their parents/ guardians (n≥3 FGs). A minimum of four interviews will be completed with oncology healthcare professionals. However, data collection will continue until data saturation is achieved (8).

Data Analysis: FGs and interviews will be audio-recorded and transcribed verbatim. Data will be analysed using a thematic analysis approach as described by Braun and Clarke (8). Figure 2 provides an overview of this six step process.



Figure 2. Thematic analysis overview (8).

Implications of the Research and Future Directions

To the authors' knowledge this is the first qualitative investigation of PA and dietary behaviour to be conducted among Irish adolescents aged 12 to 16 years who have completed active cancer treatment. Currently, limited data is available on PA and dietary behaviour change interventions among this population, specifically qualitative data (2). This research study will assist in addressing gaps identified in the existing scientific literature, and provide vital information regarding adolescents' experiences of these two health behaviours which can support the optimisation of clinical care for this population. The knowledge obtained in this investigation will inform the development of a health behaviour change intervention for adolescents who have completed active cancer treatment which will be implemented and evaluated in a subsequent research study.

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