

# CHILDHOOD CANCER SURVIVORS EXCEED HEALTHCARE PROVIDERS' EXPECTATIONS: THE POWER OF CLINICAL CONVERSATIONS

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## INTRODUCTION

Physical activity (PA) can successfully help manage and improve a myriad of cancer-related mental and physical symptoms. Despite strong evidence supporting the benefits of physical activity (PA) in pediatric oncology, patients are yet to be systematically referred to exercise experts in cancer. Healthcare providers (HCPs) may therefore play an important role in promoting PA. In pediatric oncology, one study investigated how HCPs promote PA to childhood cancer survivors (CCS). They found that healthcare providers use different strategies to promote PA and that there is a need for additional training to improve the quality of the conversations with their patients. The authors also commented on the necessity for future studies to provide more insight on PA promotion between healthcare providers and their patients (and family). Therefore, there is a need to better understand the clinical conversations promoting PA among CCS. Toward this goal, we conducted a qualitative study aiming 1) to document healthcare providers' current knowledge when recommending PA to CCS, 2) to identify themes that emerged from conversations promoting PA between healthcare providers and their patients, and 3) to document changes over three months in CCS' self-reported PA following clinical conversations promoting PA.

## METHODS

• **Participants:** Children and adolescents (10 and 17 years old)

	CCS (N=20)
Males	12 (60.0)
Females	8 (40.0)
Age at enrollment, years	14.1 ± 2.4
Age at diagnosis, years	8.8 ± 4.1
Duration of therapy, years	2.0 ± 1.5
Time off therapy, years	3.4 ± 1.6
Diagnosis, N (%)	
Leukemia	10 (50.0)
Lymphomas	4 (20.0)
Solid tumors	5 (25.0)
Other	1 (5.0)
Therapy received, N	
Chemotherapy	19
Radiation therapy	3
Surgery	5
Mental health therapy, N (%)	
No	18 (90.0)

• **Clinical conversations:**

- HCPs received a one-time, 20-minute educational presentation about the benefits of PA in CCS.
- The clinical conversations between the HCPs (6.8 years of professional experience) and their patients (and family) occurred on the same day as the initial clinical appointment. The conversation promoting PA was incorporated into the clinical visit within the timeframe of the regularly scheduled clinical visit. Thus, the conversation promoting PA was not the only topic discussed during the visit.
- No scripts were provided to the healthcare providers, the patients, or the parents. The conversations lasted an average of 21.9 ± 12.6 minutes and were audio recorded using a digital voice recorder. Data saturation was reached.
- **Self-reported PA:** At baseline, 1 week and 3 months, CCS completed the original version of the GSLTPAQ to self-report their weekly frequencies of PA for at least 15 minutes.
- **Written informed consent** was obtained from legal guardians, and **assent** was obtained from the CCS (IRB #00017304)

## RESULTS

A total of 6 themes emerged from the clinical conversations:

- **#1 Introduction of physical activity into clinical conversations**  
HCPs introduced the topic of PA to their patients in varying ways, such as leisure and/or extracurricular activities such as school sports, video games, or computer; patient-specific healthy histories; growth and/or weight management; and energy levels
- **#2 Physical activity recommendations**  
The ability of HCPs to share the PA recommendations was categorized:
  - The PA recommendations were shared correctly (35%).
  - The PA recommendations were incompletely shared (40%).
  - The PA recommendations were not shared correctly (5%).
  - The PA recommendations were not mentioned (20%) - patients were already active.
- **#3 Goal setting, goal progression and goal assessment**  
HCPs helped their patients set specific PA goals; discussed incrementally increasing PA - starting with small goals then working their way up to the weekly moderate to vigorous PA guidelines; and asked if there were any ways to help their patients reach their PA goals.

- **#4 Finding solutions and opportunities to engage in physical activity**  
HCPs inquired about pets at home, hoping to suggest walking them to become more active; asked their patients what activities they enjoy doing and what opportunities they have to become more active. HCPs also asked their patients to think about specific ways that they can become more active and stated that PA can take many forms.
- **#5 Receptiveness about physical activity**  
The majority of CCS (80%) and parents (85%) were receptive to discussions about PA. A few participants, however, were not receptive to PA during the clinical conversations.
- **#6 Benefits of physical activity presented to patients by their oncologists**  
HCPs mentioned to their patients (and family) that PA provides general mental health benefits and physical health benefits; reduces obesity and helps maintain a healthy weight; provides better cardiovascular health and better cognitive health. HCPs also mentioned to their patients (and family) that PA helps with "stress relief" and brain health. HCPs also discussed the musculoskeletal benefits of PA, such as: maintaining bone density, reducing pressure on the joints, and muscular strength

	Baseline	1-week	3-month
<b>Childhood Cancer Survivors (N=20)</b>			
Strenuous Exercise	27.9 ± 28.0	32.4 ± 29.3	30.6 ± 22.1
Moderate Exercise	18.8 ± 20.1	36.9 ± 31.2	40.1 ± 42.1
Mild Exercise	13.8 ± 11.3	34.7 ± 29.4	47.3 ± 31.4
Weekly leisure time score	60.5 ± 50.7	64.5 ± 47.1	68.6 ± 38.4

Following these clinical conversations, all participants reported higher PA levels, with sustained behavioral changes observed at the three-month follow-up.

