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Introduction

- Physical activity (PA) is safe, beneficial, and reduces negative treatment-related effects in adolescents with cancer.
- The **PEER** program (Pediatic cancer patients and survivors Engaging in Exercise for Recovery) is a community-based PA program offered by KCC (Kids Cancer Care) to youth affected by cancer in Alberta.
- Adolescent participation remains low despite program availability and the known benefits of PA.
- Aim: Identify determinants of adolescent PA to guide development of a teen-focused PEER program.**

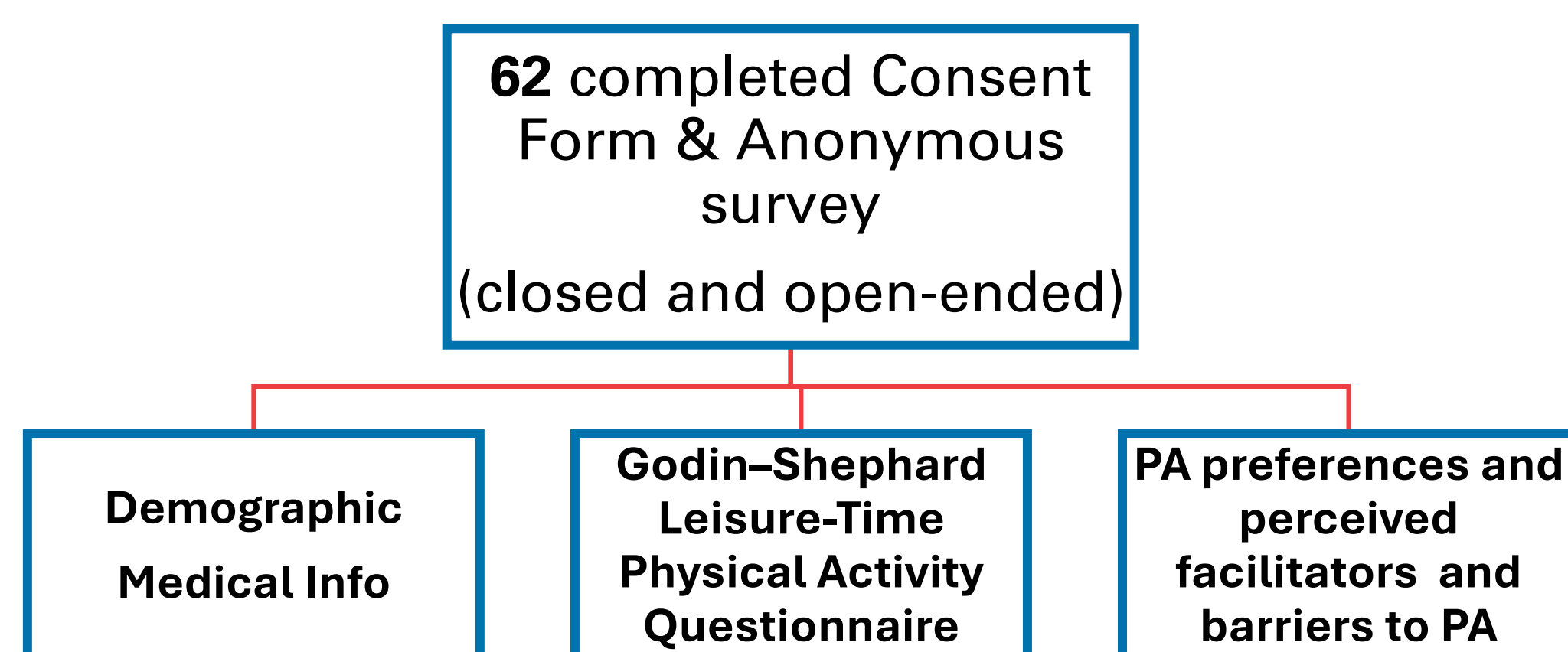
Methods

Participants:

- Adolescents aged 12–17 years old.
- Diagnosed with cancer, or sibling to a child with cancer

Procedures:

- Potential participants were recruited at KCC summer camps (n=90) and emails through the membership (n=160)



- Data analysis:** Closed-ended survey responses were analyzed descriptively; open-ended responses were analyzed using content analysis.

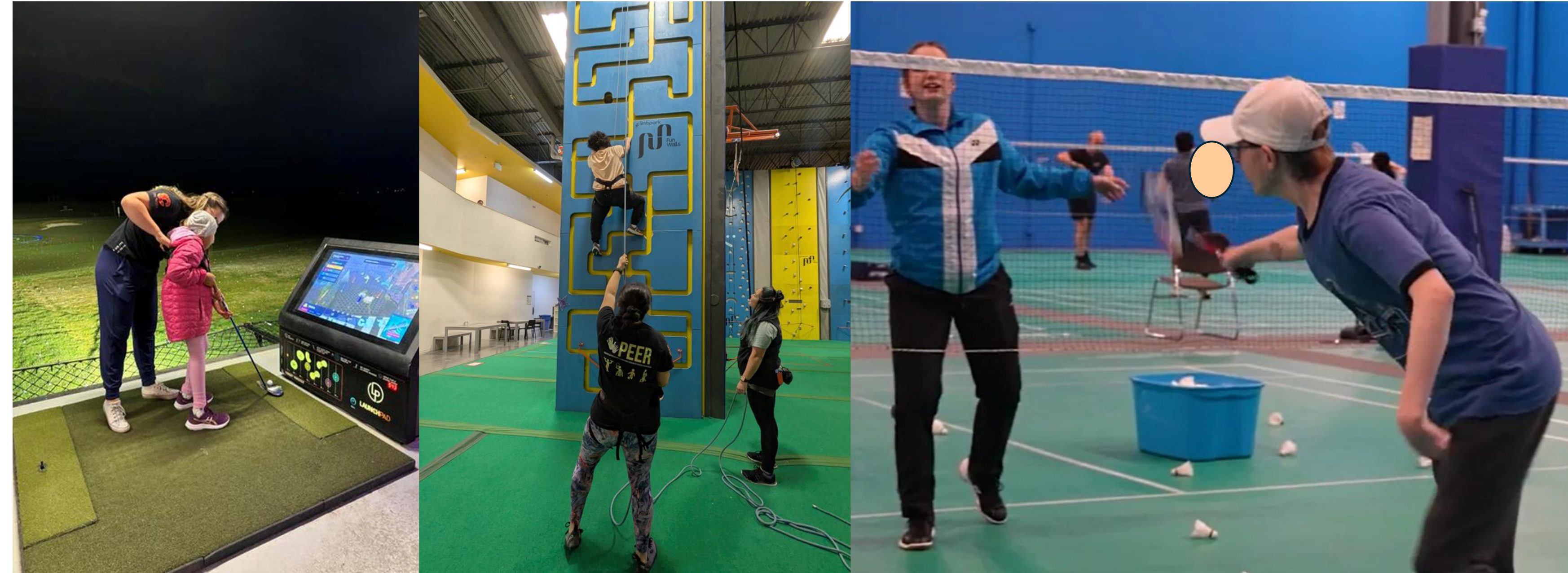


Figure 1. Based on teens' preferences, a modular PEER Teens Program was developed. Each sport module (4–8 weeks) includes activities such as golf, volleyball, climbing, and bowling.

Results (continued)

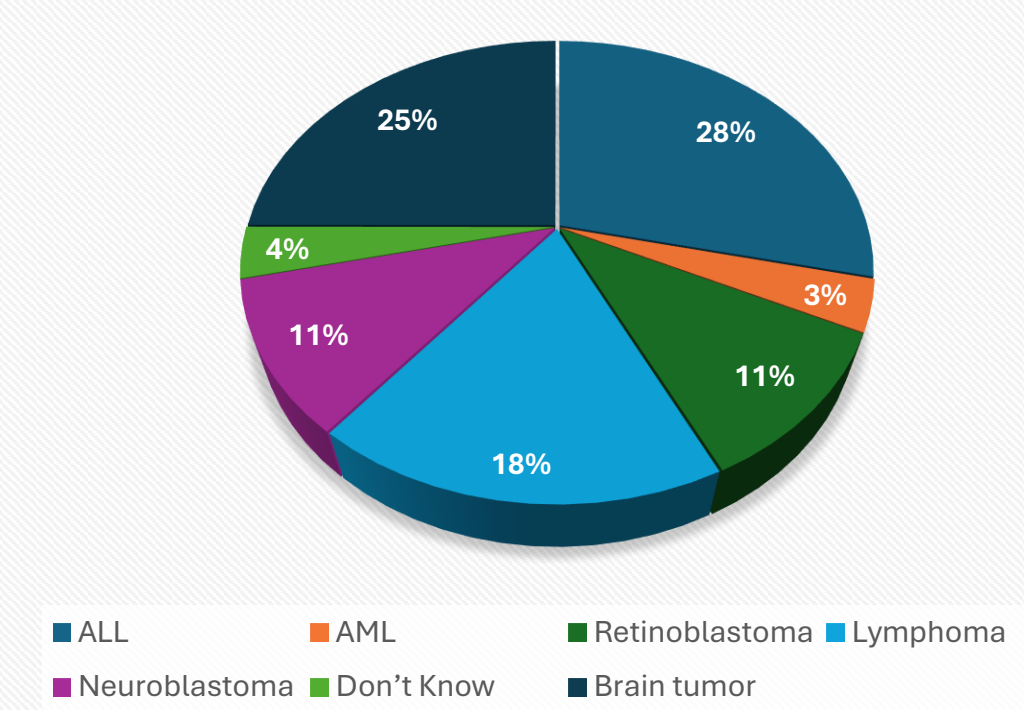
- Sixty-two adolescents (M age=13±1.89 years; 28 diagnosed with cancer, 34 siblings) completed the survey (n=57 camp).
- Most (76%) were not currently participating in PEER and 89% reported being physically active.
- Top barriers to PA included lack of time, energy, and motivation.
- Top facilitators included health and fitness benefits, mood improvement, and enjoyment.
- Four main themes emerged: physical, psychological, social, and opportunity-related factors.
- All included both barriers and facilitators.

Table 1. The Barriers and Facilitators to PA

| Opportunity –related: | Social: | Psychological: | Physical: |
|---|--|--|--|
| Access to suitable or appealing PA options could support or constrain individuals' ability to engage in regular exercise. | Support and companionship from friends or family facilitated PA; lack thereof hindered PA. | Motivation, confidence, and enjoyment influenced PA engagement positively or negatively. | Health status and symptoms either limited or facilitate PA participation. |
| Barrier: "I am a very busy student and often simply just don't have time to exercise more than just a quick walk after getting home." Survivor | Enabler: "Sports make me more connected with my friends and family." Survivor | Enabler: "I really like to improve myself and see progress in my journey." Survivor | Barrier: "School day is tiring, and I don't have energy to participate in moderate to vigorous activity after" Survivor |

Results

Cancer Diagnosis



Preferences to Exercise

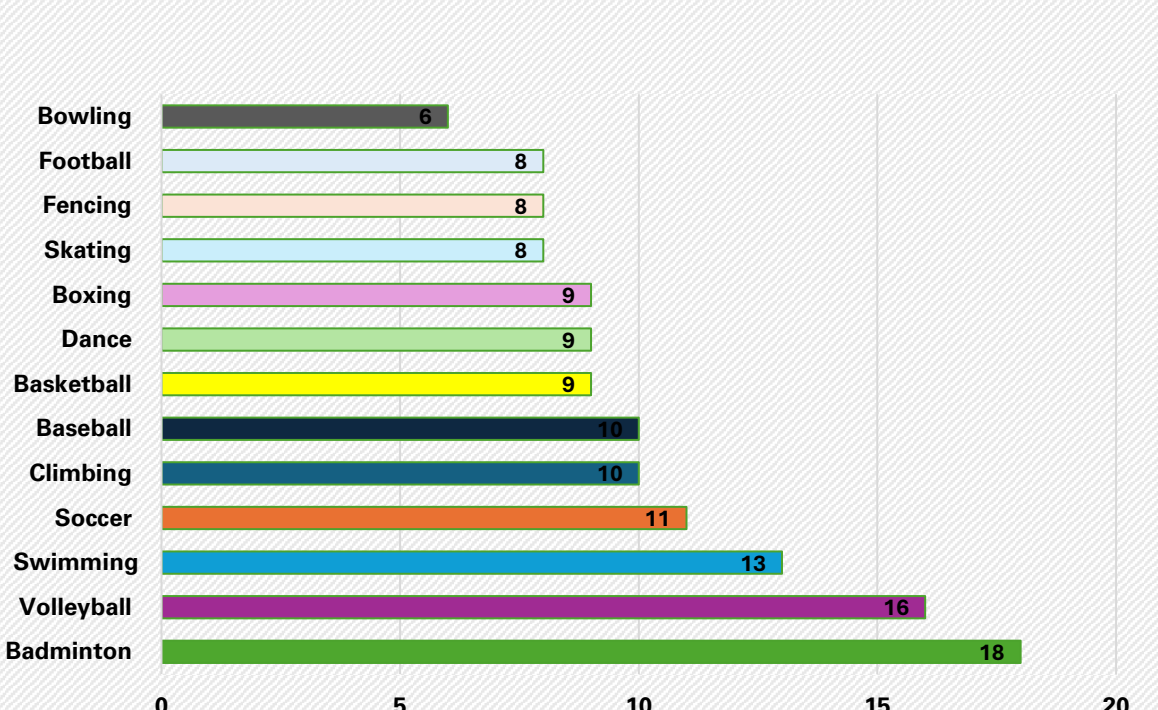


Figure 2. Cancer diagnosis distribution among teens in the study (n = 28)

Figure 3. Participants selected their top three preferred PA from 72 options, with an option to add others.

Acknowledgment: PEER was developed in 2012 at the University of Calgary's Health and Wellness Lab and has been implemented and updated by Kids Cancer Care Foundation of Alberta since 2013. Funded by the Calgary Flames Foundation, RBC, and Jumpstart. We thank the teens, families, and volunteers for their participation and support.

Conclusions

- Findings align with prior research: physical, psychological, and social factors shape PA participation in adolescent cancer survivor
- Integrating youth input is key to program design; addressing barriers, facilitators, and preferences while incorporating social elements enhances engagement and connection.
- Community-based sport modules are currently being implemented and evaluated using RE-AIM, led by specialized coaches and volunteers and supervised by exercise oncology specialists

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