A Guided Web-Based Yoga Series for Pediatric Cancer Survivors

Andrew Chongaway, DPT student Alyssa Deardorff, DPT student Faculty Advisor: Amy Litterini, PT, DPT

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Background

- Yoga is an increasingly utilized modality in both pediatric and adult oncology, but regular practice can be challenging due to infection precautions or lack of access to formal classes.
- The purpose of this project was to provide safe and intensity level-appropriate videos for children to utilize remotely.



Background

- Yoga is a low-impact exercise that is incorporated for strength, balance, pain control, and quality of life.^{1,2}
- Frequently reported symptoms of pediatric cancer survivors include fatigue, pain, decreased cardiovascular functioning, decreased functional mobility and overall decreased quality of life.^{3,4}
- National Comprehensive Cancer Network cancer related fatigue guidelines include yoga as an effective intervention recommendation.⁵
- Furthermore, age-appropriate parameters for pediatric yoga have been previously established and will be incorporated into our design.⁶
- Studies have indicated scheduling conflicts and treatment-related symptoms, as limitations to participation in scheduled yoga classes.^{3,7}

Patient Safety

- A retrospective study by Gilchrist and Tanner⁴ reviewed the use of symptoms to guide physical therapy (PT) interventions in pediatric oncology patients.
- Chart review of 406 PT sessions using the symptom-based approach, only two concerning events were documented.
- Less than 25% of the patients presented with normal hemoglobin levels leading to support of using a symptom-based approach when recommending physical activity interventions, such as yoga, for pediatric cancer survivors.⁴

Methods

- Grant funding was secured from NNECOS
- Literature review was completed 2.
- 3. Collaborated with oncology physical therapists with expertise in yoga and pediatric cancer survivorship to determine safe, effective parameters, and with and understand potential concerns



- 4. A certified child yoga instructor was recruited to ensure appropriate instruction and videographer to produce the videos
- 5. Recruited four child models, ranging in age from 5-14 and representing both genders and different races to participate in the videos to broaden relatability



Results

- Two Videos:
 - Yoga for Pediatric Cancer Survivors: Young Children
 - Yoga for Pediatric Cancer Survivors: Kids-Teens
- Each video had four progressive sequences, each focusing on flexibility, strength, and balance
- Distribution is planned to pediatric oncology specialists through email, flash drives, and secure web-posting by the American Physical Therapy Association.



Younger Children

Bridge Pose

Downward Dog

Airplane Pose







Teenagers

Boat Pose



Warrior I Pose



<u>Tree Pose</u>



Conclusion/Future Direction

- We would like to thank NNECOS for the funding of this project. Without their support this would not have been possible.
- These videos may allow children to utilize yoga more regularly and conveniently.
- These videos allow for potential future research to determine efficacy of this form of yoga as an intervention and analyze the utilization across multiple settings.

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- Bobby Cochrane, PT, DPT, Parent
- Missy Kemp, Parent



Left to Right: Cayce Lannon, RYT200, Certified Children's Yoga Instructor, Alyssa Deardoff, DPT student, Michael D'Apice, videographer, and Andrew Chongaway, DPT student

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