

Introduction

EXERSHINEkids® POWER Bootcamp program, developed by Dr. Amy Wheadon, owner and occupational therapist at kidSHINE, LLC., is a **group therapeutic exercise program that utilizes high intensity exercise to improve strength and self-regulation in children with sensory processing challenges (SPC).**

POWER: Performance and Occupation-Based Workouts for Exercise and Regulation



Strength



Regulation



Confidence



Community

- Bootcamp program utilizes the **ASI® frame of reference in combination with physical activity expertise to target sensory foundations and motor development** while teaching self-regulation strategies to facilitate peer cooperation and social skills.
- Randomized control trials (RCTs) indicate ASI® improves outcomes on individualized goals of functioning and participation as effectively as other OT interventions.⁵
- Activity- and occupation-based physical activity and sports interventions support positive behavior, social participation, and cooperativeness.^{2,4}
- Significant positive correlations between physical activity participation and enjoyment of occupations for children with SPC.³
- Bootcamp program appears to be a novel intervention utilizing high intensity exercise as a key component to address SPC within pediatric OT.
- Feasibility study on Dr. Wheadon's program resulted in **significant improvements in sensory processing areas, balance and motion, praxis and planning, ADL/IADL performance, and social participation.**⁶

Purpose & Aims

Purpose: Obtain feedback on the EXERSHINEkids® POWER Bootcamp program training modules to improve delivery within OT

Aim 1: Measure the sufficiency of the training modules to represent foundational components and implementation of the program

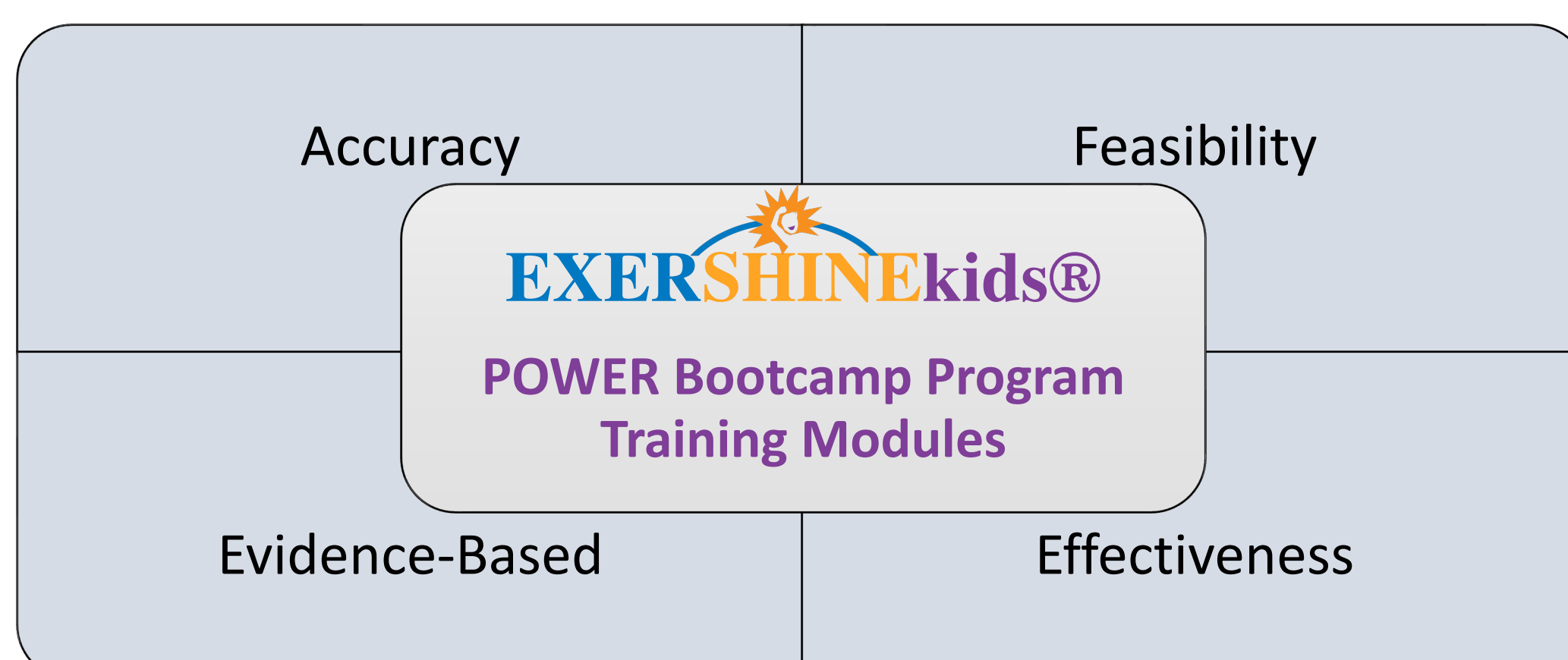
Aim 2: Use feedback from one round survey to suggest training module edits

Training Details: OTPs certified to run the bootcamp in own clinics following the 2-part, live, online training totaling 9 hours. Training is fee-based and approved as an AOTA provider for CEU's.

- 22 OTPs at 13 different clinics have been certified in the program

Key Question

Does the training modules content sufficiently embody the following standards?



Methods

One round of a modified Delphi method was performed to elicit the expert community's view to forecast and refine the intervention training modules in pediatric occupational therapy. Expert views sought from multi-setting **pediatric occupational therapists, occupational therapists using a sensory integration lens, and personal trainers.**

- Step 1**
 - Recordings of training modules edited for confidentiality of clients and clinician trainees, and to reduce response burden of panelists
 - Total of 9-hour training edited to 4-hours with added voiceover from trainer to summarize edited sections that reflected active learning moments in the modules
- Step 2**
 - 9 panelists recruited via email to review the training modules and to complete survey
 - 2 weeks given to watch training videos and complete survey; reminder email sent after one week
- Step 3**
 - 3 out of 9 panelists completed the survey with feedback and suggestions for the modules
 - Qualitative analysis of comments
- Step 4**
 - Suggestions for refinement and recommended future directions given to research team at kidSHINE, LLC

Results

The 24-question survey yielded a total of 72 recorded responses. The tables below provide a summary of panelist responses to items within the four evaluation areas and consensus found amongst the participants. Survey structure allowed a response of "yes" or a response of "not quite" and subsequent narrative feedback. **The 24 survey questions generated 5 accuracy, 9 effectiveness, 4 evidence-based, and 6 feasibility questions.**

Expert Panel (N=3)

- 2 occupational therapists, 1 personal trainer
- Each with 10+ years of experience
- 1 with school-based OT experience, 1 private practice OT, 1 personal trainer/school counselor
- 1 with professional development in SI

Modified Delphi Method Survey

	Yes	Not quite
Accuracy	13	2
Effectiveness	25	2
Evidence-Based	12	0
Feasibility	14	4

Experts In Agreement On

- Strength of evidence-based literature presented: sensory processing, high intensity exercise, developmental trends related to lack of participation in physical activity
- Description of theories and frameworks to support delivery of intervention
- Distinction from ASI®
- Description of the value of OT in program design

Experts Differed On

- Description of intervention level
- Sufficient description of the novel intervention with high intensity exercise delivered through a SI lens to support implementation with fidelity
- Strength of intervention video demonstrations to support replication to ensure implementation with fidelity

Discussion

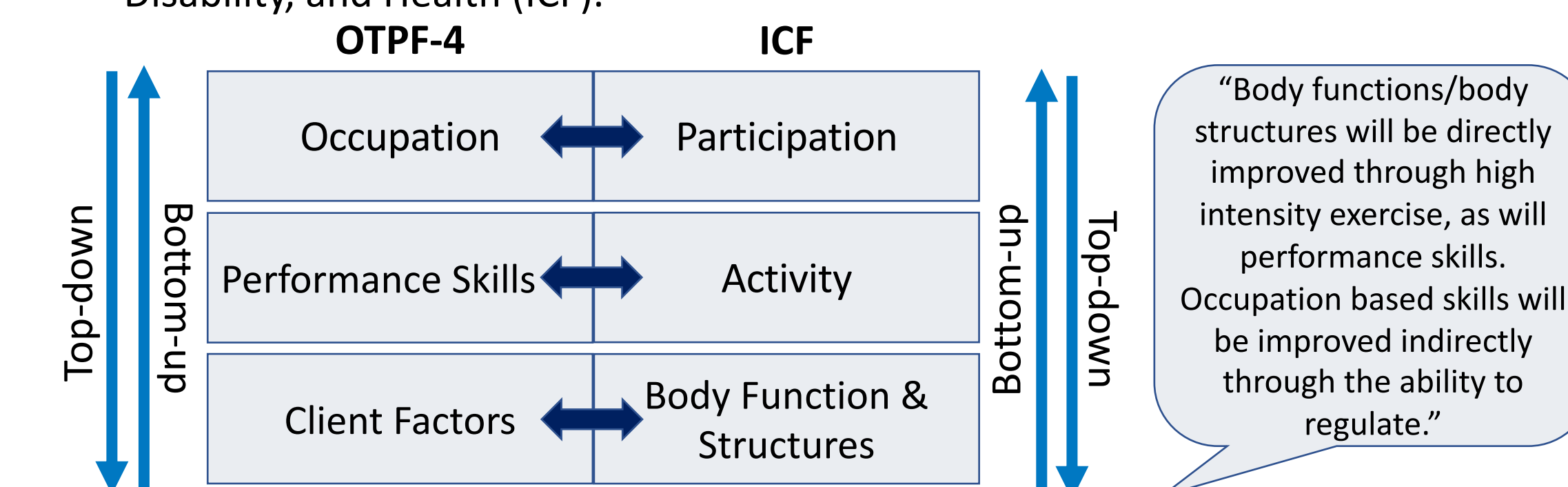
Study aimed to seek perspectives from OTs and personal trainers regarding the training modules for the EXERSHINEkids® POWER Bootcamp Program as a novel pediatric OT intervention utilizing high intensity exercise. Feedback on the modules were sought to identify **areas for refinement** to improve delivery to OTPs as a replicable sensory-based OT intervention supporting self-regulation and functional outcomes in children with sensory processing challenges.

Supporting Implementation Fidelity

- Strength of video demonstrations to represent program structure, activity implementation, and facilitation of group social skills and participation.
- Strength of information on how to provide training for use of volunteer and paid interns (non-OTPs) to support diverse clients.
- Clarity of module content connecting information on high intensity exercise to activate specific sensory systems to support improved regulation.

Level of Intervention

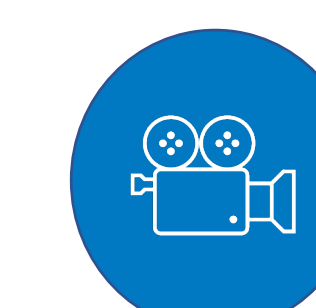
- Clarification of intervention level according to the Occupational Therapy Practice Framework (OTPF-4) and International Classification of Functioning, Disability, and Health (ICF).



Future Directions & Limitations

Future Directions and Recommendations

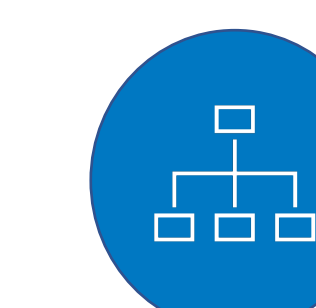
- Consider feedback for training module edits for additional Delphi study with different expert sample
- Add to literature base on top-down and bottom-up intervention outcomes in ASI® and physical activity



↑ Video Representation



↑ Support Staff Training



Clarification on Intervention Level



Participation Outcomes

Limitations

- Lengthy training recordings increased response burden, contributing to an unsatisfactory response rate and minimal narrative feedback within the survey; small panelist size, N = 3
- Timing of scheduled live trainings in project timeline for recording and editing
- Panelist perspectives on own 'expert' status vs. learning opportunity

1. Bahrami, F., Movahedi, A., Marandi, S. M., & Sorensen, C. (2016). The effect of karate techniques training on communication deficit of children with autism spectrum disorders. *Journal of autism and developmental disorders*, 46, 978-986.
2. Cahill, S. M., Egan, B. E., & Seber, J. (2020). Activity-and occupation-based interventions to support mental health, positive behavior, and social participation for children and youth: A systematic review. *The American Journal of Occupational Therapy*, 74(2), 7402180020p1-7402180020p28.

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