



Occupational Therapy's Role in Treating Childhood Obesity: Supplementing UAB's *Bright Bodies* Program

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Introduction

Background:

- According to the CDC, 20% of children and adolescents in the United States (US) are obese or overweight.
- Obesity can significantly affect a child's occupational performance, including:
 - Decreased participation in various areas of occupation, like social participation, ADLs, education, work, play/leisure, and sleep/rest.
 - Decreased social participation leading to increased risk of mental health concerns, lower self-esteem, and increased risk of bullying.
 - Decreased occupational performance in education and work impacting a child's future and emotional well-being. Mental health disorders like anxiety and depression can reduce participation in ADLs.
 - Decreased occupational performance in play/leisure activities creating an imbalance between sedentary and physical activities, leading to isolation and weight gain.
- The University of Alabama at Birmingham's (UAB) *Bright Bodies* program is a virtual 12-week family-based lifestyle intervention using nutrition education, behavioral modification, and exercise to address weight and weight-related issues in children ages 7 to 13 years.
 - Program includes two evening sessions per week. One session consisted of a 45-minute behavioral modification or nutrition lesson followed by a 45-minute physical activity lesson. The second 45-minute session focused solely on physical activity.
 - The program has experienced challenges with participant retention, engagement, and caregiver involvement.
- Purpose:** The purpose of this capstone project is to supplement the existing *Bright Bodies* program with occupational therapy-based strategies to improve participant retention, engagement, and caregiver involvement.

Methods

Project Design:

- Developed through an extensive literature review, background information from Yale and UAB's *Bright Bodies* programs, a brief needs assessment conducted with UAB's *Bright Bodies* coordinator and stakeholders.
- The program developer utilized occupational therapy strategies based on principles from the OTPF-4 to target project outcomes.
- Strategies used included revising the existing UAB 'BrightBucks' system, modifying lessons to facilitate greater participant interaction, and using caregiver feedback polls to develop resources tailored to participant needs.
 - Participant retention = the program developer designed a "BrightBucks" recognition scoreboard to be displayed at the start of each *Bright Bodies* lesson, promoting attendance, recognizing participant effort, and keeping group members motivated.
 - Participant engagement = the program developer modified lessons using Zoom Whiteboard and Canva to address activity demands in virtual setting by displaying participant feedback and answers, helping support group understanding of topics, increasing peer-to-peer and goal-directed interaction, and promoting open communication during sessions.
 - Caregiver involvement = the program developer verbally administered caregiver feedback polls to assess participant needs and ensure that lesson topics were relevant and meaningful.
 - Based on caregiver feedback, the program developer created an informational handout outlining where to stay active in the surrounding areas.

Participants:

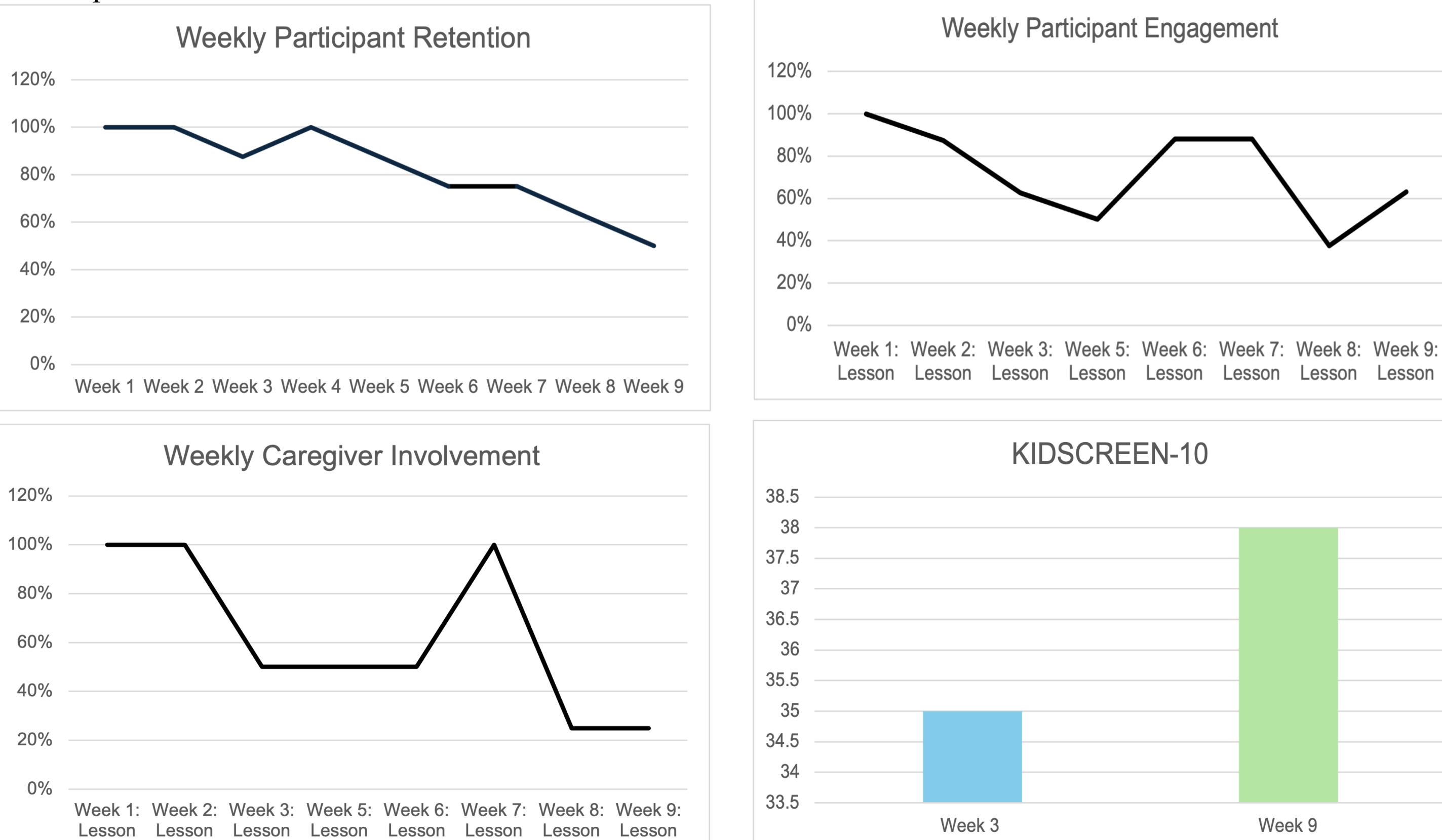
- Families with children within the age range who have a body mass index (BMI) at or above the 85th percentile and have a caregiver available to attend each session. Interested families were recruited from the Children's of Alabama SHINE Clinic through an online interest form and subsequently contacted by phone to confirm their willingness to participate.

Data Collection & Analysis:

- Caregivers completed the KIDSCREEN-10, a health-related quality of life (HRQoL) survey, at weeks three and nine to assess changes in their child's HRQoL. The caregiver confidence survey was conducted at week nine to assess whether the caregiver's confidence in supporting health-related behaviors increased throughout the program.

Results

- Seventeen families confirmed participation before the start of the program; however, four began, and three completed it.



Discussion

Interventions:

- Behavioral and lifestyle modification is a core component of the *Bright Bodies* curriculum. These interventions include strategies such as monitoring eating and activity habits to identify triggers, setting realistic and achievable goals, emphasizing a non-diet approach to prevent restrictive dieting, and teaching problem-solving techniques to reinforce positive behaviors, like increasing physical activity and making better food choices.
 - This project did not measure or track changes in participant weight or BMI; however, this approach led to modest improvements in child HQoL and increased caregiver confidence in supporting their child by establishing healthy habits and routines.
 - These findings show interventions that include goal setting, nutrition education, and learning how to make healthier choices throughout an individual's daily routine are essential in the treatment and prevention of childhood obesity.

Importance of Caregiver Involvement:

- When implementing this project, caregivers' involvement was vital to the program's success.
- The transition from in-person to virtual delivery of *Bright Bodies* sessions required caregivers to actively log their child into Zoom for two evenings a week for nine consecutive weeks. Caregivers needed to carry over what their child learned in the weekly lessons at home and school to show continued improvement in health-related behaviors over time.
- Mary Savoye, creator of the *Bright Bodies* program, further emphasized the role of parents/caregivers in treatment and prevention of childhood obesity, stating it is "fundamental to include the parent or caregiver who is the agent of change in the home. The parent or caregiver generally purchases the food, prepares the food, and acts as a role model for the family unit."

Discussion continued

Program Retention:

- Participant retention remained a constant challenge throughout this project. One family confirmed they could no longer participate in the program due to scheduling conflicts beyond their control. Previous research studies and programs addressing childhood obesity also faced issues with program retention.
- Previous research programs and the UAB *Bright Bodies* intervention identify participant retention as a common challenge that future childhood obesity treatment programs should consider.

Implications for OT Practice:

- These results support engagement in health management occupations, such as physical activity, nutrition management, and social/emotional health promotion and maintenance, to help learn how to seek occupations that support health and make choices to improve quality of life.
- OTPs are uniquely qualified to treat individuals with childhood obesity due to their expertise in performance patterns and occupations. By educating participants on how to create, modify, and establish healthy habits and routines, OTPs can help promote sustainable lifestyle changes that lead to positive changes in weight and BMI.
- The results also support AOTA's Vision 2030, which aims to "establish occupational therapy's importance across various settings, demonstrating its unique value in improving individuals' quality of life and functional abilities," thereby underscoring occupational therapy's importance across settings (AOTA, 2025).
 - The UAB *Bright Bodies* staff nutritionist stated the program developer's involvement "highlighted to every other profession involved that occupational therapy is critical in every area of life, and the skillsets that you have are essential components of healthcare, both prevention and intervention."

Conclusion

- This project emphasizes the importance of lifestyle-based interventions and caregiver involvement in developing and implementing treatment programs for childhood obesity.
- Previous literature and this project's findings indicate OTPs can help treat and prevent obesity in children.
- OTPs have the unique ability to adapt, establish, and modify occupations and performance patterns that increase participation and promote healthy behaviors, leading to long-term change within this growing population.
- Occupational therapy must play a role in the treatment and prevention of childhood obesity to decrease its impact on occupational performance and quality of life.

References

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Acknowledgement & Contact information

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