

Effects of Brief Physical Activity & Mindfulness on Elementary Students' Attention

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SETTING & BACKGROUND

- Brocton Central School in Brocton, NY
- Rural school: 524 students in pre-kindergarten through 12th grade
- 52% of the student body is classified as economically disadvantaged
- Identified as a target school by NYS Education Department

Challenges Specific to Brocton School

- Increase in Functional Behavioral Assessments due to attention and emotional dysregulation
- Increase in referrals for sensory concerns in typically developing children



PIO QUESTION

Does the use of brief classroom breaks integrating physical activity and mindfulness (I) increase attention to classroom tasks (O) in elementary school children (P)?

SIGNIFICANCE TO OT

OT Role in School Based Settings
Advocate for school-wide initiatives to promote learning, health, wellness and engagement.
Conduct program evaluations to determine effectiveness.
Provide professional development and training for teachers.

(AOTA, 2017)

LITERATURE REVIEW



- Sixteen appraised articles
- Published between 2005-2018

Physical activity improves attentional outcomes with elementary aged children within the classroom

Mindfulness has been shown to improve attentional outcomes with elementary aged children within the classroom

DESIGN & IMPLEMENTATION

- Participants:**
- N=33 students
 - Two fifth grade classrooms
 - Mean age = 10 years, 4 months

A CLASSROOM BREAK IN TEN MINUTES OR LESS

- Daily for six-weeks
- Embedded into the classroom daily schedule

FOUR MINUTES OF FUNTERVAL PHYSICAL EXERCISES

- Squats, jumping jacks, and high knees

THREE MINUTES OF MINDFULNESS ACTIVITIES

- Mindful listening, deep breathing, body scan, and anchor breathing

DATA COLLECTION

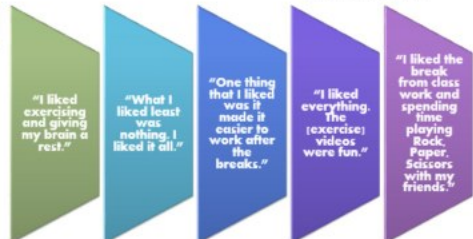
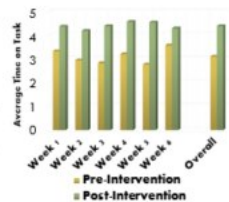
- Momentary time sampling data collection
- Six pre- and post-intervention observations
- Post-intervention student survey

OUTCOMES

Students' Most Liked Aspect of Classroom Breaks



Average Change in Attention by Week



SUMMARY

All students can benefit from participating in classroom breaks that provide brain-stimulating physical exercises and mindfulness calming strategies. Providing school wide initiatives that promote student occupations and training teaching staff are vital roles of the school-based occupational therapist.