

POSTER PRESENTATION

Open Access

P02.72. A pilot investigation of alignment-based yoga for pediatric obesity

K Hainsworth^{1*}, K Salamon², S Stolzman², P Simpson¹, D Eslinger³, B Mascarenhas⁴, X Liu¹, K Khan¹, B Fidler¹, S Weisman¹

From International Research Congress on Integrative Medicine and Health 2012
Portland, Oregon, USA. 15-18 May 2012

Purpose

Although exercise is a primary tool for weight reduction, recent findings of aberrant biomechanics in obese youth have raised concern over traditional exercise prescriptions. Given that injury and disability often act as barriers to physical activity (PA), particularly for those with increased weight, safe and appealing interventions are urgently needed. To that end, this study examined the benefits of a yoga intervention for obese adolescents.

Methods

Adolescents referred to a pediatric weight management clinic (BMI > 95th percentile and ≥ 1 co-morbidity) were recruited to participate in an 8-week study involving bi-weekly, 60-minute Iyengar style yoga classes. All questionnaires and assessments of physical functioning were conducted immediately before and after the 8-week intervention. Assessments included prior experience and expectations, health-related quality of life (HRQOL), state anxiety, and functional limitations. Standardized assessments of participants' physical abilities included push-ups, sit-ups, a step test, and sit to reach. PA levels were objectively assessed using a hip-mounted Actical accelerometer worn 7 consecutive days (pre and post-yoga).

Results

Sixteen youth (11-17 years, M 13) attended at least 7 classes. Half reported experiencing pain in the 2 weeks prior to consent (usual pain intensity M 5.88 ± 2.30). Sit-to-reach improved ($p < .05$) from pre (M $6.20 \text{ cm} \pm 8.86$) to post (M $8.83 \text{ cm} \pm 5.62$) intervention. Across almost all domains, participant and parent reports of HRQOL

significantly improved ($p's < .05$). Self-reports of state-anxiety decreased ($p < .05$). Whereas time spent in Sedentary, Light and Vigorous PA did not change, time spent in Moderate intensity PA increased ($p = .05$) from pre- (M $21.82 \text{ min. per day} \pm 25.71$) to post-yoga (M $27.26 \text{ min. per day} \pm 16.44$) intervention.

Conclusion

These preliminary findings are encouraging, and suggest that alignment-based yoga may be a safe and effective intervention for pediatric obesity.

Author details

¹Medical College of Wisconsin, Milwaukee, USA. ²Children's Hospital of Wisconsin, Milwaukee, USA. ³University of Saskatchewan, Saskatchewan, Canada. ⁴Santosh Yoga, LLC, Wauwatosa, USA.

Published: 12 June 2012

doi:10.1186/1472-6882-12-S1-P128

Cite this article as: Hainsworth et al.: P02.72. A pilot investigation of alignment-based yoga for pediatric obesity. *BMC Complementary and Alternative Medicine* 2012 **12**(Suppl 1):P128.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



¹Medical College of Wisconsin, Milwaukee, USA
Full list of author information is available at the end of the article