

## Exploring OT for Idiopathic Toe Walking: Comparing Interdisciplinary Practices

M. Irma Alvarado, PhD, OT/L, FAOTA<sup>1</sup>, Cylie Williams, PhD, DPM<sup>2</sup>, Leigh Lehman<sup>3</sup>,  
Ileana S. McCaigue, OTR<sup>4</sup>, Delaney Doyle<sup>5</sup>, Katy Hendry, Olivia Trull, Kylie Ellington,  
Kylie Ellington, MS, OTR/L, CPAM<sup>6</sup>

<sup>1</sup>Brenau University, Cumming, GA, USA; <sup>2</sup>Monash University, Melbourne, N/A, Australia; <sup>3</sup>Brenau University, Gainesville, Georgia, United States; <sup>4</sup>Self-Employed, Suwanee, Georgia, United States; <sup>5</sup>Gainesville, Georgia, United States; <sup>6</sup>Rodger's Bridge Pediatric Therapy, Lawrenceville, Georgia, United States

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Primary Author and Speaker: M Irma Alvarado, [ialvarado@brenau.edu](mailto:ialvarado@brenau.edu)

**PURPOSE:** OTs work with children to ameliorate the lasting effects of idiopathic toe walking (ITW). A variety of treatment approaches and different therapeutic outcomes are reported. Minimal research exists on the variety of interventions used by professionals to address ITW or OT perspectives for treating ITW. The purpose of this study was to examine OT practice for children with ITW compared to other healthcare professionals from a larger study that did not include OT data (Williams, Gray, et al., 2020). The research question asked, Does occupational therapy differ significantly in therapy for ITW compared to other health professionals?

**DESIGN:** This quasi-experimental exploratory study used survey data from a Qualtrics survey adapted from a survey on ITW treatments used by a variety of professionals (Williams, Gray, et al., 2020) that excluded OT data due to low response rate. Williams' survey was replicated with OTs recruited via the survey sent to AOTA, WFOT, and state OT associations with 54 OT responses.

**METHOD:** Chi square analyses compared interventions use OT compared with other healthcare professionals' responses from Williams, et al. survey. Simple percentages determined the discipline that used a treatment most frequently.

**RESULTS:** Significant differences, p values <0.001 were found indicating OT used more motor control strategies, sensory integration, whole body vibration, biofeedback, and vision training. Significant differences were found for other professionals' use of serial casting, orthotics, stretching, and watch and wait approach.

**CONCLUSION:** OTs training in sensory integration/sensory approaches, reflex integration, and motor control strategies corresponded with differences in treatment approaches and interventions used by OTs compared to other professionals.

**IMPACT STATEMENT:** Findings delineate the role of OT and raise awareness of the need for consistent terminology when describing OT rationale for treating ITW.

### References

- Williams, C., Gray, K., Davies, N., Barkocy, M., Fahey, M., Simmonds, J., Accardo, P., Eastwood, D., & Pacey, V. (2020). Exploring health professionals' understanding of evidence-based treatment for idiopathic toe walking. *Child: Care, Health and Development*, 46. <https://doi.org/10.1111/cch.12745>
- Chu, V., & Anderson, L. (2020). Sensory-processing differences in children with idiopathic toe walking (ITW). *American Journal of Occupational Therapy*, 74. <https://doi.org/10.5014/ajot.2020.74S1-PO3205>
- Williams, C. M., Tinley, P., Curtin, M., & Nielsen, S. (2012). Vibration perception thresholds in children with idiopathic toe walking gait. *Journal of Child Neurology*, 27(8), 1017–1021.
- Pomarino, D., Ramírez Llamas, J., & Pomarino, A. (2016a). Idiopathic toe walking: Tests and family predisposition. *Foot & Ankle Specialist*, 9(4), 301–306. <https://doi.org/10.1177/1938640016630056>