

Effect of Optometric Multisensory Table (OMST) Training on the Eye Movements and Pupillary Responses on a Child with Autism

Naveen K. Yadav¹ MS, Ph. D., FAAO, Bradley Habermehl OD, FCOVD, D'Anne Harp MS
Western University of Health Sciences, College of Optometry, Pomona, California, USA
¹nyadav@westernu.edu

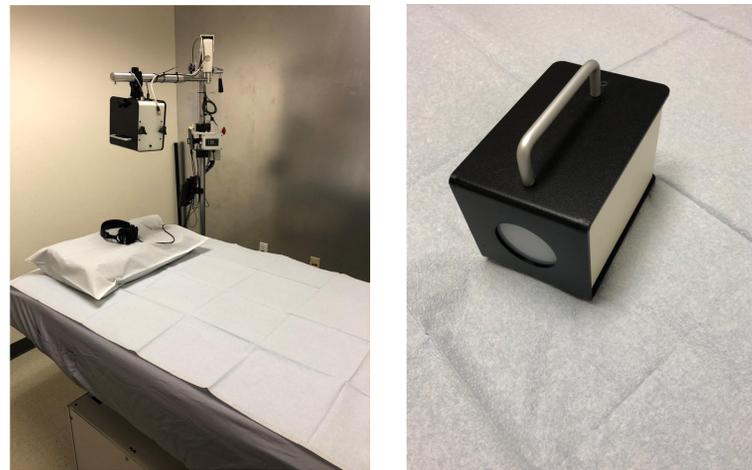
Background

KG is a 10-year-old white Caucasian female, diagnosed with autism at 5 years of age. Chief complaints were motion sickness, attention problems, reading and learning difficulty, and behavioral issues such as anger outbursts due to frustration, low self-esteem, poor communication, and poor eye contact.

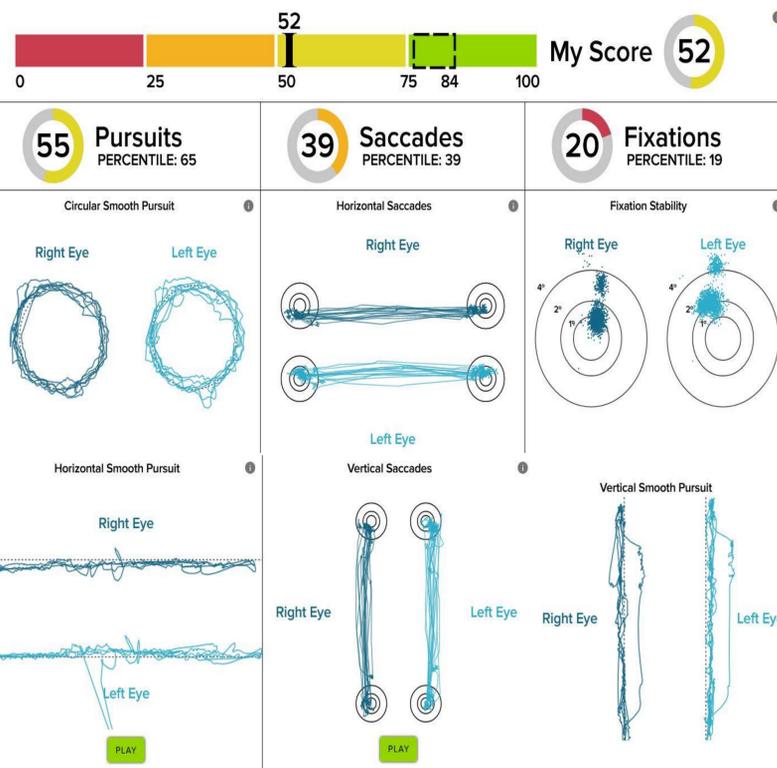
Case Summary

- KG received 12 days of 1-hour in-clinic Optometric Multisensory Table (OMST) training sessions on weekdays, and on weekends KG performed two 20-minute sessions of at-home lightbox color therapy for a total of 160 minutes.
- The clinical OMST method includes Syntonic Optometric Phototherapy (colored light frequencies) together with vestibular, auditory, and somatosensory stimulation (Curtis, 2016, 2017, & 2019).
- After 12 days of in-clinic and at-home therapy, an additional 18 days of at-home lightbox color therapy for 720 minutes was performed. KG's whole treatment was completed in 30 days.
- No other therapeutic intervention was given during OMST and post-OMST treatment.
- Pre-OMST clinical measurements were performed which included eye movement measurements using the RightEye™ System and pupillary responses using the NeuroOptic™ Pupillometer.
- To assess the efficacy of this treatment both clinical measurements were re-tested post-30 and 60 days of therapy.

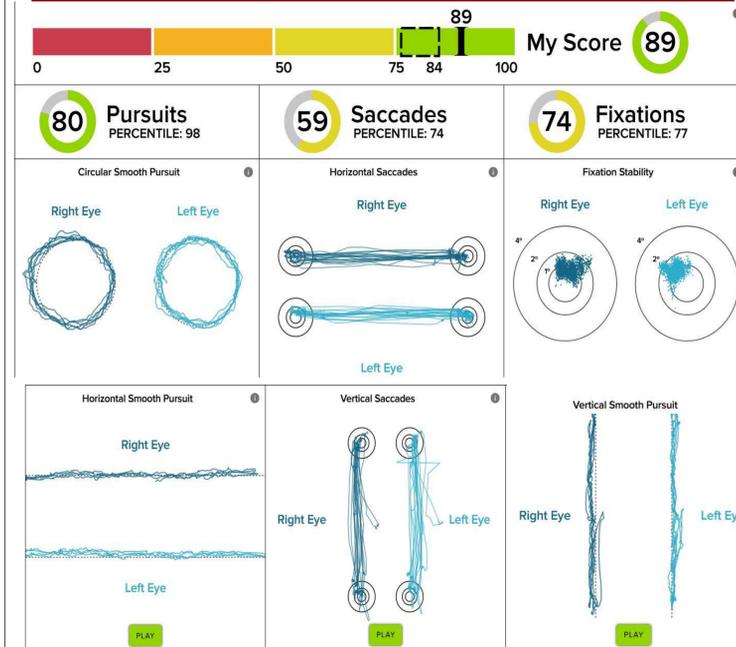
Optometric Multisensory Table (OMST) & At-Home Lightbox



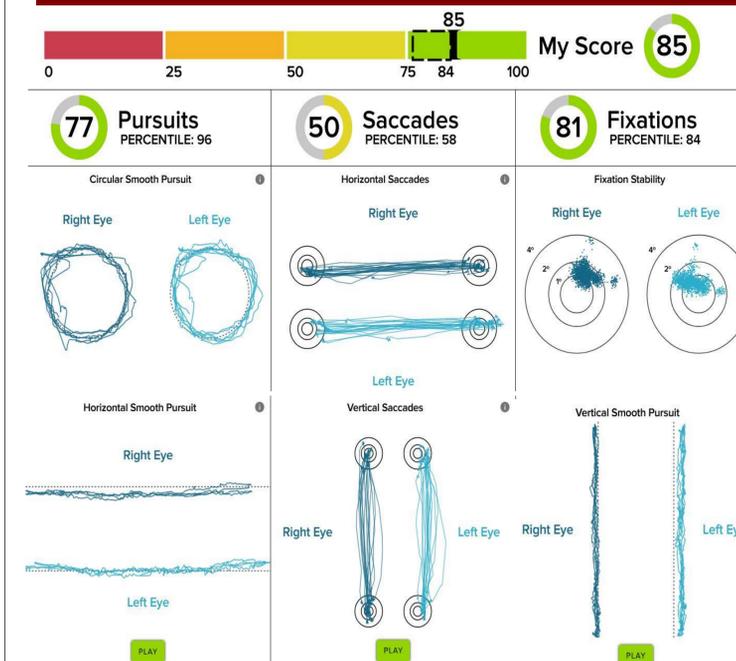
Pre-OMST RightEye™ Findings



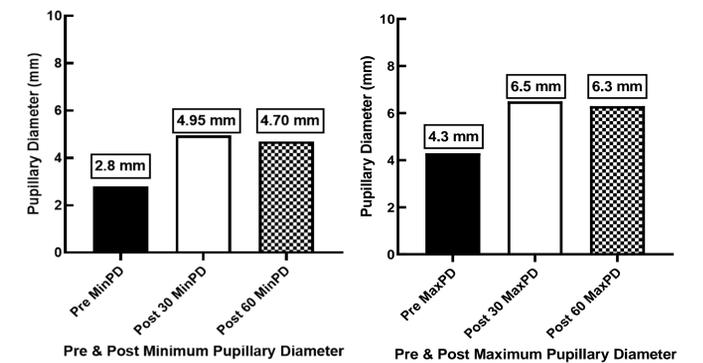
Post-OMST 30 Days RightEye™ Findings



Post-OMST 60 Days RightEye™ Findings



Pre & Post OMST NeuroOptic™ Pupillometer



Conclusions

- Post-30 days of treatment there was a significant improvement in KG's chief complaints: elimination of motion-sickness, improvement in attention, improvement in reading and learning, and improvement in behavioral issues such as decreased anger outbursts.
- Improved self-esteem, improved communication, and better eye contact were observed and reported by the patient's parents.
- These findings are evidence that OMST training could be used to treat autistic patients with these symptoms.
- Clinical objective findings were correlated with the subjective improvement in her symptoms.

Bibliography

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- Curtis S. Neuro-Optometric Rehabilitation Accelerates Post-Concussion Syndrome Recovery in a Professional Athlete - A Case Report Presenting a New Paradigm. *Vision Development & Rehabilitation* 2017;3:167-178.
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Acknowledgement

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