The Evidence for Vision Therapy

Vision Therapy or Vision Training is a therapeutic approach program of activities incorporating the use of lenses, prisms, and filters. It is used as part of the treatment for a range of vision disorders such as convergence problems, accommodation dysfunction, lazy eye and oculomotor disorders. In our practice, the majority of vision therapy conducted is for accommodation dysfunction and convergence problems, otherwise known as focussing and eye-teaming difficulties.

These visual dysfunctions require specific tests to identify them, as they are often not related to eye defects such as sight problems or lazy eye. You can have perfect sight or read “20/20”, and still have other vision problems requiring treatment. The symptoms are not always obvious, and require that the right questions are asked during an assessment.

Is Vision Therapy Evidence Based?

Vision therapy is grounded in sound vision science principles and a long history of published data supporting its efficacy. The past decade has seen vision therapy research receive funding from the US government’s National Eye Institute. The results of this research have appeared in well-respected medical and optometry research journals. It involved the collaboration of optometrists, medicine and organisations such as the respected Mayo Clinic. These studies were very carefully designed and have been the subject of positive Cochrane System Reviews. This means that they are considered “gold standard” research studies.

Published scepticism on vision therapy has a long history of providing strong opinions about vision therapy without actually reviewing much of the vision therapy research. Rebuttals highlight that these reviews are little more than organised opinion pieces
rather than proper reviews. Dr Leonard Press, an optometrist with decades of both clinical and research experience, has provided a detailed rebuttal on one of the more recent published scepticism on vision therapy. 


Why Are Visual Dysfunctions Important to Treat?

Visual dysfunctions can interfere with comfortable and efficient near work such as reading and writing, by reducing the available concentration and attention. Basically, a visual dysfunction forces someone to expend additional effort to control the vision problem, which naturally interferes with available concentration for other work.

Common Symptoms

More overt symptoms include double vision, blur, headaches and eye-strain. Other symptoms are common but less obvious, and include:

- Loss of place with reading (sometimes called tracking problems)
- Re-reading for comprehension
- Losing concentration while reading
- Trouble remembering what is read

Recent clinical trials show an association of adverse academic behaviours with convergence insufficiency, which are reduced when successfully treated with vision therapy. These behaviours include:

- Difficulty completing homework and assignments
- Avoidance of tasks requiring near work
- Poor attention to detail or careless mistakes
- Reduced attention and distractibility
These behaviours describe how visual dysfunctions may be an additional burden to a child and it would seem reasonable to correct these visual dysfunctions regardless of the child’s ability.

**Are Some Therapies More Successful Than Others?**

The type of vision therapy performed has a lot to do with successful outcomes. In the case of convergence insufficiency and accommodation dysfunction, research clearly demonstrates that office-based vision therapy programs have a much higher success rate than computer based home programs or simple eye exercises.

**Vision Therapy, Learning and Dyslexia**

It may be necessary to treat a child with dyslexia in order to remediate a vision problem. Sometimes, but certainly not always this might involve vision therapy. The optometrist’s role is not to identify or treat the dyslexia. The optometrist has a role to play in identifying visual dysfunctions that occur in both typical readers and those with dyslexia. The optometrist also has a role to identify vision problems that often result in the same symptoms that cause people to suspect reading difficulties.

Visual dysfunctions can occur in people across a wide variety of reading abilities, but seem to occur more often in populations identified with ADHD, ADHD-like behaviours and reading disability. It is important to make the distinction that visual dysfunctions have not been proven to cause reading disability or dyslexia. However, for people with a reading disability or dyslexia, they can provide an additional burden to those already struggling. As already highlighted, visual dysfunction can create additional visual discomfort and concentration loss – this impact ranges from mild to significant depending on the individual and the severity of the problem. Surely people with dyslexia have the same rights as everyone else to have those vision problems resolved?
References

For a review on the literature supporting the use of vision therapy for visual dysfunctions, visit:

http://www.visionhelp.com/vh_resources_03.html

Available as free download (link below)

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2888729/?tool=pubmed

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2916019/?tool=pubmed

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3134155/

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1772876/?tool=pubmed

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2782898/?tool=pubmed

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2759605/?tool=pubmed

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2779473/?tool=pubmed

   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2821445/?tool=pubmed

References (not available for free)

Scheiman M, Gwiazda J, Li T. Non-surgical interventions for convergence insufficiency.
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December 2016


For a comprehensive list of vision therapy research visit: