



Visual processing difficulties assessment in children in Warrington, Widnes and Halton.

Understanding the problem

Having a treatable condition that leads to poor literacy can have a staggering effect on a child's self-confidence. Having the intellect to succeed and yet not having the equipment (meaning the correct eye alignment or ability to correctly move the eyes or perceive the information) to put that intellect onto paper, is frustrating for any child, parent and teacher. Orthoptists are uniquely placed to provide visual processing skill advice in relation to reading. We are able to highlight the importance of binocular coordination in reading skills with fluid and accurate eye movements and adequate visual processing skills being a foundation for reading skill acquisition. We are also well placed to offer advice to teachers in how to aid students who are struggling with the various aspects of day to day life in school in relation to their visual processing skills.

- 80% of children struggling with reading and writing showed poor binocular vision, poor tracking and poor eye movement control (Northway 2005)
- 80% of children with visual symptoms associated with reading have problems that Orthoptists can treat. (Fowler 2002)
- Of children who performed poorly (and below teacher's expectations) in their SATs, 60% had defective binocular vision. Only 20% of the high achievers had abnormal BV (Shayler 2003).

Aims and Objectives

- To provide a full assessment of visual processing skills for children reaching the screening criteria across Warrington and Halton Hospital catchment areas (and occasionally beyond).
- Assessments to be carried out with the knowledge and co-operation of the teachers, SENCOs and the parents to implement a series of exercises at home and schools to help compensate for any difficulties found with recommendations from the orthoptist.

Method and approach

- Children are referred in to the Orthoptic visual Processing Difficulties clinic by teachers, SENCOs, doctors and other health care professionals via a screening tool to ensure we are seeing the correct type of reading/learning problems. These are mostly mainstream children with specific learning difficulties.
- Teachers are able to use the screening tool to identify children that will benefit from assessment. Research shows that this could be as high as 80% of children who are struggling with reading in every year group.
- In our population catchment area of 336 thousand people we receive an average of 33 new referrals per month. Of these children, because of our screening tool only a very small percentage require no treatment. We tailor our assessment to each individual case depending on symptoms/difficulties.

- Effectiveness is measured by regular audit of the visual intervention and outcomes and parental and teacher experience.

Results and evaluation

- Recent audit shows 100% parents find the service excellent or good
- 100% of parents are likely to recommend the service
- 88% of parents noticed an improvement in reading following intervention
- 90% of teachers would recommend our service
- 75-88% of teachers felt that our Orthoptic interventions improved a child's school work (depending on the type of intervention)
- "Wonderful service, found my child greatly improved. A far happier child, happy to learn. Got school listening to our problem. Our child has really switched back to learning. Thank you."

Key learning points

Direct discussion and engagement with teachers, SENCOs and other health care professionals was vital. Speaking to schools, inclusion and education teams enabled information about the service to grow.

Communication to parents and teachers about visual interventions and recommendations were essential for their support.

Appropriately trained specialist orthoptists with advanced skills and knowledge to assess children with visual processing skill difficulties across the UK supported by the British and Irish Orthoptic Society.

Diagnosing and treating visual processing difficulties, providing information for teachers on how to spot children with visual processing difficulties and enabling Orthoptists to specialise in these areas all contribute to greater understanding of reading difficulties.

Plans for Spread

- Research is planned looking into visual perception skills and learning and the interventions to help
- Training of Orthoptists who wish to specialise in this area including shadowing and courses are available
- Dissemination across the education sector to highlight the role of the orthoptist in giving every child a healthy start.

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