Guidance for eye care professionals on publicity concerning dyslexia, visual stress, and related conditions

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Dyslexia has a multifactorial aetiology. There is strong evidence that a major causal factor in dyslexia is a deficit of phonological awareness, which is not amenable to optometric treatment. Indeed, the main validated treatment for dyslexia is specialist teaching. Some dyslexic individuals have co-occurring visual problems, and in these cases eye care practitioners (ECPs) may help by managing the visual problem(s). It is not within the core competence of an optometrist to make a diagnosis of specific learning difficulty such as dyslexia. The ECP's role in these cases is as one member of a multi-disciplinary team and practice publicity needs to reflect this role.

ECPs often encounter patients whose parents attribute marked improvements in reading to optometric interventions. These cases are gratifying, but of course are anecdotal and should not lead ECPs to make general claims based on these anecdotes. This document provides advice on publicity for ECPs to help them navigate a path through the interdisciplinary landscape, respecting boundaries between the various professionals who work in this field.

The advice in this document is not meant to be prescriptive and the evidence-base on visual factors affecting reading is open to different interpretations.[1-4] The last row in the table highlights this point. In common with other healthcare professions there are many optometric interventions for which the evidence base is not strong and for which there is a diversity of opinions on effectiveness. Coloured filters for visual stress are one of these interventions. It is therefore recommended that eye care practitioners and their teams are candid in publicity and explanations to patients and acknowledge any controversy. Sufficient information should be provided to ensure that patients can make an informed decision as to whether to proceed with any recommended intervention. This information should be balanced and presented in a way that can be easily understood. GOC Standard 16.6 requires advertising to avoid misleading or confusing statements.

Topic	Explanation	Examples of statements considered reasonable	Examples of statements that may be considered misleading
Causes of dyslexia or reading difficulties	Many factors can contribute to dyslexic difficulties, and the main causal factor is believed to be a phonological deficit. This is unlikely to respond to visual treatments. Therefore, if an ECP discovers a visual problem in a dyslexic person, they are unlikely to 'cure' dyslexia.	We treat visual problems that can co-occur with dyslexia.	We treat dyslexia. Describing visual interventions as dyslexia treatment, or treatment for dyslexia.
Testing for dyslexia	Dyslexia is diagnosed by certified specialist teachers/assessors or educational psychologists specialising in SpLD registered with the Health Care Practitioners Council (HCPC). ECPs are not qualified to diagnose dyslexia.	We test for visual problems that may affect reading. Book an appointment for a special investigation of visual problems relevant to reading.	Book a dyslexia appointment. Book a dyslexia test. Book a dyslexia and vision assessment. We run a dyslexia clinic. We test for dyslexia glasses.

			We provide a coloured overlay assessment for specific learning difficulties.
Visual dyslexia	The term “visual dyslexia” has been used variously with completely different meanings. The term has no specific meaning and could lead the public to think that there is a particular type of dyslexia that ECPs treat. There is no good evidence for such a view.	Some people with dyslexia have visual problems.	We specialise in visual dyslexia. We treat visual dyslexia. Anything that mentions “visual dyslexia”. We are dyslexia-specialist opticians.
Treating dyslexia	ECPs often measure reading with the Wilkins Rate of Reading Test (WRRT), which was designed to assess visual factors that may influence reading and to be relatively unaffected by reading skill. Education professionals measure reading ability with standardised tests designed to assess underlying reading skills, including decoding, comprehension and accuracy as well as reading rate, using passages of text requiring understanding.	If children have visual problems, treatment of these problems can help the child to read more comfortably and may improve their perception of text. This may help them to benefit from teaching and contribute to	Treatment of visual problems (e.g., spectacles, vision therapy, coloured filters) will improve reading or reading age. Coloured filters treat dyslexia. Spectacles treat dyslexia. Vision therapy treats dyslexia.

	The WRRT uses nonsense text but is useful for ECPs to assess the effect of optometric interventions. It is not designed to predict changes in educational tests of reading performance.	an improvement in reading performance.	
Colour & treating dyslexia	Coloured filters alleviate visual stress. The best estimate is that visual stress affects fewer than one in five people with dyslexia. The number of dyslexic children who benefit from other optometric interventions (e.g., bifocals, prisms, vision therapy) is likely to be even smaller.	We may prescribe glasses in cases where a visual problem is present. Coloured glasses may alleviate visual stress. Fewer than one in five people with dyslexia may have visual stress and find coloured glasses helpful.	Glasses treat dyslexia. Anything that mentions “dyslexia glasses” or “dyslexia overlays/lenses”. Claims that a higher proportion than 1 in 5 dyslexics may be helped by colour.
Visual symptoms	Research indicates visual symptoms are more common in dyslexia, but only affect a minority of children with dyslexia. Therefore, when visual symptoms are present these do not indicate that a person has dyslexia.	We treat visual symptoms. Visual symptoms are sometimes associated with dyslexia.	Anything that mentions “dyslexia symptoms”. Giving the impression that visual symptoms indicate dyslexia is present.

			Claims that a high proportion of individuals with dyslexia will benefit from treatments offered by ECPs.
Role of visual factors in dyslexia	Although visual factors are thought to contribute to some cases of reading difficulty, the relative contribution of visual stress & binocular instability compared with other factors (e.g., phonological deficit, verbal short-term/working memory, rapid autonomised naming, magnocellular deficit) is poorly understood.	Visual stress or binocular instability can both be a factor contributing to a child's reading difficulties.	Visual stress (or other visual conditions) is "the main cause" or "a major cause" of reading difficulties or dyslexia.
Controversy	There are scientists and ECPs who support the assertions in this and the next column. There are also scientists and ECPs who do not endorse the existence of visual stress and believe the benefits from colour filters are attributable to placebo effects.	The existence of visual stress and its treatment with coloured filters remains controversial due to a mixed body of evidence.	Coloured filters are proven as a treatment for visual stress. Coloured lenses (or overlays) are scientifically proven.

ECP, eye care practitioner; WRRT, Wilkins Rate of Reading Test

References

1 Evans, B. J. W. & Allen, P. M. A systematic review of controlled trials on visual stress using Intuitive Overlays or the Intuitive Colorimeter. *Journal of Optometry* **9**, 205-218 (2016).

2 Evans, B. J. W., Allen, P. M. & Wilkins, A. J. A Delphi study to develop practical diagnostic guidelines for visual stress (pattern-related visual stress). *Journal of Optometry* **10**, 161-168 (2017).

3 Griffiths, P. G., Taylor, R. H., Henderson, L. M. & Barrett, B. T. The effect of coloured overlays and lenses on reading: a systematic review of the literature. *Ophthalmic and Physiological Optics* **36**, 519-544, doi:10.1111/opo.12316 (2016).

4 Wilkins, A. J. & Evans, B. J. W. *Vision, Reading Difficulties, and Visual Stress*. (Springer Nature, 2022 (in press)).