

GUEST EDITORIAL

The Still Neglected Hyperope

About 30 years ago, Ted Grosvenor wrote an article—"The Neglected Hyperope"—for the predecessor of this journal.¹ Its title reveals its message: with respect to refractive deviations, the eye care professions are much more interested in myopia than hyperopia. Things haven't changed much since then, but the survey article that appears in this issue may hint at some action.² The article by Lyons et al.² does not offer any startling revelations, but at least it indicates that though hyperopes remain neglected, at least they are not completely forgotten.

The survey article shows clearly that eye care professionals, in large part, continue to make treatment decisions about hyperopes on the basis of philosophy rather than on defined clinical criteria; although there appears to be a trend influenced by age, both optometrists and ophthalmologists have very mixed opinions about the degree of hyperopia that warrants correction with spectacles or contact lenses, except in those cases where binocular dysfunction enters into the picture. True, one might be inclined to excuse this situation because the incidence of high hyperopia is not great. But the circumstances are not much different when we look at the management of children with very moderate degrees of hyperopia. Here again, philosophy seems to govern treatment decisions.

Case in point: about a year ago, I conducted an informal study to determine what optometrists would recommend for an asymptomatic, 7-year-old, +1.00 D hyperopic child (Harry) who had never worn glasses, and what they would recommend for a 7-year-old, -0.50 D myopic child (Martin) who had been wearing -1.50 D spheres without complaint for the past year (prescribed elsewhere). I prepared a short case summary about each child, acknowledged its brevity, and emailed the hyperopic child's (Harry) scenario to more than 200 practicing Texas optometrists and the myopic child's (Martin) scenario to a similar number of Texas optometrists. Included in both case summaries was the fact that both children were having "some difficulty" in school and parents were interested in ruling out vision as a contributing factor.

One hundred and eighty one legible responses were received: 107 pertained to Harry and 74 to Martin. Among Harry's optometrists, 78 (about 73%) stated they would prescribe compensatory lenses for the boy (+1.00 D spheres, OU), the remaining 29 optometrists (about 27%) said that they would not prescribe glasses at this time. In Martin's case, almost all of the optometrists (71, or about 96%) recommended a reduction in lens power; only three elected to leave things as they were. Clearly, the optometrists participating in this study were much more in agreement about how best to manage overcorrected myopes than they were in cases like Harry's.

I then changed one condition for each patient. I asked the optometrists who had recommended new lenses for Martin and first

glasses for Harry whether they would make the same recommendation if they had been advised that their patient was not having any difficulty in school and that the only reason for the child's visit was a "routine checkup."

Seventy one of Harry's optometrists and 61 of Martin's responded. A substantial number of Harry's optometrists changed their recommendation. Only 23 (32%) of those responding indicated that they still would recommend glasses (Rx OU: +1.00 D sphere), while the remaining 48 (68%) stated that, given satisfactory school performance and no asthenopic symptoms, they would not recommend glasses for the boy. Martin's optometrists, in contrast, were resolute. Of those responding, 59 (almost 97%) indicated that they still would suggest a lens change—a 1.00 D reduction in lens power—and two changed their mind; given the news that Martin was not having trouble in school, they opted not to recommend a lens change at this time.

These data show that the optometrists participating in this study—and whom we can reasonably assume are representative of most U.S. optometrists—are in much closer agreement about what to recommend for the young, overcorrected myope than they are about the young, undercorrected hyperope, even though the demand upon extra accommodation required to obtain clear vision is the same in both instances. What the data do not show, but may imply, is why these differences exist.

Why did just about all of Martin's optometrists recommend a reduction in minus power regardless of school performance and the fact that the patient is not experiencing asthenopic symptoms, while Harry's optometrists are not nearly in so close agreement? And why were Harry's optometrists so strongly influenced by the revelation that the child was not having difficulty in school? Several speculative explanations come to mind.

Perhaps optometrists believe that there is a closer cause-effect connection between having to exert an extra diopter of accommodation and school performance among young myopes than there is among young hyperopes. I know of no scientific evidence to support that position. Or perhaps Martin's optometrists chose to reduce the power of his lenses even though he was asymptomatic, doing well at school, and very willing to wear his current lenses, because they were concerned about stimulating progressive myopia. Although some may debate that opinion, it is difficult to support it strongly with available research. Or perhaps Martin has been wearing and will continue to wear glasses, and although he will not see better with his new lenses than he does with those he is currently using, he will still see better with his new glasses than without them. Harry, on the other hand, has never worn glasses, and if he does obtain them, they will not improve his already good eyesight. This means that Harry's optometrists will have to do a lot

more explaining than will Martin's. Perhaps then (I vote for this one) the reason for the difference in treatment recommendations between Martin and Harry's optometrists stems from pragmatic factors; the lay person has a difficult time understanding why a child with good eyesight might need glasses, especially after a school nurse and/or pediatrician has assured them that the child's eyes are "OK." It takes time to explain this paradox to an uninformed parent (especially in the absence of valid research-based evidence), and time is an important consideration in a busy practice. This also helps explain why so many of Harry's optometrists changed their mind—why they decided not to recommend glasses—after being advised that Harry was not having trouble in school.

It's time that our profession took a serious, thorough look at the possible long-term effects of ignoring moderate hyperopia in asymptomatic young children. Granted, it is not a sight-threatening condition, but the current emphasis on academic achievement ("no child will be left behind") takes the question out of the trivial category, especially because there is some evidence, beyond individual clinician's "philosophies," that points to a link between moderate hyperopia, perceptual skills development, and school performance.³⁻⁵ I and certainly many others in our profession believe that it is not unreasonable to speculate that the exquisite inter-relationship between accommodation and vergence, if not synchronous, might very well hamper a child's central information

processing skills. Our treatment decisions regarding the management of hyperopia (regardless of the degree of the ametropia) should not be based on economic factors or on philosophies that have no scientific basis. It is time for serious investigation.

Jerome Rosner, OD
University of Houston
College of Optometry
Houston, Texas

References

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