EDITORIAL

An Open Letter to David K Wallace, MD, MPH
(and other disbelievers and holders of outdated and biased opinions and beliefs)

Dominick M. Maino, OD, MEd, FAAO, FCOVD-A
Editor

Dear Dr. Wallace,

I recently read your editorial[1] in the Archives of Ophthalmology concerning the paper by the Convergence Insufficiency Treatment Trial Study Group entitled, *Randomized clinical trial of treatments for symptomatic convergence insufficiency in children*.[2] At the very beginning of your editorial you noted that the typical symptoms associated with convergence insufficiency (CI) include "*difficulty with reading, eye strain or discomfort with near work (asthenopia) and headache*."

Optometrists have for decades noted how learning related eye and vision problems can affect various academic areas such as reading. Many of our ophthalmological colleagues however, have claimed and continue to claim that the eyes have little to do with reading. I want to thank you for your support in acknowledging that *how the vision system functions* can have a significant and adverse impact on reading.

I also want to thank you for stating that, "*Older adults in particular may have concurrent accommodative insufficiency.*" Since optometrists often take a life-cycle-approach to patient care, we know that even adults can have significant binocular vision problems that affect their quality of life.[3] These binocular vision problems frequently require appropriate diagnosis and treatment as well.

Correspondence regarding this editorial should be emailed to dmaino@ico.edu or sent to Dominick M. Maino, OD, MEd, Illinois College of Optometry, 3241 S. Michigan Ave., Chicago, IL 60616. *OVD is indexed in the Directory of Open Access Journals. Online access is available at http://www.covd.org.*

Maino D. An Open Letter to David K Wallace, MD, MPH (and other disbelievers and holders of outdated and biased opinions and beliefs). Optom Vis Dev 2008;39(4):178-180.

Unfortunately, you then go on to write, "*Not all patients with convergence insufficiency are symptomatic, and for those patients treatment is generally unnecessary.*" If a patient with retinal detachment is asymptomatic do you withhold treatment? Are you saying that you only treat patients if they are symptomatic? I hope not.

Treatments offered by optometrists are often conducted to *prevent* problems, *remediate* existing anomalies, and/or for *enhancement* of current visual abilities. I must respectfully disagree with your statement. Treating asymptomatic CI may be just as appropriate as treating a CI patient with symptoms especially if you are concerned with the prevention of future problems.

You go on to note that, "*Ophthalmologists and orthoptists typically use a stepwise approach to treating convergence insufficiency.…*" Although this appears to be changing, I find that few of our ophthalmological (and optometric) colleagues diagnose, yet alone treat CI. We need to improve the frequency that the diagnosis and management of binocular vision problems occurs within both professions. Unfortunately, if our colleagues do recommend out of office therapy for their patients, it tends to be half-hearted in nature with a "Here, do this and see me in a year" approach.

The "step-wise" approach you support using pencil push ups and other out-of-office therapy that most of your colleagues utilize has now been shown **not** to be the best treatment option for our patients. Not only that, but when you then take your step-wise treatment options to the next level, (such as prescribing prism to improve fusional vergence), you should know that many of these approaches do not appear to be any more effective than placebo treatments. In fact, another randomized, placebo controlled clinical trial has shown that base-in prism reading glasses were found to be no more effective in alleviating symptoms, improving the near point of

convergence, or improving positive fusional vergence at near than placebo reading glasses for the treatment of children with convergence insufficiency.[4]

I find your next statement most interesting (and curious) as well. You write that, "*Many patients stop doing these* [out-of-office] *treatments on their own when their symptoms improve to a point at which they no longer have difficulty with reading or when they find that treatment is more inconvenient than their symptoms.*" As you probably know, patient compliance is always an issue. Studies have shown that patient non-compliance causes many deaths annually in the US, leads to a high percentage of hospital and nursing home admissions, and is becoming an international epidemic.[5] Your noted high rate of non-compliance for recommended out-of-office vision therapy is yet one more reason to conduct in-office optometric vision therapy for those with CI.

After all that you've written in support of the strengths of the research conducted by the CITT group; with the easily accessible studies that show a high rate of non-compliance by our patients; and with clinical trials demonstrating that your secondary approach to patient care for CI just does not work for patients; I am amazed that you wrote, "*In my experience, these home-based therapies are sufficient for most patients with convergence insufficiency…*"

For years your colleagues have criticized optometry for using such phrases as "*I believe…, I think…, In my experience…*" any time we tried to express support for optometric vision therapy. Now, it is time for optometry to say to you and your colleagues, it is time to accept the findings of the clinical trials in this area, as well as all the other supportive research, clinical case studies and other literature that supports optometric vision therapy.[6,7]

Near the end of your editorial you go on to state, "*… this study addressed 2 key questions. Is office based vergence/accommodative therapy effective relative to a placebo?* [and] *How does office-based treatment compare with home-based treatments?*" You then give the answer of YES to the first question.

You agree that office-based optometric vision therapy is effective. It not only eliminates or diminishes symptoms but also improves clinical measures of near point of convergence and positive fusional vergence. This means that not only is a patient's quality of life improved, but objective clinical data related to the near point of convergence and positive fusional vergence also improve. Your answer to the second question waffled. You believe that the answer wasn't clear. However, the data of this study clearly, definitely and without question showed in-office-therapy to be the number one treatment of choice for CI. No ifs. No buts. No maybes.

You said that, "*I do not think that either of the home-based treatments used in this study provided an ideal comparison group.*" (Please refer to an earlier paragraph I wrote in this editorial about phrases using words such as "I think…"). The out-of-office therapy chosen for this clinical trial included therapeutic techniques routinely used by optometrists and ophthalmologists. The procedures chosen were agreed to by all (OD and MD) who participated in and who designed this study. While I agree it would have been nice to have an "ideal" home group, the home group chosen was as "ideal" as could be reasonably designed.

The final question you raised was one of cost-effectiveness. I agree that, as physicians we should choose the most cost-effective treatment option available for our patients. So my questions to you are:

1. Is it cost-effective to recommend a home-based treatment that has been shown to be not as effective as an office-based treatment?
2. Is it cost-effective to have our patients spend money on a treatment that often results in non-compliance by our patients?

The bottom line on cost-effectiveness is: Do you ask your patients to participate in therapy that is not optimal and with a high likelihood of non-compliance… or do you prescribe therapy that not only has a high success rate but also has a high probability of completion by the patient? I would recommend the latter and not the former to my patients. What would you recommend?

The number of evidenced based studies supporting the treatment of binocular vision problems continues to increase. We now have available to us, at the very least, Level I evidence (evidence obtained from at least one properly designed randomized controlled trial) and Level III evidence (descriptive studies, or reports of expert committees) that support an optometric approach to the diagnosis and treatment of binocular vision dysfunctions.[5]

And finally, Dr. Wallace (and all others who might be disbelievers and holders of outdated and biased opinions and beliefs)… it is now time to let go of your old, obsolete, and prejudiced feelings, opinions and beliefs. The evidence is here. Accept it. Embrace

it. Use it to improve the quality of life for your patients. Let's work together. Let's use the science available to advance, enhance and improve the lives of our patients.

And most importantly, optometric vision therapy… or as Dr. Wallace noted "intensive orthoptics" … should be a part of the routine practice of your office. A recent 1-year clinical trial determined that the prevalence of binocular vision dysfunction in a non-presbyopic population of 1679 subjects found 56% of the subjects presented symptoms related to binocular vision problems.[8] Many of these patients will require treatment. This treatment program should have a high rate of success and be cost-effective. This treatment program should take place in-office under the supervision of an optometrist or ophthalmologist. This treatment program is supported by research and is available now to any who want to learn how to utilize it in their offices.

Dr. Wallace, for the most part we tend to agree more than disagree on the basics about this research. This study was well done. This study, as you state, "… provided us with valuable data on success rates of… treatments for patients with… convergence insufficiency..." Now let us join together to tell our colleagues that the time is now to provide this therapy for our patients.

Optometric Vision Therapy.[a] Do it.

References

1. Wallace D. Treatment options for symptomatic convergence insufficiency. Arch Ophthalmol. 2008:126 (10);1455-56.
2. Convergence Insufficiency Treatment Trial Study Group. Randomized clinical trial of treatments for symptomatic convergence insufficiency in children. Arch Ophthalmol. 2008:126(10);1336-49.
3. Jorge J, de Almeida JB, Parafita MA. Binocular vision changes in university students: a 3-year longitudinal study. Optom Vis Sci. 2008 Oct;85(10):E999-E1006
4. Scheiman M, Cotter S, Rouse M, Mitchell GL, Kulp M, Cooper J, Borsting E; Convergence Insufficiency Treatment Trial Study Group. Randomized clinical trial of the effectiveness of base-in prism reading glasses versus placebo reading glasses for symptomatic convergence insufficiency in children. Br J Ophthalmol. 2005 Oct;89(10):1318-23.
5. http://www.epill.com/statistics.html (accessed 11-15-08)
6. http://www.covd.org/Portals/0/10b.SummaryofResearchandClinicalStudiesonVT.pdf (accessed 11-15-08)
7. Ciuffreda KJ. The scientific basis for and efficacy of optometric vision therapy in nonstrabismic accommodative and vergence disorders. Optometry. 2002 Dec;73(12):735-62.
8. Montés-Micó, R. Prevalence of general dysfunctions in binocular vision. Annals Ophthalmol. 2001; 33 (3): 205-208

---

a. Learn more about optometric vision therapy by attending the annual meeting of the College of Optometrists in Vision Development. Go to http://www.covd.org/Home/AnnualMeeting/tabid/227/Default.aspx to learn more.