

LETTER TO THE EDITOR

Dear Editor:

As we were researching the literature for a new project, we came upon two papers that were published on symptoms of convergence insufficiency (CI).^{1,2} We thought that the readers of *Optometry & Vision Development* would be interested in this since it refers to the College of Optometrists in Vision Development 30-item checklist (the COVD checklist). The first paper, Borsting et al,¹ compared the symptoms on the Convergence Insufficiency Symptom Survey (CISS) symptom survey of 14 school aged children who were diagnosed as CI. They found that the pooled symptom score for CI subjects was significantly higher than that of those who were considered to exhibit normal binocular vision (NBV). When the scores for the two groups (CI and NBV) were pooled the CI group showed significantly higher symptoms. This was true for both the student and parent evaluation of symptoms ($p < .001$).

White and Major² compared specific symptoms of CI and normal binocular vision, using the same criteria. Ten CI patients were identified from 129 patient charts. The symptoms, however, were scored on the COVD checklist. The COVD checklist was completed by either/both the parent and/or the patient. The researchers were interested in seeing if any of the individual symptoms on the COVD checklist would specifically identify symptoms that were specific to CI. They found two that showed statistically higher means ($p < .05$) for CI (*Blurred vision at near and head tilt or closes one eye when reading*). Two other symptoms approached significance, *avoidance of reading and near work and writing up and down hill*, $p = .06$ and $p = .057$

respectively. They did not however do a pooled score to compare the total score of the CI group with the NBV group. Since they had published the means for each of the items for both groups, we took it upon ourselves to do this analysis.

We found that the mean for the CI group was 1.48 (standard deviation 0.43) and for the NBV group 1.18 (standard deviation 0.47). This calculated to a t score of 3.04 and was significant at $p = .005$ (two tailed t test).

Although the COVD checklist is specific for some of the symptoms of CI but not for others, we conclude from our review of the White and Major data that the pooled COVD checklist score is significantly different for CI when compared to a NBV group. We thought that your readers might like to have this bit of information on the two symptom surveys.

Sincerely,

Richard Hoenes, MA

WC Maples, OD, MS, FAAO, FACBO, FCOVD

References

1. Borsting E, Rouse MW, De Land PN, Cotter S, et al. Prospective comparison of convergence insufficiency and normal binocular children on CIRS symptom survey. *Optom Vis Sci* 1999;74:221-28.
2. White T, Major A. A comparison of subjects with convergence insufficiency and subjects with normal binocular vision using a quality of life questionnaire. *J Behav Optom* 2004;15:37-41.

Dear Dr. Maples and Mr. Hoenes:

Thank you for this review and analysis of the data regarding these studies, your statistics and the COVD checklist and CI Symptom Survey. I am sure that not only will our readership find your information timely, but clinically relevant as well. Editor

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