

# Farsighted children struggle with attention, study finds

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Farsighted preschoolers and kindergartners have a harder time paying attention and that could put them at risk of slipping behind in school, a new study suggests.

An estimated 4 to 14 percent of preschoolers have moderate farsightedness, or hyperopia, but it often goes undetected in younger [children](#). When moderate farsightedness is found, glasses aren't always recommended because there's disagreement about whether [vision](#) correction is appropriate for these children.

But an increasing body of evidence is showing that moderately farsighted 4- and 5-year-olds are at risk of struggling with the building blocks of learning, said Marjean Taylor Kulp, professor of optometry at The Ohio State University.

"We knew from our previous work that preschool and kindergarten children with uncorrected farsightedness have decreased early literacy, and this new study shows that there are even more deficits in these children early on," she said.

In the new study, which appears this month in the journal *Optometry and Vision Science*, Kulp and her collaborators tested children with and without farsightedness to evaluate their [attention](#), visual perception and the ability to integrate visual perception and motor skills.

Tests for visual attention (the ability to zero in on some visual stimuli and ignore others) included looking at a picture, such as a butterfly, and finding the matching pictures in an array of images.

Overall, the children who were moderately farsighted based on results of eye exams performed at the start of the study were significantly more likely to have poorer scores on the attention-related tests.

While some children were able to focus their eyes and adjust for their farsightedness, others who were not able to do this and struggled to see close-up had lower scores on tests of [visual attention](#), [visual perception](#) and visual-motor integration (eye-hand coordination or copying skills).

The study included 244 children with moderate farsightedness and 248 children with normal vision. Most were enrolled in a preschool Head Start programs in Pennsylvania, Ohio or Massachusetts. The researchers accounted for differences in age, sex, parental education status and race.

The Vision In Preschoolers - Hyperopia In Preschoolers study group's previous research found that children with uncorrected farsightedness lose ground on reading skills before they start first grade.

Though this study didn't look specifically at the link between attention and learning, previous research has established that difficulties with attention can stand in the way of greater success in the classroom.

The researchers have applied for funding to do a follow-up study to determine the effect of glasses to correct farsightedness on these deficits. Until that work is complete, it remains unclear whether prescribing glasses to children in this age group will help with the setbacks the researchers have discovered, Kulp said.

In the meantime, Kulp said it's important to recognize that moderate farsightedness has the potential to create hurdles to learning and literacy.

"It's important for us to identify these children and especially identify those who are having learning difficulties because of their vision," she said.

Provided by The Ohio State University

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