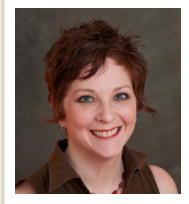


Contact Lens Update

CLINICAL INSIGHTS BASED IN CURRENT RESEARCH

Conference Synopsis: Myopia in China (ARVO 2014)

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As Jake Sivak points out in this issue's editorial, the prevalence of myopia is increasing significantly. Although this phenomenon has been noted in various countries,¹⁻⁸ a number of recent studies have focused on the high prevalence of myopia in Asian countries, including Taiwan,⁹ Singapore,¹⁰ South Korea¹¹ and China.¹²

The 2014 meeting of the Association for Research in Vision and Ophthalmology (ARVO) showcased additional research on the prevalence of myopia in Asia—and China in particular. These studies report similar risks for the development of myopia, including a higher prevalence of myopia in:

- Urban¹³ or higher income¹⁴ communities
- Those with a family history of myopia^{14,15}
- Females^{14,15}
- Those demonstrating higher school performance as measured by math scores,¹⁴ zealous study habits and poor reading posture¹⁵

Seang-Mei Saw (University of Singapore) and colleagues¹³ presented a retrospective meta-analysis of 49 population-based studies performed across Asia. The results included large variations in the prevalence of myopia across Asia, with the highest combined prevalence (47%) in Asians aged 20-29 years living in urban Asian communities.

Zhongqiang Zhou (Sun Yat-sen University, China) and colleagues¹⁴ reported a prevalence of 23% myopia in school children (mean age 10 years) in Shaanxi, a province ranking 14th in China in terms of per capita income — nearly double that calculated for Gansu (at 13%), a neighbouring province ranking 30th for per capita income and with a higher population density. The researchers concluded that socioeconomic status, math score and a family history of spectacle wear were the main predictors of myopia, and noted that the determinants of myopia in China are complex and remain poorly understood.

Yueqiu Gong¹⁵ (Capital Institute of Pediatrics, China) and colleagues reported that the prevalence of myopia in one district of Beijing was higher for girls (39% compared to 35% for boys) and increased with age: 37% in those aged 5-15 and 67% in those aged 11-15. A family history of spectacle wear was also considered a significant risk factor. A variety of study habits were also cited as potential risk factors, including incorrect reading posture, doing homework for more than four hours per day and studying for more than one hour at a time.

Finally, Ian Morgan¹⁶ (Australian National University, Australia and Sun Yat-sen University, China) and colleagues reported the results of a study providing “proof in principal” that increasing the amount of time children spend outdoors can have slow the development of myopia. Out of 12 schools in Guangzhou, some children were given

an additional 45 minutes of outdoor activity, while other schools continued following normal procedures. Over three years, the control group showed a 40% incidence of myopia compared to 30% in the test group spending more time outdoors. The research team acknowledges that the effect size is small, but suggested that myopia control programs should focus on increasing time outdoors regardless, as it may be beneficial.

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