Sir, Importance of vision screening in children regardless of socioeconomic status

Vision screening is important to achieve the full academic potential of children. Preschool and school vision screening is part of government health programmes in many countries but referral criteria may somewhat vary.^{1–4} In this report vision screening was carried out on a selected sample of children from socioeconomically secure families with a high level of parental education at a private school in Rome (Ambrit International). Medical forms were completed by parents and a pediatric assessment of children was performed every year. The ophthalmologist SA carried out screening on children at age 6 and 8. The examination included visual acuity assessment with a standard illuminated decimal chart, cover/uncover testing, the Lang test, and indirect ophthalmoscopy. A total of 380 children were tested from 2001–2011. Higher education was recorded for both parents in 334 families (87.9%) and for one parent in 30 families (7.9%). Any child who did not pass screening with visual acuity ≤ 0.8 was referred to complete ophthalmological examination under cycloplegia. Refractive errors were considered significant with hyperopia > 3 diopters or myopia > 0.5 diopters. The salient result was that a total of 14.5% of children had significant refractive errors but only 6.3% had already received a spectacle correction notwithstanding the high socioeconomic status of the families. Furthermore, 18 of these children with no significant defects at age 6 had visual acuities of ≤ 0.8 at age 8 and received spectacle corrections. At follow up all except three children (one with myopia and two with hyperopia and amblyopia) who had been prescribed glasses presented visual acuities of 1.0 (Table 1). Analysis of the refractive errors showed that while ocular conditions manifesting strabismus and those giving astenopeic symptoms had been cared for, systematic preventive vision

examinations were lacking and 'silent' ametropia had gone unnoticed. It can be concluded that government health programmes for vision screening are essential for all children regardless of socioeconomic status. Furthermore, regular screening during the school years is advisable as vision defects may arise at various stages in childhood and a satisfactory or borderline test should not lead to complacency about the need for further testing.⁵

Conflict of interest

The author declares no conflict of interest.

References

- 1 Health for children (Hall4). *Guidance and Principals of Practice for Professional Staff*. United Kingdom, 2006.
- 2 Hård AL. Results of vision screening of 6-year-olds at school: a population based study with emphasis on screening limits. *Acta Ophthalmol Scand* 2007; **85**: 415–418.
- 3 Castanes MS. Major review: The underutilization of vision screening (for amblyopia, optical anomalies and strabismus) among preschool age children. *Binocul Vis Strabismus Q* 2000; **18**: 217–332.
- 4 American Academy of Ophthalmology. *Pediatric Eye Evaluations, Preferred Practice Patterns*. San Francisco, 2002.
- 5 Tibbenham AD, Peckham CS, Gardiner PA. Vision screening in children tested at 5, 7, 11 and 16 years. *BMJ* 1978; **1**: 1312–1314.

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Table 1 Screening and complete testing results of children at age 6 and 8

Screening age 6		Complete testing		Screening age 8		Complete testing	
No. of children	VA	No. of children	Defect	No. of children	VA	No. of children	Defect
280	1.0		None	271	1.0		
				9	≤ 0.8	7	Myopia
						2	Hyperopia
56	0.9		None	47	1.0		
				9	≤ 0.8	4	Myopia
						5	Hyperopia
18	0.8	7	None	18	1.0	1	Myopia w/g
		1	Myopia			10	Hyperopia w/g
		5	Hyperopia				
		5	Hyperopia w/g				
26	≤ 0.7	3	Myopia	22	1.0		
		3	Myopia w/g	1	0.8	1	Myopia w/g
		4	Hyperopia	3	< 0.7	2	Hyperopia w/g
		16	Hyperopia w/g			1	No testing

Abbreviations: VA, visual acuity; w/g, with glasses.