training programme for the next generation of primary care ophthalmologists. This could share some modules with ophthalmic surgical training, but would concentrate on developing areas such as teaching skills, epidemiology, population based research and management skills to a higher level than is usually attained in ophthalmic surgical training.

It is difficult to guess what effect the impending changes in the way clinical services are commissioned will have on the way ophthalmology is practised in the future. The need for vitreoretinal surgery, treatment for choroidal neovascularisation, neuro-ophthalmology, and other ophthalmic specialist services will continue to exist, but we cannot be sure that they will necessarily happen under the same roof. We do not know for certain whether primary care ophthalmology will take place in hospitals, treatment centres, general practice, optometric practices, or other premises. Are we moving towards a new ''hub and spoke'' concept where ophthalmic primary care becomes the hub and the ophthalmic specialties the spokes?

The breadth and pace of political change might mean that the concepts of ophthalmic primary care are implemented without rehearsal and without the luxury of a safety net, as hospital provision of ophthalmic primary care is scaled down. We may be travelling in the right direction, but it feels like driving without headlights. The challenge for academic ophthalmology will be to find ways of evaluating the effects of change as they occur and disseminating the learning points rapidly.

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Amblyopia

The timing of patching treatment and a child's wellbeing

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Bullying and eye patching

The psychological impact that patching treatment for amblyopia might have on children and their families was highlighted in an influential review of amblyopia screening.[1] A recent randomised trial investigating the efficacy of patching for amblyopia has reported that 4 year old and 5 year old children were significantly more upset by receiving patching and glasses than by receiving glasses only, as were the parents of the 4 year olds undergoing treatment, suggesting that patching treatment can be associated with some short term distress for the child and the family.[2] However, most children in the study were reported as being happy and had normal behavioural scores. We have recently reported results from a birth cohort study suggesting that longer term psychosocial sequelae may be associated with patching treatment (the Avon Longitudinal Study of Parents and Children, ALSPAC[3]). A history of patching treatment and wearing glasses were both independent risk factors for children reporting that they had been bullied in the past at age 8.[4] Repeated bullying victimisation is consistently associated with physical and emotional problems for the victims and may have long term adverse consequences.[5 6]

One argument for preschool screening is that patching treatment is more likely to have concluded before school starts, thus avoiding adverse reactions from peers. We aimed to test this hypothesis by comparing, prospectively, two groups of children: one that had been offered state provided preschool screening for amblyopia (aged 3 years and 1 month) and the other that had not. Both groups had been given a check by the school nurse in the first year of school (aged between 4–5), which if unsatisfactory resulted in a recommendation to see either an optometrist and/or a community orthoptist, after which patching was commenced if needed. The outcome measure was bullying victimisation by age 8 assessed with a structured standard interview.[6] Children were asked whether they had repeatedly (at least four times a month) been the victims of bullying.[4] We calculated the risk (odds ratio, 95% confidence interval) of reporting having been bullied for children who had been treated with patching in each group. For comparison, we calculated the same risk for children who had been given glasses at any time. We hypothesised that as the wearing of glasses usually continues once started, then preschool screening would be unlikely to reduce any risk of bullying associated with wearing glasses.

Usable data on having been bullied were available for 4473 children whose screening history was known and these are shown in table 1. There was an almost 50% reduction in children who reported having been bullied in the group that had been offered preschool screening, compared with the group who had not. By contrast, there was no difference in rates of perceived bullying for children who wore glasses, irrespective of previous screening. These results support the hypothesis that preschool vision screening may be associated with less bullying for children who need to have patching treatment. The specificity of the findings (that is, there was no such effect for children who wore glasses) argues against the results being the result of confounding factors that have not been accounted for, although as the data are observational, this possibility cannot be excluded.

Table 1 The prevalence and odds ratios (95% CI) for reporting being bullied, according to whether or not the child was offered preschool screening

Group	Numbers (%) of children who were bullied in "preschool screening" group (n = 1109)	Numbers (%) of children who were bullied in "no preschool screening" group (n = 3354)	p Value (χ^2)	OR (95% CI)	Adjusted* OR (95% CI)
All children (n = 4473)	375 (33.8)	1200 (35.7)	0.261	0.92 (0.80 to 1.06)	0.92† (0.80–1.06) p = 0.257
Children who were patched (n = 122)	9 (25.7)	41 (47.1)	0.033	0.39 (0.16 to 0.92)	0.39† (0.16–0.92) p = 0.033
Children with glasses (n = 364)	29 (35.4)	118 (41.8)	0.293	0.76 (0.46 to 1.27)	0.74 (0.44–1.24) p = 0.252

*Adjusted for sex, paternal socioeconomic class, highest level of maternal education, type of housing.
†In these analyses none of the other factors were significantly associated with the outcome ($p<0.1$).

Visual outcomes at 7 years of age were not improved with this model of preschool screening[7] and school entry screening is currently recommended in the Hall Report.[8] The data from the recent studies in America indicate that 2 hours of patching can be as effective as 6 hours for moderately severe amblyopia[9] or, alternatively that atropine is also effective and is associated with fewer adverse psychological problems.[10] However, further work is needed to explore whether advising patching treatment out of school hours (in children attending school), or using atropine instead of patching, are effective in reducing bullying. It is possible that parents and children would consider that more than halving the risk of being bullied was a good reason for a child to attend a preschool vision screening appointment, rather than waiting for detection and treatment at school, even if the visual outcome was not changed by the earlier screening.

While the causes of bullying are complex and multifactorial, these data suggest that the timing of intervention can lessen the likelihood of a child who is treated with patching being bullied. This is likely to improve the experience for both the child and their family. Bullying and other psychosocial factors should continue to form part of the outcome assessment for experimental amblyopia screening and treatment programmes and also for clinical audits of patient compliance and satisfaction.

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