

Letters to the editor*

Buying staff not the solution

The letter from Bill Ip in the July 2002 issue of the *Journal* ("Are there enough of us to do the job?") reminds me of the situation in England during the early 1960s, when a shortage of medical and dental personnel in American universities brought recruiters with fat checkbooks across the Atlantic. The result was a brain drain of the best and brightest of Britain's doctors and dentists and a staff shortage in the hospital and university service. To fill the gap, recruiters were sent from Britain to India and other Commonwealth countries to fill the posts with foreign graduates. The net result was an impoverishment in those developing countries, which needed all their medical and dental graduates to supply necessary services to their own people.

Are we to see a repeat of this socially damaging phenomenon? If the United States is short of orthodontists and other essential medical and dental teachers, then the powers that be should arrange for financial assistance to promising local graduates to enable them to pursue specialty training and to encourage them to enter an academic career track. Buying staff from countries that can ill afford to lose them is not the way.

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Different logic might provide new answers

The October editorial, "Research topics—past, present, and future (Am J Orthod Dentofacial Orthop 2002;122:341), reinforces the need for researchers to focus on the important clinical questions rather than on the availability of materials and methods. I agree that new research tools and techniques are essential. However, I also believe that more answers can be extracted from our traditional headfilms. It sounds simplistic, but our profession still has not completely differentiated dental from skeletal malocclusions. It is great to move ahead with new tools, but we cannot forget that some basic questions are still unanswered.

It may be that so far we have not fully assessed the problem with our current tools; instead of changing the material, we need to change the method. In the last year, our research group has worked on a new diagnostic tool for malocclusions, using regular headfilms but improving the interpretation of the data. Our first research paper is almost ready to be submitted. Our goal is to use a different logic—fuzzy logic—to better classify malocclusions. Future steps

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could be growth prediction and evaluation of treatment outcomes. In a few words, we know that, in nature, Class II or III malocclusions are presented in a gradual and smooth range from normality to abnormality. Using classical logic, with strict boundaries and crisp measurements, malocclusions have not been well classified. Fuzzy logic might provide a better understanding of the relationships among craniofacial variables from traditional headfilms. We hope this will lead to better diagnostic tools to achieve better treatment protocols.

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The cervical vertebral maturation method: some need for clarification

Among the different indexes for assessing skeletal maturation in patients, the cervical vertebral maturation (CVM) method has been gaining attention in recent years. It has been used in a number of studies concerning the treatment effects and timing for various orthodontic and orthopedic appliances.¹⁻³ In the "Ask Us" section of the Reader's Forum in the July 2002 issue of the *AJO-DO*, Dr Leonard Fishman replied to the question about the accuracy of the CVM method to evaluate skeletal maturity. Because of its many clinical implications and the limited information that can be gained from Dr Fishman's response (which focused mostly on the hand and wrist method), we believe that further clarification is needed to highlight the characteristics and the potential of the CVM method.

The method is based on the morphological characteristics of the cervical vertebrae at different developmental stages that correlate with different growth rates in facial and somatic structures. The original CVM method^{4,5} comprised 6 stages of development that involved changes in the morphology of the second through sixth vertebrae, as seen in lateral cephalograms. A newly improved CVM method⁶ consists of 5 stages of development in the second through fourth vertebrae. Thus, analysis is possible with the patient wearing a high protective collar.

The reliability and efficiency of a biologic indicator of individual *mandibular* skeletal maturity can be evaluated with respect to several fundamental requirements.⁷

- Efficacy in detecting the peak in mandibular growth. The method should have a definite stage or phase that coincides with the peak in mandibular growth in most subjects. The efficacy of several biologic indicators has been evaluated with regard to the growth spurt in body height. An evaluation of the direct correlation between changes in the biologic indicator and changes in mandibular growth at