

## Letters to the Editor

Dear Sir,

We appreciate the interest shown in our recent paper by the Chairman of the British Orthodontic Society. Mr. Lumsden very properly reminds us that all research is limited by the measurement instruments we have available. There has undoubtedly been controversy about the PAR Index, but we feel justified in the use we have made of it in our paper for the following reasons.

Whatever the shortcomings of the PAR Index, a mean pre-treatment score for the sample of  $22.7 \pm 9.9$  is low in comparison with that found in similar studies elsewhere, e.g. in England and Wales. The Scottish sample also included a substantial proportion of cases with mild malocclusions—e.g. the mildest case had a pre-treatment score of 6 PAR points (which is well below the mean of the post-treatment scores).

Nor did we rely wholly on the PAR Index. The two components of IOTN also suggested that treatment need was lower in this Scottish sample than in similar material from England and Wales.

As we have pointed out repeatedly in recent papers, it is difficult to establish a measurable improvement due to treatment when initial scores are low. For example, a case cannot be categorised as 'Greatly Improved', in PAR terms, unless the pre-treatment PAR score is above 21. Therefore, in order to appreciate the results achieved by specialist orthodontists in Scotland, it is necessary to be aware that the initial scores were generally lower than might be expected in a study of this type.

That said, we concede that the material was gathered during 1993/4 and may not represent the current situation.

Yours faithfully,

W. J. S. KERR  
Professor of Orthodontics,  
University of Glasgow Dental School  
and  
J. H. McCOLL