Commentary

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Throughout time, mankind has recognized the social and psychological significance of the human face, its role in human relations coupled with cultural emphasis on external appearance and physical attractiveness. Teeth are important attributes in the equation of disfigurement and, as such, teeth are sense organs. Moreover, crooked teeth can be straightened with relative ease and indeed the historical record of orthodontic treatment dates to the early scriptures!

Whereas historically, treatment of malocclusion was a privilege of the more affluent members of society, the social revolution in the twentieth century, accelerated during the post-war period, brought rapid change in our mores and cultural environment. Greater affluence, sophistication of lifestyle, liberation of the "self" and focus on body image resulted in a demand for orthodontic treatment by the population at large.

Indices have been developed to determine the handicapping effect of malocclusion and thereby set priority levels for treatment. In addition to estimation of disfigurement, some indices also focus on functional aspects of malocclusion, (i.e. occlusal trauma, as well as dental caries and periodontal disease).

Experience has taught that while indices are capable of separating acceptable occlusions from the more severe forms of malocclusion, they fail to provide a progressive scale of treatment priority for milder aberrations of tooth alignment. Since facial disfigurement is only inferred indirectly by malpositioning of teeth, assessment of treatment priority cannot be made from dental casts alone; the face and dentition must be viewed as a unit. Functional aspects of malocclusion, such as crossbites and dental arch relations, are separate considerations for treatment, although proof is lacking that they are a hazard to the survival of the dentition.

The authors have demonstrated marked differences in priority assignment according to the Occlusal Index and the Index of Orthodontic Treatment Need due to the IOTN's high weighting of crossbites and missing teeth. The authors also signal that indices used by the dental profession may yield a higher treatment priority than self assessment by individuals. Furthermore, they caution that public awareness of treatment need can differ markedly in segments of one population or among different populations, which is of particular significance for an underlying objective of this study, namely to determine treatment need and cost as well as requirements for professional personnel to provide orthodontic care in Hong Kong.

Finally, they recognize that population estimates of treatment need may have some value for administrative screening to set treatment priority levels but cannot be used effectively to determine the indication of treatment for individual children or adults. Evaluation of the psychological sequelae of malocclusion involves consideration of the complex aspects of personality and self image, attitudes, sex and age of patients. Moreover, the severity of disfigurement does not invariably bear a direct proportional relationship of psychic stress owing to the capacity for self adjustment to malocclusion

and facial disfigurement, or the lack of it.

Further studies must be conducted to determine to what extent and under what conditions facial disfigurement is improved by orthodontic treatment before using these epidemiological studies as hard data for policy decisions by governmental agencies. The rule of thumb is that 30 to 40 percent of the young teenage population in Western countries will require orthodontic treatment.