

SCIENTIFIC
SECTION

Comparing a quality of life measure and the Aesthetic Component of the Index of Orthodontic Treatment Need (IOTN) in assessing orthodontic treatment need and concern

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Objective: To compare the use of the Aesthetic Component (AC) of IOTN and the Child Perceptions Questionnaire (CPQ) in assessing orthodontic treatment need and concern.

Design: Cross-sectional observational study

Subjects and methods: The subjects were 204 children aged 10–12 years studying in 10 schools in Bristol, UK. They completed a questionnaire comprising the CPQ and questions regarding orthodontic concern. AC scores as rated by the child and by the calibrated examiner were recorded.

Main outcome measures: CPQ scores were calculated from the responses in the questionnaire. AC scores and responses to questions regarding orthodontic concern were recorded.

Results: The children gave themselves lower AC scores compared to the examiner ($p < 0.001$).

The only section of the CPQ that correlated significantly with Examiner AC was the emotional impacts section ($\rho = 0.151$). CPQ scores had a slightly higher correlation with self-perceived AC than Examiner AC. However, the correlations were still very low. The emotional impacts section of CPQ ($\rho = 0.332$) and overall CPQ score ($\rho = 0.282$) were better than the examiner AC ($\rho = 0.209$) at reflecting how bothered the children were by the alignment of their teeth, and how upset they would be if they couldn't receive orthodontic treatment ($\rho = 0.464, 0.428$ and 0.214 , respectively). Children with a normative need for orthodontic treatment, based on examiner AC did not have a worse oral health-related quality of life.

Conclusion(s): The CPQ and IOTN AC measure different attributes. There should be a shift towards using quality of life measures to supplement the IOTN in assessing the perceived need for orthodontic treatment.

Key words: Aesthetic component, child perceptions questionnaire, IOTN, Quality of life

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Introduction

Malocclusion and the index of orthodontic treatment need

Orthodontic treatment need is currently measured in the UK, mostly using the Index of Orthodontic Treatment Need (IOTN), which consists of the Dental Health Component (IOTN DHC) and the Aesthetic Component (IOTN AC).^{1,2}

The IOTN AC, being a clinician-based measure, has its limitations because it measures normative need,

rather than perceived need. This has been addressed to a degree by getting the patient to self-rate their IOTN AC.

Nevertheless, traditional (clinical) indices do not give any information on how malocclusion impacts on a patient's quality of life in terms of limited function and psychosocial well-being. As a result, indicators need to be developed further for use in orthodontics to be used in conjunction with the IOTN.³ Recently there has been increasing interest in the use of such indicators in dentistry, in the form of oral health-related quality of life (OHRqoL) measures.⁴

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