

Orthodontic treatment need in 5,112 Malaysian children using the IOTN and DAI indices

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Abstract:

OBJECTIVE: To assess the prevalence and severity of malocclusion in a large sample of 12-13-year-old children and to compare assessments of treatment need according to three methods.

DESIGN: A random sample of 5,112 Malaysian children was drawn according to a multi-stage technique which accounted for the ethnic composition of the population. Subjects were examined using both components of the Index of Orthodontic Treatment Need (IOTN) and the Dental Aesthetic Index (DAI). **RESULTS:** The proportion of children in need of orthodontic treatment was 47.9% according to grades 4 and 5 of the dental health component (DHC) of IOTN and 22.8% according to grades 8-10 of the aesthetic component (AC). Using 32 points as the cut-off point for treatment acceptance, the DAI index indicated that 24.1% needed treatment.

CONCLUSIONS: The IOTN index was found to be efficient and fair in identifying children who required orthodontic treatment. The best results appeared to be produced by using DHC grades 4 and 5 in association with AC photographs 6-10. This combination indicated 30% of children as being in need of treatment.