

## **Evaluation of occlusion and orthodontic needs of thirteen-year-old children from Podlaskie voivodeship**

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### **ABSTRACT**

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**Purpose:** One of the main research aims of epidemiological studies is to prove the prevalence of diseases and physiological conditions among people. The results of these studies enable to implement efficient prophylaxis and to plan proper health care management. Information about the prevalence of malocclusions in children and adolescents is a very important aspect of the planning of preventive care in health policy. In addition, evaluation of malocclusion allows for determining current treatment effectiveness and orthodontic treatment need after the completion of free orthodontic treatment under the Polish National Health Fund, which the legislator provided for children up to 13 years of age.

**Materials and methods:** The study included 500 children, aged 13 years (249 girls, 251 boys) from the Podlaskie voivodeship. The study was conducted in nine junior high schools, in a school nursing surgery using basic diagnostic tools (periodontal probe, dental mirror, laryngological

spatula). The rules of Polish orthodontic diagnosis by Orlik-Grzybowska were applied in diagnosis of malocclusion. Dental abnormalities were also determined.

**Results:** Malocclusions were found in 57.8% of patients. 34% of children had distal occlusion belonged to the most frequent irregularities, while lingual occlusions (1.6%) was observed the most rarely. Dental abnormalities, including teeth rotations (81.8%) as most frequent were reported in 82.8% of the respondents.

**Conclusions:** The prevalence of malocclusion in 13 - year old school children from the Podlaskie voivodeship is high and indicates the inadequacy of orthodontic health care program. Distal occlusion is the most common malocclusion. No significant differences were found between the prevalence of malocclusion and the place of residence.

**Key words:** malocclusion, epidemiological study, children

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