

Original Paper

## Dental caries index of first permanent molar (DMF6) and some of the associated factors in 12 year-old students in northern Iran (2015-16)

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### Abstract

**Background and Objective:** Permanent first molars are susceptible to caries due to their particular anatomical form, early development and lack of knowledge of parents about their permanence. This study was conducted to determine the index of first permanent dental careis (DMF6) and some of its related factors in 12 year-old students.

**Methods:** This descriptive-analytical study was carried out on 400 students (200 females and 200 males) using combined method (stratified and cluster sampling) from public and non-governmental schools in Gorgan, northern Iran during 2015-16. First permanent molar examination was carried out. The parents' education level, frequency of toothbrushing and daily consumption of sugar-containing snack foods was recorded in a questionnaire. Each decayed, missing and filled first permanent molar tooth was given number one. These numbers were combined to compute the DMF6 index for each individual.

**Results:** The DMF6 index was zero in 19.5% and the DMF6 index was determined to be between 1 and 4 in 80.5% of the children. The mean DMF6 index was  $2.23 \pm 0.07$  and significantly higher in girls ( $2.39 \pm 0.10$ ) than in boys ( $2.07 \pm 0.11$ ) ( $P < 0.05$ ). The DMF6 index decreased with increasing parental education and the frequency of brushing and reducing consumption of sugary meals.

**Conclusion:** Dental caries prevalence among 12-years-old students in north of Iran is higher (2.23) than global standard until 2020 (lower than 1). Gender of child, parent's education, frequency of toothbrushing and consumption of sugar-containing snack foods plays an important role in the rate of dental caries.

**Keywords:** DMF index, First permanent molar, Toothbrushing, Sugar-containing snack foods

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