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PREVALENCE AND DETERMINING FACTORS OF TRAUMATIC DENTAL INJURIES AMONG PRESCHOOL CHILDREN IN AMMAN, JORDAN

Background: A traumatic dental injury (TDI) is a public dental health problem because of its frequency, occurrence at a young age, and costs. In addition to pain, discomfort, and esthetic problems, trauma to the primary dentition can result in developmental disturbances of the permanent successors. **Aims:** The study aims at evaluating the prevalence of TDIs to primary anterior teeth among preschool children in Amman (Jordan) and evaluating the relationship between TDIs and associated factors. **Methods:** A cross sectional population-based study examined a total of 1198 children attending 39 preschools randomly selected from different areas of Amman-the capital city of Jordan. Questionnaires were sent to parents including questions about socio-demographic data as well as questions about the TDI. A two stage random sampling technique was used. The prevalence and pattern of TDIs were studied in relation to gender, type of preschool, parental education, type of injury, details of the event, parental awareness of dental trauma, and treatment provided, in addition to oral predisposing factors including overjet, overbite and lip competence. Andreasen's epidemiological classification including WHO codes was adopted to classify TDIs. Chi-square test and stepwise logistic regression modeling were used for statistical analysis; the level of significance was set at 0.05. **Results:** The prevalence of TDIs was 26.4%, the most common type of dental trauma was enamel fracture (43.1%), followed by pulp injury (42.2%). Only 25% of children with TDIs received treatment. The upper left central incisor was the most commonly involved tooth in dental trauma (40.6%). Boys presented more TDIs than girls, however; the difference was not statistically significant ($P > 0.05$). The odds ratio suggested that children with incompetent lips were 2.6 times more likely to sustain a TDI compared to children with competent lips (CI; 1.359- 2.647), and that children with an overjet greater than 3 mm were 1.9 times more likely to sustain a TDI compared to children with an overjet less than or equal to 3mm (CI; 1.359- 2.647). Similarly, children with an anterior open bite had 1.9 times greater chance to sustain a TDI compared to children with a positive overbite (CI; 1.079- 3.465). The prevalence of TDIs as reported by parents in the questionnaire was 13.2%, indicating a high percentage of parents unaware of their child's TDI (57.3%). **Conclusions:** The prevalence of dental trauma among preschool children in Amman (Jordan) was relatively high where almost one out of four children would be expected to have a TDI. However; only one quarter of children diagnosed with a TDI received a dental consultation after encountering the traumatic event, indicating limited access to dental health care services. Moreover, the general misconception that primary teeth are unimportant might have attributed to the high percentage of untreated TDIs. Increased overjet, anterior openbite, and incompetent lips were found to be strong determinants of dental trauma in the primary dentition.