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Children's Oral Health on Pico Island, Azores (Portugal) †

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Abstract: Pediatric dentistry focuses on children's oral health. The aim of this study was to describe the prevalence of malocclusion in a pediatric population. Eighty-two children (3–12 years old), of both genders, who belong to a Social Solidarity Institution for Children in Pico Island were clinically examined. Half were female and half were male, in which most were 7 years old (20.7%) with mixed dentition (58.5%). The highest prevalence was in canine class I and vertical molar. Most children did not have malocclusion characteristics (56.1%).

Keywords: prevalence; malocclusion; children

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1. Introduction

Pediatric Dentistry focuses on preserving children's oral health, and on preventing and treating diseases of the stomatognathic system observed during childhood and adolescence, from the eruption of the first deciduous tooth to the establishment of permanent occlusion [1]. Malocclusion is one of the most prevalent pathologies in this period, affecting not only the masticatory function but also the cranial development, facial appearance, and the quality of life of affected children. That is why it is so important that dentists must pay attention to the main risk factors and detect the first signs of this condition to intervene as early as possible [2–4]. The aim of this study was to describe the prevalence of malocclusion relating to the age group, gender, and type of dentition of the population sampled.

2. Materials and Methods

An epidemiological and descriptive study was carried out with a sample composed of 82 children, aged between three and twelve years old, of both genders (50% male; 50% female), who belong to a Social Solidarity Institution for Children in Pico Island, Azores (Portugal). The study was approved by the ethics committee of Egas Moniz Higher Education Cooperative, process no 811 of 19 December 2019. Inclusion criteria were children aged between three and twelve years old without craniofacial changes, and children who agreed to participate in the study through the presence of informed consent duly signed by a guardian or other legally responsible adult. Exclusion criteria were children with craniofacial disorders who had already undergone orthodontic treatment, and children who did not accept participation in the study or were not able to provide informed consent. Data were analyzed using descriptive and inferential methodologies. A significance level of 5% was set in the latter case.

3. Results and Discussion

The sample had total homogeneous distribution regarding gender, with 50% of the children female and 50% male, in which most were 7 years old (20.7%) and had mixed dentition (58.5%). Highest prevalence was registered in canine relationship class I, both

on the right (79.3%) and on the left (78%). The vertical step also registered the highest prevalence, both on the right (46.3%) and on the left (43.9%). No association was identified between variable malocclusion and the remaining variables. Finally, most children did not have malocclusion characteristics (56.1%) (Table 1). The higher prevalence was registered in canine relationship class I and vertical molar relationship. Most children did not have malocclusion characteristics. It is important to carry out more epidemiological studies in the Azores to understand the panorama of children's oral health and to monitor the evolution of data collected in the target population region of this study.

Table 1. Malocclusion prevalence.

	Frequency	Percentage (%)
Yes	36	43.9
No	46	51.6
Total	82	100

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Ethics Committee of Egas Moniz Higher Education Cooperative, process no 811 of 19 December 2019.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study. Written informed consent has been obtained from the patient(s) to publish this paper.

Data Availability Statement: MDPI Research Data Policies.

Acknowledgments: Nothing to declare.

Conflicts of Interest: The authors declare no conflict of interest.

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