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The influence of breastfeeding on the development of skeletal class II

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ABSTRACT

Introduction: Breastfeeding is fundamental for the health and orofacial development of the newborn, stimulating balanced jaw growth and proper functional patterns. However, its absence or limitation has been associated with an increased prevalence of skeletal class II malocclusion, with aesthetic, functional, and psychosocial impacts.
Objectives: This study investigates the relationship between the absence or limitation of breastfeeding and the development of skeletal class II, evaluates mothers' and pregnant women's knowledge on this topic, and explores social factors influencing the breastfeeding. Additionally, it aims to reinforce the importance of breastfeeding as a protective factor for balanced craniofacial development, promoting a preventive approach in Dental Medicine and raising awareness among health professionals, mothers, and caregivers about the orthodontic and functional benefits of breastfeeding. In this way, encouraging practices that support harmonious and healthy growth of orofacial structures.
Methodology: A cross-sectional observational study was conducted, applied to mothers and pregnant women (primiparous and multiparous) attending the Maternity and Obstetrics services at Hospital CUF Porto, aged between 24 and 49 years. The sample consisted of 139 participants. Data were collected through a structured questionnaire (previously validated) and entered into Excel and the Statistical Package for the Social Sciences for statistical analysis. The chisquare test was applied.
Results: In this study, motherhood was most prevalent among women aged 31–35, a range in which most participants already had one or two children. Of the 139 interviewed, 109 were mothers (87 were not pregnant and 22 were pregnant again) and 52 were pregnant (30 were primiparous and 22 were multiparous). Contrary to expectations, pregnant women without children (n=30) demonstrated greater knowledge about the minimum recommended duration of exclusive breastfeeding (87%) compared to pregnant women who were already mothers (n=22) (59%). Most participants did not report orthodontic changes in their children, although a relevant proportion reported a diagnosis or perception of dental occlusion alterations, suggesting increased parental attention to orofacial development and highlighting the importance of early screenings.

Contributions: Conceptualization: VR and MGQ; Data curation: VR, MGQ and CS; Formal Analysis: VR and MGQ; Funding acquisition: not applicable; Investigation: VR; Methodology: VR, and MGQ; Project administration: MGQ and MMP; Resources: VR and MGQ; Software: VR; Supervision: MGQ and CS; Validation: VR, MGQ, CS and AGC; Visualization: VR; Writing – original draft: VR, and MGQ; Writing – review & editing: VR, MGQ, MMP and AGQ.

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Conclusion: Through surveys conducted in a private hospital in northern Portugal, a general appreciation for breastfeeding was observed, but gaps in knowledge regarding the impact of bottle-feeding on occlusion and difficulties in maintaining the practice, mainly due to hypogalactia, were identified. The results reinforce the importance of breastfeeding as a preventive measure in orofacial development, emphasizing the need for integration between maternal-infant health and dental medicine, as well as targeted educational strategies.