

The Use of Orthodontic Pacifiers to Prevent Pacifier Induced Malocclusion - A Literature Review

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Abstract : Introduction: The use of pacifiers is common amongst infants and young children as a comforting behavior. These non-nutritive sucking habits can be detrimental to the developing occlusion should they persist while the permanent dentition is established. Orthodontic pacifiers have been recommended as an alternative to conventional pacifiers as they are considered to have less interference with orofacial development. However, there is a lack of consensus on whether this is true. Aim and objectives: To review the prevalence of malocclusion associated with the use of orthodontic pacifiers. Methodology: Literature was identified through a rigorous search of the Embase, Pubmed, CINAHL, and Cochrane Library databases. Articles published from 2000 onwards were included. In total, 5 suitable papers were identified. Results: One study showed that the use of orthodontic pacifiers increased the risk of malocclusion, as seen through a greater prevalence of accentuated overjet, posterior crossbites, and anterior open bites in comparison to individuals who did not use pacifiers. However, this study found that there was a clinically significant reduction in the prevalence of anterior open bites amongst orthodontic pacifier users in comparison to conventional pacifier users. Another study found that both types of pacifiers lead to malocclusion; however, they found no difference in the mean overjet and prevalence of anterior open bites amongst conventional and orthodontic pacifier users. In contrast, one study suggested that orthodontic pacifiers do not seem to be related to the development of malocclusions in the primary dentitions, and using them between the ages of 0-3 months was actually beneficial as it prevents thumb-sucking habits. One of the systemic reviews concluded that orthodontic pacifiers do not seem to reduce the occurrence of posterior crossbites; however, they could reduce the development of open bites by virtue of their thin neck design. Whereas another systematic review concluded that there were no differences as to the effects on the stomatognathic system when comparing conventional and orthodontic pacifiers. Conclusion: There is limited and conflicting evidence to support the notion that orthodontic pacifiers can reduce the prevalence of malocclusion when compared to conventional pacifiers. Well-designed randomized controlled trials are required in the future in order to thoroughly assess the effects of orthodontic pacifiers on the developing occlusion and orofacial structures.

Keywords : orthodontics, pacifier, malocclusion, review

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