

A comparison of oral hygiene status between two methods of instruction in orthodontic patients

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ABSTRACT

Introduction: The use of orthodontic fixed appliances increases the risk of plaque accumulation, primarily because it is challenging to maintain adequate teeth cleanliness between the brackets and the gingival margin. Consequently, there is a critical need to identify and implement effective methods for oral hygiene instruction tailored to the new generation of orthodontic patients. The study objective is to compare the oral hygiene status of patients with orthodontic fixed appliances in Pasir Puteh, Kelantan, by evaluating the effectiveness of video-based oral hygiene instructions (OHI) as compared to verbal instructions. **Materials and Methods:** This is an interventional study conducted at the Orthodontic Specialized Unit, Pasir Puteh Dental Health Clinic. Patients who met the specified inclusion and exclusion criteria were randomly assigned to one of two groups using a simple randomization technique. The first group received verbal instructions along with a model demonstration, while the second group received video instructions. The bonding of upper and lower fixed appliances using conventional metal brackets was performed by the same clinician, followed by the respective oral hygiene instruction (verbal or video) delivered by a trained dental therapist. Plaque index (PI) and gingival index (GI) measurements were recorded at three different time points: before the bond-up procedure (T0), after 4 to 6 weeks (T1), and at 6 months (T2). The comparison of PI and GI status between the two groups was analysed using Fisher's Exact test with IBM SPSS Software Version 24.0. **Results:** A total of 30 patients were recruited, with each group consisting of 15 patients. Fisher's Exact test indicated no significant difference in plaque index (PI) and gingival index (GI) between the video and verbal instruction groups at T1 and T2 ($p>0.05$). Furthermore, both groups demonstrated no significant difference in PI and GI changes after receiving oral hygiene instructions ($p>0.05$). These results suggest that either method yields comparable outcomes over time. **Conclusion:** Our findings demonstrate that both verbal and video-based OHI approaches were equally effective in the clinic setting. These results have important implications for dental practitioners, emphasizing the need to implement appropriate OHI techniques to ensure optimal oral health outcomes in this patient population.