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## METHODS OF MAINTAINING DENTAL AND ORAL HYGIENE DURING FIXED ORTHODONTIC WEAR

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### ABSTRACT

The development of partnerships involving the entire healthcare sector, including healthcare professionals tasked with general health and oral health specifically. This research includes literature studies by seeking relevant theoretical references on the encountered cases or issues. Knowledge will influence behavior, and behavior will prompt actions based on individual knowledge. The use of orthodontia is indeed useful for aligning teeth, but for fashion orthodontia users, it is recommended to undergo self-care and regular check-ups to prevent any unwanted anomalies.

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## INTRODUCTION

Developing partnerships involving the entire healthcare sector, including healthcare personnel responsible for general health and specifically dental and oral health. In Indonesia, dental and oral diseases are health issues that require intensive attention, given the high prevalence of problems they cause. Dental diseases, although not fatal, can reduce productivity and hinder community activities in daily life (1,2).

The relationship between the upper and lower jaw teeth may not be in accordance with what is expected. Normally, the upper jaw is positioned slightly forward compared to the lower jaw, but the upper jaw can grow larger or protrude more than the lower jaw, or vice versa. This can also affect the facial shape, making it appear more convex if the upper jaw protrudes, or more concave if the lower jaw protrudes. All of these issues are known as malocclusion (3,4).

Fixed orthodontics, also known as fixed orthodontic appliances, are orthodontic devices that are bonded directly to the teeth. Fixed orthodontics should be designed in a way that avoids plaque buildup or obstructions in cleaning. This can be a challenge for patients to maintain oral hygiene. Proper oral hygiene methods should be

taught and emphasized to patients during the placement of fixed orthodontics (5,6).

To maintain dental and oral hygiene, several things need to be considered during orthodontic treatment, including regular check-ups every three weeks, periodic tartar cleaning, and the use of toothbrushes with special designs (7).

Patients must be more diligent and meticulous in cleaning and brushing their teeth with orthodontic appliances during treatment, as having orthodontic appliances in the mouth can lead to the accumulation of food debris on both the teeth and the appliances themselves. This condition can decrease the level of dental and oral hygiene, potentially causing bad breath, gingivitis, tooth decay, and periodontal disease (7,8).

The level of dental and oral hygiene can be assessed through the process of plaque formation. One of the methods used to determine the level of dental and oral hygiene is the Oral Hygiene Index Simplified (OHI-S). The Oral Hygiene Index Simplified (OHI-S) is a combination of the Debris Index and the Calculus Index (9). This study aims to review the methods of maintaining dental and oral hygiene (OHI-S) among fixed orthodontic wearers.

## RESEARCH METHODS

This type of research belongs to the category of literature review studies conducted by searching for relevant theoretical references related to identified cases or issues. To support the attainment of data in this research, the choice of accurate literature greatly contributes to obtaining data validity and quality. Therefore, the data involved in this study are secondary data obtained from journals, books, Internet sources, and libraries.

## RESULTS AND DISCUSSION

The primary goal of orthodontic treatment is to correct the alignment and position of teeth that are not in the normal position (malocclusion), in order to achieve a stable relationship between the teeth (occlusal function) and restore good chewing function, muscle balance, and harmonious facial aesthetics (10).

Furthermore, orthodontic treatment aims to improve the patients' quality of life by addressing psychosocial difficulties related to facial and dental appearance. Hence, it can be concluded that there are two clear reasons for orthodontic treatment: aesthetics and function. Orthodontic treatment not only improves the alignment of teeth but, in certain cases, can also have a significant impact on an individual's environment, career development, and even psychological well-being.(11).

Based on the scope, orthodontic treatment can take the following forms: (1) Simple Treatment, which focuses on addressing a specific portion of the malocclusion identified as the treatment target. (2) Comprehensive Treatment, which involves a holistic approach to correcting malocclusion. (3) Multidisciplinary Treatment, which involves multiple branches of knowledge in addressing malocclusion. (4) Interdisciplinary Treatment, which involves collaboration between different fields of study, with joint treatment planning. For example, orthodontic treatment in conjunction with oral surgery for managing jaw fractures (12).

The research findings by Suci et al. (2016)) indicate that students' knowledge regarding oral hygiene falls under the category of "adequate." This condition is due to the easy access to

information for students attending schools located in urban areas. According to Masanja and Mughamba, information access influences students' knowledge levels. One easily accessible source of information for students is the mass media. Mass media is often utilized for health education to improve knowledge and address health issues, as it has the ability to influence a large number of people simultaneously.

Increasing knowledge will motivate students to take better care of their oral hygiene. Knowledge influences one's behavior. If a student has good knowledge, their behavior will be directly proportional to their knowledge. Students with high knowledge will exhibit positive behavior in dental care (14).

This is supported by Dewanti (2012), which states that respondents who have high knowledge about dental and oral hygiene exhibit positive dental care behavior, whereas respondents with low knowledge about dental and oral hygiene exhibit negative dental care behavior.

Orthodontic treatment is one of the means of preventing dental and oral health problems on a larger scale, aiming to straighten and restore the function of teeth to their original state. Essentially, the use of orthodontics has become popular in the present era, especially among teenagers. This is due to the high level of awareness among teenagers in paying attention to aesthetics, particularly regarding dental appearance (16).

Orthodontic treatment should follow the recommended procedures by the respective dentist to prevent other anomalies from occurring. This requires orthodontic users to undergo regular check-ups, which are useful for assessing the progress of the user's dental condition (17).

## CONCLUSIONS AND SUGGESTIONS

Knowledge will influence behavior, and behavior will result in actions in accordance with each person's knowledge. The use of orthodontic devices closely follows the essence of the times, where users are predominantly teenagers. The use of orthodontic devices is beneficial for correcting dental irregularities and restoring the function of teeth to their original state.

The use of orthodontics is indeed beneficial for straightening teeth, but for fashion orthodontic

users, it is recommended to perform self-care and regular check-ups to prevent unwanted anomalies.

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