

CLINICAL STUDY ON ORAL HYGIENE IN PATIENTS WITH FIXED DENTAL PROSTHESES

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ABSTRACT

Aim of the study The aim of the study was to assess and increase the awareness and the knowledge regarding oral hygiene practice in patients with fixed dental prostheses. **Materials and method** We performed a study in a cohort of fifty-four consecutive patients with FDPs, aged 25-55, attending the Fixed Prosthodontics Department during October 2017 - September 2019. **Results** Twenty (37%) patients do not use any oral hygiene aids to clean the prosthesis, the rest 34 (63%) using dental floss, mouthwash, interdental brushes or a combination of them. **Conclusions** The main reason for not using any dental cleaning aids might be the lack of oral health instruction, the patients not being informed by the dentists, but also economical factor and the patient's education and social background.

Key words: Oral hygiene, FDP, special cleaning aids

INTRODUCTION

Oral health conditions, as well as access to health services, are strongly determined by social, economic and living conditions. In terms of principal oral pathologies such as tooth decay and gum disease, social determinants are fundamentally significant in their process of causality [1,2].

The dental bridges help the replacement of missing teeth and restore oral functions and aesthetics. The maintenance of prosthesis is very important for the success of the treatment [3,4].

Fixed dental prosthesis (FDP) is still the treatment of choice for the replacement of missing teeth. Dentofacial problems caused by edentulism have known effects on patient's satisfaction, self-esteem and quality of life as they affect aesthetics, performance, and functions [5,6,7].

Oral hygiene instruction is meant to teach and guide the patients and plays an important role in achieving awareness and knowledge to maintain healthy teeth and periodontium. A proper patient education in oral hygiene can make the difference.

Patients with FDPs need constant, lifelong professional maintenance and guidance to keep a proper oral hygiene around the fixed restorations. Furthermore, the use of special aids is considerably improving the survival rates of fixed partial dentures [8,9].

The aim of the study was to assess and increase the awareness and the knowledge regarding oral hygiene practice in patients with fixed dental prostheses.

MATERIALS AND METHODS

We performed a study in a cohort of fifty-four consecutive patients with FDPs, aged 25-55, attending the Fixed Prosthodontics Department during October 2017-September 2019.

The primary study inclusion criteria were:

- patients with partial edentulism, with at least one FDP
- patients without a history of any systemic disease or any known drug allergy.

A questionnaire of 15 closed-ended questions was given to all the patients. The questions aimed the description of FDP – age, materials, location; the oral hygiene – habits, knowledge of specific aids to clean underneath FDPs, specific aids used to clean FDPs, received instruction; clinical follow-up of FDP; food lodgement, and the overall expectations and satisfaction with FDP.

RESULTS AND DISCUSSIONS

About 55.56% of females and 44.44% of males participated in the study (Table 1).

In the study group 42.59% of patients have FDP for less than 1 year, 37.04% of patients have FDP for 1–5 years, and 20.37% of patients have FDP for >5 years (Table 2).

The most frequent materials for fixed partial dentures were metal-ceramic (31%) and metal-acrylic (30%). 13% of patients had metal-composite restorations, 11% presented multiple FDPs made of different materials,

9% metal restorations and 6% all-ceramic restorations. These results might reflect both the patient's aesthetic concerns and his limited economic possibilities.

Table 1. Study group by gender and age

Age	Men		Women		Total	
	n	%	n	%		
25-35	6	11.11	5	9.26	11	20.37
36-45	11	20.37	14	25.93	25	46.30
46-55	7	12.96	11	20.37	18	33.33
Total	24	44.44	30	55.56		

Table 2. Study group - age of FDP

Age of FDP	n	%
<1 year	23	42.59
1–5 years	20	37.04
>5 years	11	20.37

Shetty et al. reported that 79.6% of the examined patients had metal-ceramic crowns, 15.4% had all metal crowns, and 4.8% had all ceramic crowns [2], proving a high interest of the patients for aesthetic restorations.

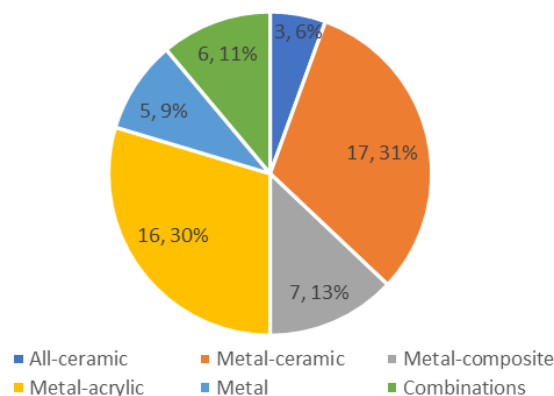


Figure 1. FDP materials

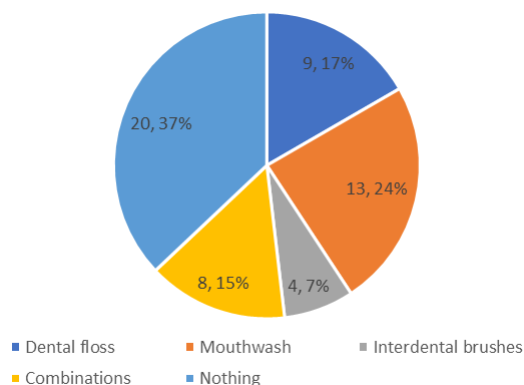


Figure 2. Special cleaning aids

For 48 (88.88%) patients the FDPs were done in academic dental hospitals and for 6 (11.11%) of them in private dental clinics.

Twenty (37%) patients do not use any oral hygiene aids to clean the prosthesis, the rest 34 (63%) using dental floss, mouthwash, interdental brushes or a combination of them (Figure 2).

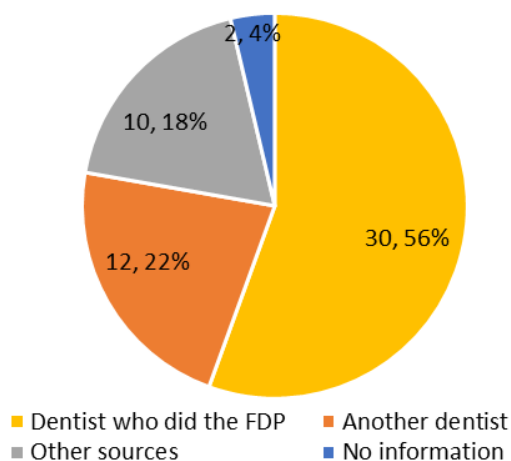


Figure 3. Information on special cleaning method

30 (55.56%) patients reported that they were instructed to use special cleaning methods by the dentist who did the prosthesis; 12 (22.22%) reported that another dentist introduced special cleaning method; 10 (18.52%) patients reported that they know about the special cleaning method from other sources like family, friends or media and 2 (3.7%) had no information.

54% of patients declared that they

improved their oral hygiene after the last FDP was made, 37% maintained the same oral hygiene habits and 9% did not remember.

What can be noticed is that the number of patients who had the information about oral hygiene special aids is higher than that of patients who actually used the special cleaning aids. An important aspect is the economical factor but also the patient's education and social background. Another aspect to mention is that some of the patients that had the restorations done in Prosthodontic Clinic, have been prior to other clinics, like Periodontal Clinic, and already received the information about cleaning aids.

In the study of AlQabbaa and Rayyan, conducted on a sample of 200 patients, 34 (17%) patients were using special dental aids to clean underneath their prostheses. 28 (82%) of those reported that dentist who did the prosthesis introduced the special cleaning method; 2 (6%) reported that the special cleaning method was introduced by another dentist; 3 (6%) by friends; and 1 (3%) of patients reported that they found out about special cleaning method through media [6].

The different results between our study and the study of AlQabba and Rayyan may be given by the fact that 88.88% of our patients had their restorations made in an academic prosthodontic clinic, comparing to 62% in the mentioned study.

Geiballa et al. reported that 94% of patients were not using dental aids to clean their FDPs. The main reason, for 91.1% of them, was that the dentist did not inform them [4].

These studies clearly prove that the knowledge on oral hygiene maintenance that the patients must have relies mainly on the dentist instructions.

CONCLUSIONS

The main reason for not using any dental cleaning aids might be the lack of oral health instruction, the patients not being informed

by the dentists, but also economical factor and the patient's education and social background.

Instructing the patients on oral hygiene methods after the insertion of prosthesis is

very important because the prosthesis may fail due to poor oral hygiene, leading to dental caries and periodontal problems even though the prosthesis is well adapted, contoured, and polished.

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