

# Periodontal Practice, Implant Practice and Referral Profile of General Dentists in Palestine

## Abstract

It is logical to expect an increase in the number of referrals to periodontists due to increasing age and the sophistication of periodontal treatments. But the actual scenario is different as the referral rates to dental specialists are still low. An online questionnaire was sent to 300 general dental practitioners in Palestine. A total of 180 full questionnaires were received back and statistically analyzed. From this study it was found that Palestinian dentists are practicing most of the non-surgical procedures at their dental offices; while referrals for surgical procedures were made.

**Keywords:** Periodontal treatment; Periodontal referral; Periodontal Palestine

## Research Article

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**Hakam Rabi<sup>1</sup>, Tarek H Rabi<sup>2\*</sup>, Emad Qirresh<sup>1</sup> and Mohammad Assaf<sup>3</sup>**

<sup>1</sup>Department of Oral radiology and diagnosis, Al Quds University, Palestine

<sup>2</sup>Department of Operative Dentistry, Al Quds University, Palestine

<sup>3</sup>Department of Periodontology, Al Quds University, Palestine

\*Corresponding author: Tarek H Rabi, Department of Operative Dentistry, Al Quds University, Palestine, Tel: 97252244413, 052244413; Email: tarekrabi@gmail.com

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## Introduction

With the improvement in various medical services, the mean age of the population is increasing. The increase in the mean age of patients leads to oral health implications. Different studies have also proven the fact that prevalence and severity of periodontitis increases with the advancing age [1-3]. This is due to the result of the slow progression of the disease over years. Due to this fact, periodontitis is more common in older individuals [4].

As per a study conducted by American Dental Association, more than 47% of the adults of 30 years or more suffer from mild, moderate and severe forms of periodontitis. These statistics suggest that a high referral rate to periodontists should be expected; however, this is not happening and the referrals are much less than expected [5].

This study was conducted to evaluate the provision of periodontal practices and referral profile in Palestine. This study has taken into account the various factors that influence dental practitioners about patient referral.

## Materials and Methods

An online questionnaire was sent to three hundred randomly selected Palestinian dental practitioners. This questionnaire consisted of general information of the dentist and various factors affecting the dentists' decision regarding performing a periodontal procedure or referring the patient to specialists. The results were deduced through statistical analysis.

## Results

Out of 300 questionnaires, 180 were filled and sent back with a response rate of 60%. Majority of the respondents were females (62.2%). In this study, the years of practice were noted and the mean was calculated. Mean years of practice for male participants

was calculated to be 14.2 years while for females it was found to be 8.6 years. Majority of the respondents (95.6%) provide non-surgical therapy in their practice while 80% respondents didn't provide surgical periodontal therapy. Only one-fifth of the responding dentists thought that they have inadequate knowledge about periodontal diseases and treatments (Table 1).

**Table 1:** General questions about the dental practitioner:

Characteristics	Number (%age) of Respondents
<b>Sex (n=180)</b>	
Females	112 (62.2%)
Males	68 (37.8%)
<b>Years of Practice (Mean)</b>	
Females	8.6 years
Males	14.2 years
<b>Provides non surgical periodontal Therapy</b>	
Yes	172 (95.6%)
No	8 (4.4%)
<b>Provides surgical periodontal Therapy</b>	
Yes	36 (20%)
No	144 (80%)
<b>Adequate periodontal education</b>	
Yes	142 (78.9%)
No	38 (21.1%)

### Profile of periodontal therapy and referral patterns

This was divided into three sections:

- i. Non-surgical periodontal therapy
- ii. Surgical periodontal therapy
- iii. Implant related therapy

**Non-surgical periodontal Therapy:** Non-surgical treatment such as scaling (100%), scaling and root planing (97.2%), and periodontal maintenance (96.1%) are regularly performed by Palestinian GDPs at their clinics (Table 2).

**Surgical periodontal therapy:** Surgical procedures such as gingivectomy (56.7%), frenectomy & vestibuloplasty (10%) and crown lengthening (20.5%) are carried out much less frequently

in the dental office. The procedures such as gingival grafting (1.7%) and bone grafting (12.2%) are much less often carried out by GDPs and generally referred to periodontists and oral surgeons (Table 3).

**Implant related therapy:** Regarding implant related surgeries, more than half of the participants performed the implant surgeries by themselves. However, a higher percentage preferred referring patients with failing implants to the specialists such as oral surgeons (42.2%) and periodontists (32.2%). The data shows that trends of referrals to oral surgeons are higher than periodontists in most aspect of implant therapy. The only procedure which was favorably performed by periodontists was implants in the esthetic zone where the referrals to periodontists (25.5%) were higher than oral surgeons (21.1%). The results are described in Table 4.

**Table 2:** Non surgical periodontal therapy.

Non-Surgical Periodontal Therapy	Participants Performing the Therapy at Dental Clinic	Referral to the Periodontist	Referral to Other Specialists
Scaling	180 (100%)	0 (0%)	0 (0%)
Scaling and root planing	175 (97.2%)	5 (2.8%)	0 (0%)
Periodontal maintenance	173 (96.1%)	7 (3.9%)	0 (0%)

**Table 3:** Surgical periodontal therapy.

Surgical Periodontal therapy	Participants performing the therapy at dental clinic	Referral to the periodontist	Referral to other specialists
Gingivectomy	102 (56.7%)	70 (38.9%)	8 (4.4%)
Frenectomy/vestibuloplasty	18 (10%)	83 (46.1%)	79 (43.9%)
Crown lengthening procedures	37 (20.5%)	143 (79.5%)	0 (0%)
Gingival grafting	3 (1.7%)	177 (98.3%)	0 (0%)
Bone Grafting	22 (12.2%)	60 (33.3%)	98 (54.4%)

**Table 4:** Implant related surgical procedures.

Implant Related Surgical Procedures	Participants Performing the Therapy at Dental Clinic	Referral to the Periodontics	Referral to Other Specialists
Single implant placement	114 (63.3%)	31 (17.2%)	35 (19.4%)
Implant placement in esthetic zone	96 (53.3%)	46 (25.5%)	38 (21.1%)
Multiple implant placement	105 (58.3%)	25 (13.8%)	50 (27.7%)
Treatment of failing implant	46 (25.5%)	58 (32.2%)	76 (42.2%)
Removal of failed implant	103 (57.2%)	27 (15.0%)	50 (27.7%)

### Reasons for referring patients to the specialists

On asking about the main reason for referring the patients to specialists, 55.0% respondents said that the inadequate experience or training is the main reason followed by being “unable to motivate the patients” (17.7%) and “to avoid medico-legal issues” (10.5%) (Table 5).

**Table 5:** Reason for referring patients to periodontist.

Main reason for Referring the Patients	Number of Participants
Inadequate experience or training	99 (55.0%)
Unable to motivate patients	32 (17.7%)
Complicated systemic health	6 (3.3%)
Lack of facility	13 (7.2%)
Poor outcome in past	11 (6.1%)
To avoid medico-legal issues	19 (10.5%)

### Discussion

There are not many studies conducted in the field of evaluating the attitudes and periodontal practice of general dentists in Palestine, thus not many references can be found in this field.

Other studies in this field also suggest almost similar trends that general dentists are performing most of the non-surgical periodontal procedures at their clinics [5,6]. As per this study, in contrast to non-surgical procedures, for surgical procedures patients are often referred to specialists such as periodontists and oral surgeons. Gingivectomy (56.7%) is most commonly performed surgical procedure by general dentists. These statistics are much higher than a study held in Washington [5]. In this study it was also found that only 3.3% dentists are performing crown-lengthening procedures at their clinics while this number is quite higher than results of a study conducted in Virginia (48%) [6]. Almost similar results are found in a study conducted in Nova Scotia, Canada (17.0%) [7].

As per this study, single implant placement is performed by 63.3% general dentists while this number is slightly less for placing implants in the esthetic zone (53.3%). In general, more referrals of implant surgeries to oral surgeons than periodontists are reported; however, periodontists are most often referred in case of implant placement in aesthetic zone. A study to evaluate the performance of implant surgery in Canadian dentists showed this [8].

In this study, six factors were cited to determine the reason for referring the patients to the periodontists and other specialists. Inadequate experience/training was cited as the most common reason as per 55% participants. This figure was higher in the study conducted in Nova Scotia Canada (79.4%). Medico-legal issues seem to influence the decision of referring the patients to the periodontists as per 10.5% participants.

A study was conducted in Virginia showed that four demographic variables have a statistical influence on the number of referrals from general dentists to a periodontists. These variables were as follows: female gender, practicing with one other dentist, employing two or more hygienists, and being >5 miles away from the nearest periodontist [9]. Another online survey was conducted in the southeastern region of the United States to identify the factors influencing the referral process to periodontists. The periodontists clinical skill was chosen by general dental practitioners as the primary factor influencing the referral decisions of dentists. Periodontists perceived a previous positive experience between the dentist and periodontist as the most influential factor [10].

### Conclusion

From this study it can be concluded that the general dentists are comfortable in carrying out the non-surgical procedures such as scaling, root planning and periodontal maintenance. But there are still some doubts about the periodontal surgical procedures. This can be due to inadequate knowledge, lack of facilities at the dental clinic or the medico legal concerns. This study thus deduces that more emphasis should be provided regarding the periodontal surgical procedures during dental study at the institutes. Thus this study can be helpful in improving the study patterns in the dental schools and institutes. More of such studies must be carried out to know about the basic level of periodontal practices carried out among the general dental practitioners.

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