

ORAL HEALTH STATUS AMONG PATIENTS SEEN AT ENDODONTIC CLINIC AT PRINCE RASHED HOSPITAL IN THE NORTH OF JORDAN

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ABSTRACT

The study was aimed to assess the oral health care, plaque index (PI), gingival index (GI) scores and, decayed, missing, filled tooth (DMFT) index in patients undergoing endodontic treatment at Prince Rashed Hospital in the North of Jordan.

Two hundred endodontic patients with an age range of eighteen to forty-four years old formed the study group. One hundred twenty (60%) females and eighty (40%) males were examined by a periodontist to assess oral and gingival health using Löe and Silness plaque and gingival indices, (PI) and (GI). The patients were asked to fill a questionnaire regarding the oral hygiene practice they follow, and whether he or she was a smoker.

Results of this study showed that out of total of one hundred twenty females, one hundred two patients (85%) brushed their teeth at least once; fifty-eight patients of the males did that (72.5%). Twenty-two patients of the females (18.3%) used auxiliary oral hygiene aids, and nineteen patients of the males (23.8%) did that. The mean PI for the whole sample was 1.49 while the mean GI was 1.63. For the female sample, the mean PI and GI were 1.38 and 2.08, respectively. For the male sample, the mean PI and GI were 1.66 and 2.2, respectively. The DMFT for the females was 7.2, while it was 8.9 for the males. For the whole sample, it was 7.9. Two female patients (1.6%) in the sample were smokers, while 22 male patients (27.5%) smoked. A total of 24 patients (12%) in the sample were smokers.

It was concluded that the oral health status among adults in Jordan was within the global average, and this was shown by PI, GI, and the oral hygiene measures used by the sample. The prevalence of dental caries in this study represented by the DMFT was close to that of other studies in Jordan and other countries.

Key Words: Oral health, dental caries, gingival diseases, endodontic patients, DMFT, gingival indices.

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INTRODUCTION

Despite the enormous progress in preventive dentistry, dental caries and periodontal diseases are still prevalent health problems in developing and developed countries. Dental caries is one of the most prevalent chronic diseases worldwide.¹ These diseases are multifactorial, meaning they are associated with many interrelated factors.

Factors such as occupational status, family income, and level of education of parents and socioeconomic status of the population have been associated with dental caries.²

Oral hygiene is the key behind preventing these diseases, but many people are either unaware of the importance of oral hygiene or neglecting it for one reason or another.

Very little information is available about the oral health of the adult population in Jordan. Most researchers talked about pediatric or early adult schoolchildren.

Epidemiological data analysis can help in reducing the prevalence of the diseases, by giving data to public

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health administrations to plan their future preventive oral health programs and developing dental services.¹² Efforts to reduce the negative effects of the diseases of the oral health is an important priority for dental health-care providers.¹³

The aim of the present study was to investigate the oral hygiene status of 18-44 years old patients who visited endodontic department and to investigate whether or not the advancement in age or the awareness of the dental disease improves the oral hygiene measures.

METHODOLOGY

Two hundred patients visited endodontic clinic at Prince Rashed Hospital in the north of Jordan of both genders with age between 18–42 years were included in present study. A periodontist examined all the patients and recorded gingival and plaque indices using a dental mirror and a periodontal probe. An endodontist recorded decayed (D), missing (M), filled (F) teeth (T) (DMFT). Moreover, patients filled out a customized self-made questionnaire regarding the smoking status and the frequency of tooth brushing. (Figure 1).

RESULTS

Out of the 200 patients, 120 were females and 80 were males. Tables 1, 2, and 3 show the gingival and plaque indices for the sample. Generally, GI and PI were 1.63 and 1.49, respectively. Table 4 shows the number of tobacco smokers in the sample — 24 (12%).

The DMFT for the population was 7.9, with scores of 8.9 for males and 7.2 for females.

Females showed a better attitude toward oral hygiene, with lower scores for plaque and gingival indices, lower prevalence of dental caries, and lower frequency of smoking.

DISCUSSION

DMFT is the most common method for assessing the prevalence of dental caries.³

TABLE 1: GINGIVAL INDEX SCORES

	Score 0	Score 1	Score 2	Score 3	Total
Number of females	1 (1%)	63 (53%)	45 (37%)	11 (9%)	120
Number of males	0 (0%)	32 (40%)	36 (45%)	12 (15%)	80
Total	1 (0.5%)	95 (47.5%)	81 (40.5%)	23 (11.5%)	200

TABLE 2: PLAQUE INDEX SCORES

	Score 0	Score 1	Score 2	Score 3	Total
Number of females	5 (4%)	68 (57%)	44 (37%)	3 (3%)	120
Number of males	3 (4%)	29 (36%)	40 (50%)	8 (10%)	80
Total	8 (4%)	97 (49%)	84 (42%)	11 (5%)	200

TABLE 3: MEAN GINGIVAL AND PLAQUE INDICES

	Gingival index	Plaque index
Female	1.55	1.38
Male	1.75	1.66
All subjects	1.63	1.49

TABLE 4: NUMBER OF SMOKER PATIENTS

	Smoker	Non-smoker	Total
Females	2(1.7%)	118(98.3%)	120
Males	22(27.5%)	58(72.5%)	80
Total	24(12%)	176(88%)	200

TABLE 5: FREQUENCY OF DAILY TOOTH BRUSHING

	No brushing	Once	Twice	More than two times	Total
Female	18(15%)	45(38%)	46(38%)	11(9%)	120
Males	22(27%)	38(48%)	16(20%)	4(5%)	80

TABLE 6: MEAN DMFT

Male	8.9
Female	7.2
Whole group	7.9

The mean DMFT in the present study appears high when compared to other studies;^{5,6,7} it was 7.9 for the whole population, but this is not strange because, in most of these studies, the samples were schoolchildren or younger patients. Moreover, the DMFT increases with an increase in the participant's age.⁸ The value of DMFT in the present study was considered acceptable when compared to studies conducted on older patients^{9,10}

This means that oral hygiene practices, education and motivation to improve the oral health is still needed to reach DMFT value closer to the value of zero.

Regarding the plaque and gingival indices, they were 1.49 and 1.63 respectively. It was close to studies published in Jordan and worldwide.^{11,12,13} So, the gingival status in the sample of this paper was fair.

The majority of patients visited public hospitals in northern Jordan, including the hospital in which present study was carried out, had moderate to low socioeconomic status and family income; low incomes and low levels of education seem to be variables with good predictability for periodontal diseases.⁴ When these factors are not applicable (i.e., in private clinics), oral hygiene status will appear to be better. This means that if the sample had included patients from the public as well as from private clinics, the results could have been better with regards to the awareness of patients and the status of oral hygiene.

In present study, smokers formed 12% of the total sample; the prevalence of male and female smokers was 27.5% and 1.70%, respectively. Smoking is a significant risk factor for periodontitis.¹⁴ The prevalence seems lower than what has been reported in many surveys performed in Jordan and other countries.^{14,15} The 2014 tobacco survey in Jordan revealed that the prevalence of smoking in the country was 56.6% in males and 4.0% in females.¹⁵

Generally, females had shown better oral hygiene, less prevalence of dental caries, less gingival inflammation, and less frequency of smoking. Mamai-Homata E. et al. showed similar results where women have shown to have better oral hygiene and gingival status than men.¹⁶

CONCLUSION

The results showed that the oral health status among adults in Jordan was similar to other studies. However, this level of oral hygiene and dental care can be improved more by educating and motivating people especially those visiting public dental clinics, who make the majority of dental patients in Jordan.

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3 Alaa Maghaireh:	Manuscript writing and editing. Final proofreading.
4 Khaled Haddadin:	Final approval of version.
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