

An Investigation of the Dental Specialties and Availability of Rubber Dam Facilities among Private Dental Clinics in Al-Kharj City, Saudi Arabia

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Abstract: The aim of this investigation was to explore the dental specialties and availability of rubber dam facilities among private dental clinics in Al-Kharj city, Saudi Arabia. This was completed by in-person investigation of all private dental clinics in Al-Kharj city, recording the number of dental professionals, their specialties, status of their authorization, and the availability of rubber dam facilities within each clinic. One hundred and six dentists were distributed between 100 clinics in 28 centers. General dental practitioners (GDPs) were the most of them (84%). Only 10 out of the total of 14 orthodontists were authorized to practice orthodontic treatment. Rubber dam was available in only five centers. Lack of various dental specialties in Al-Kharj city was noted. The GDPs should not practice dental procedures which are not included in their job description and duty. Low rubber dam availability indicating the underuse of them which would affect the quality of dental treatment.

Keywords: Private practice, Dental specialties, Rubber dam, Healthcare quality

INTRODUCTION

Al-Kharj city is situated 75 km south to Riyadh; the capital city of Saudi Arabia, with a total population of 376,325[1].

There were many patients' complaints to the Dental Department, Ministry of Health from the citizen of Al-Kharj city about the quality of the dental services in the local private sector. The complaints came particularly in orthodontic and endodontic treatments. However, there was no sufficient data regarding the number of the private dental clinics and dental practitioners, in addition to their specialties.

To facilitate gaining data about the current private dental practice in Al-Kharj city as a response to the patients' complaints, the Dental Department in Ministry of Health has made a plan to investigate the situation and the quality of the dental services in the private sector.

As a part of the quality of dental treatment, the use of rubber dam considered as an indicator of the high standard of dental treatment. Rubber dam isolation has many advantages during the dental treatment and its usage is a mandatory especially in some dental procedures such as endodontic and restorative treatment. Their use can provide better infection control, increase patient protection and safety, and improve treatment efficiency[2-4].

However, their usage still low as reported in many articles worldwide[5-8]. The barriers for using the rubber dam efficiently include dental professional's opinion and education, shortage of training on their use which make its placement unpleasant for both the

dentist and the patient[9], and their availability within the clinic.

The aims of this study were:

1. To investigate the distribution of dental professionals and their specialties who work in private clinics in Al-Kharj city.
2. To investigate their authorization and their classification by the authorities.
3. To check the availability of rubber dam material, kit and instruments; in order to give a view about rubber dam usage and their availability which is indicating the good dental practice.
4. To have base line information for those who want to start investment in dental practice in Al-Kharj city.
5. To correct the situation for patients interest and improve the dental services.

MATERIALS AND METHODS

This descriptive investigation conducted on all dental professionals working in private clinics in Al-

Kharj city, Saudi Arabia, as a part of an authorized mission by Dental Department, Ministry of Health, to investigate and provide an inventory report about the distribution of dental specialties and availability of rubber dam. In person investigation by visiting all clinics, meeting all dentists, investigating their authorization and the availability of rubber dam, was conducted during January -February 2017.

The mission included looking for descriptive data, counts, specialties, registration and classification by Saudi Commission for Health Specialties, and the availability of rubber dam in all private clinics. The Saudi Commission for Health Specialties is the only body authorized to register and classify practitioners in all health specialties in Saudi Arabia.

All data were managed and edited using Microsoft® Excel® (Microsoft® Office 2010, Microsoft® Corp, Redmond, WA, USA).

RESULTS

The results of this study (Table 1) can be summarized in the following:

There were 14 dental specialized centers and 14 dental departments within medical centers. The total number of dental clinics was 100 clinics with an average of 3.6 dental clinics per center.

The total number of dentists was 106 dental professionals. All of them but one were non-Saudi. The general dental practitioners (GDPs) were representing the majority as there were 89 (84%) GDPs. All GDPs were registered and classified by the Saudi Commission for Health Specialties.

Those who were practicing orthodontics were 14 dentists (13.2%). However, only 10 of them (71.4%) were registered and classified as an orthodontist by the Saudi Commission for Health Specialties.

The rest of the dentists were distributed as one specialist in restorative dentistry, one specialist in endodontics, and one specialist in oral surgery, which all were registered and classified by the Saudi Commission for Health Specialties.

The rubber dam availability was noted only in 5 out of the 28 centers investigated (17.9%).

Table 1: Summary of the results

	Dental Centers	Dental Department in Medical Centers	Total
Total number of centers	14	14	28
Total number of dental clinics	63 Mean= 4.5 (SD= 1.7)	37 Mean= 2.6 (SD= 1.6)	100
Orthodontists	10	4	14 (13.2%)
Authorized Orthodontists	Yes: 8 (80%) No: 2 (20%)	Yes: 2 (50%) No: 2 (50%)	Yes: 10 (71.4%) No: 4 (28.6)
GDPs	55	34	89 (84%)
Restorative	1	0	1 (0.9%)
Endodontists	1	0	1 (0.9%)
Oral Surgery	1	0	1 (0.9%)
Rubber Dam	2 centers	3 centers	5 (17.9%)

DISCUSSION

The results of this study revealed important results showing the current reality of dentists in Al-Kharj city in various dental specialties and workplaces and other related information specifically for private dental practices.

The proportion of the authorized dental professionals who were practicing orthodontic treatment was 71.4%. The fact that GDPs were practicing orthodontic treatment was a warning issue which needs to raise attention about it. This would affect the quality and success of the treatment, and would result in patient complaint. Most of patients' complaints received in the Dental Department, Ministry of Health, in al-Kharj city were about malpractice in orthodontic treatment. The second most complaints were about the endodontic complications.

The very low number of Saudi dentists shown in this study indicates the need to increase the number of admission to the postgraduate programs for various dental specialties for Saudi dentists due to the lack of these specialties in general. This action additionally would raise the quality of dental services provided by dental clinics, both private and governmental clinics and reduce the proportion of medical errors and malpractice.

In the literature, the majority of patients' complaints worldwide came from the private practices. These involved various malpractice associated with shortage of adhering to the acceptable standards and protocols[10-13].

The use of the rubber dam should be mandatory not only among specialist but among general practitioners, too. The primary education is also important, students should be guided to use this system [14].

Various reasons have been cited for the low frequency of rubber dam usage. These include lack of patient acceptance, time required for application, insufficient training and lack of skills, and cost of equipment and materials [5,6,9,15].

Questionnaire studies often include a smaller sample size due to a low return rate. Furthermore, most returned response is answered by responsible and cooperative dentists, resulting in a possible bias in the frequency of the rubber dam usage, in addition to the doubt about the accuracy of the answers [7,8]. This study chose to evaluate rubber dam usage by in-person investigation of the availability of rubber dam within each clinic.

Rubber dam is underused in the private clinics in Al-Kharj city. The low percentage of the rubber dam availability warns quality issues, safety and medico-legal concerns for both the patient and the dentist. Greater emphasis should be placed on the advantages of rubber dam. This needs to be improved through continuing dental education for practitioners, updating their knowledge, and making their availability within the clinics mandatory.

CONCLUSIONS

- Lack of various dental specialties in Al-Kharj city.
- The GDPs should not practice dental procedures which are not included in their job description and duty.
- Low rubber dam availability indicating the underuse of them which would affect the quality and consequently the success of dental treatment.

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