

# **Patient's satisfaction about dental services during pandemic COVID19 at Riyadh Elm University. A questionnaire study**

## **Abstract:**

**Background:** Quality is a major concern of health care agencies all over the world. Patients' satisfaction has been investigated in many dental clinics in various countries. Satisfaction of the patient plays a key role in determining the correlation between the quality of health-care services provided and the patients' trust. Aim of the study was to determine the level of satisfaction regarding the quality of dental care and preventive measures and precautionary provided among patients at dental clinics of Riyadh Elm University during the COVID-19 pandemic.

**Materials and Methods:** Pre-validated questionnaire was sent to patients attending clinics of Riyadh Elm University during pandemic COVID 19. The period of study was from March till September of 2020. Questionnaire consisted of items on appointment availability, satisfaction with the performance of the reception, satisfied with your treating practitioner, treatment fees, satisfied with the level of cleanliness/sterilization preventive measures and precautionary provided, and finally overall evaluation of the services received within the clinics.

**Results:** A total of 1313 questionnaires were collected from the Electronic System used in the dental clinic of Riyadh Elm University during pandemic COVID-19. (92%) of the participants agreed that it was easy to get an appointment in the dental clinics during pandemic COVID-19,(88.9%) were satisfied with services received in the Dental Clinic of Riyadh Elm University during pandemic COVID-19,(66%) were satisfied with treatment fees. Majority of the participants were satisfied with the

treating provider (91%) and most of the participants were satisfied with services received in the dental clinic of Riyadh Elm University during pandemic COVID-19.

**Conclusions:** Dental clinics of Riyadh Elm University has been successful during pandemic COVID-19, in achieving participant's satisfaction regarding the services, staff, treatment, and fees

**Keywords:** *COVID-19, Dental care, Pandemic, Satisfaction*

### **Introduction:**

Studies confirm that high quality services are directly linked to increased market share, profits and savings [1]. Generally, service quality is also recognized as a corporate marketing and financial performance driver [2].

Improved quality of care has been a key objective in all health care systems worldwide during pandemic COVID19, regardless of cultural differences that exist.

Unprecedented circumstances like recent COVID-19 pandemic put immense pressure on healthcare service providers to reshape the hospital infrastructure and policies to deter the spread of deadly infections and ensure smooth functioning of healthcare delivery. The best delivery of dental treatment can only be given when proper protocols are being followed [3-5]. One such healthcare domain that requires thoughtful guidelines revision is Dental Services care. There was a pandemic-preparedness plan that assists in maintaining a fine balance between dental care services delivery and minimal risk of nosocomial COVID-19 infection.

The satisfaction of the patient is considered important to predict patient compliance, their ability to follow preventive instructions, adherence to treatment and as a determining factor in the future use of dental services during pandemic COVID-19.

This is why patient satisfaction is considered increasingly important in evaluation of the general quality of dental services during pandemic COVID-19 and, therefore, in the improvement of dental services.

User satisfaction is a concept that encompasses multiple dimensions and has various definitions in the field of healthcare, based on social psychology and marketing. The evaluation of patient satisfaction as a measure of health care was largely addressed in the seventies and eighties by multiple authors. While the study in the seventies focused on determining those variables that influenced the satisfaction process, the consequences of its processing were also analyzed in the eighties [6].

The first to refer to patient satisfaction term were Koos and Donabedian, for whom patient satisfaction is, above all, “a measure of the result of the interaction between health professionals and the patient” [7]. Patient satisfaction is an objective and also a result focused on by the users of healthcare networks. From this perspective, it has progressively become a permanent concern of Health Services, both public and private [8].

But healthcare quality is difficult to measure owing to inherent intangibility, heterogeneity and inseparability features [9]. Butler et al. [10] reiterate Zeithaml [11] that patients participating in production, performance and quality evaluations are affected by their actions, moods and cooperativeness. Healthcare is dynamic – considerable customer changes have taken place and competition is increasing [12]. Consequently, healthcare quality evaluations raise problems owing to service size, complexity, specialization and expertise within healthcare organizations [13].

Satisfaction in relation to dental services during pandemic COVID 19 is a topic addressed in current methodologies for evaluating dental services programs. In this

context, satisfaction can be considered an intermediate result of the dental services which reflects the extent to which the dentist responds to the needs of patients, meets their expectations and provides an acceptable level of service during pandemic COVID-19. Satisfaction is based on the patient's experience from the moment they set foot in the clinic until he leaves. This will naturally depend on the dental treatment and services received, maintaining confidentiality, accuracy of appointments, staff appearance and attitude, in addition to the surrounding environment.

### **Materials and Methods:**

#### 1. Participants

The participants in this study will be female and male from all ages who visited Riyadh Elm University clinics who visited during the corona pandemic during the period of March till September of 2020. Participants will be contacted to measure patients' satisfaction with dental services during pandemic COVID-19.

#### 2. Materials

A pre-validated questionnaire [14] about patient's satisfaction consisting of appointment availability, satisfaction with the performance of the reception, satisfied with your treating practitioner, treatment fees, satisfied with the level of cleanliness/sterilization, compassionate and caring of the support staff and treatment provider, and finally overall evaluation of the services received within the clinics.

#### 3. Data analysis

All the responses will be collected and entered into the Excel sheet for the purpose of analysis. Descriptive statistics of frequency distribution and percentages will be calculated and displayed in the form graphs using SPSS statistical software 16.

4. Ethical considerations :

A- IRB approval was obtained from REU research center

B- Consent: English and Arabic consent forms will be given to patient

C- Confidentiality: no information about the patient will be revealed.

**Results:**

A total of 1313 questionnaires were collected from the Electronic System used in the dental clinic of Riyadh Elm University during pandemic COVID19.

A total of 1209 (92.1%) of the participants agreed that it was easy to get an appointment in the dental clinics during pandemic COVID19, 28(2.1%) disagreed, and 76 (5.8%) said yes to some extents [Figure 1]

Table 1. Was it easy to get an appointment during pandemic COVID-19?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1209	92.1	92.1	92.1
	2	28	2.1	2.1	94.2
	3	76	5.8	5.8	100.0
	Total	1313	100.0	100.0	

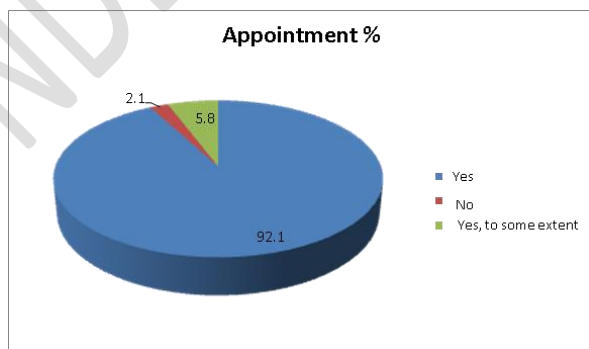


Figure 1. Appointment%

A total of 1167 (88.9%) were satisfied with services received in the Dental Clinic of Riyadh Elm University during pandemic COVID-19, 122 (9.3%) satisfied and 24(1.8%) were unsatisfied [Figure 2].

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1167	88.9	88.9	88.9
	2	24	1.8	1.8	90.7
	3	122	9.3	9.3	100.0
	Total	1313	100.0	100.0	

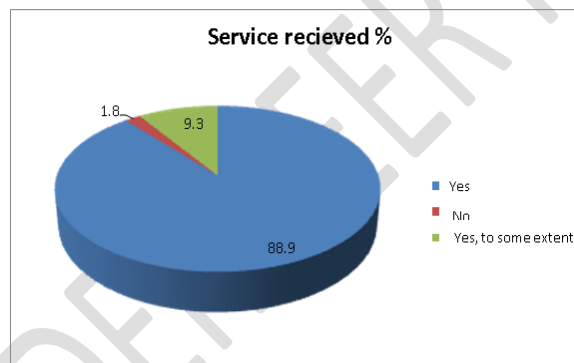


Figure 2. Service received%

[Figure 3] describes the patient satisfaction regarding the cleanliness and sterilization in the clinic during pandemic COVID-19, about 1149 (87.5%) patients were satisfied with the cleanliness during pandemic COVID-19, 134(10.2%) very satisfied, and only 30 (2.3%) were unsatisfied.

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	1	1149	87.5	87.5	87.5
	2	30	2.3	2.3	89.8
	3	134	10.2	10.2	100.0
	Total	1313	100.0	100.0	

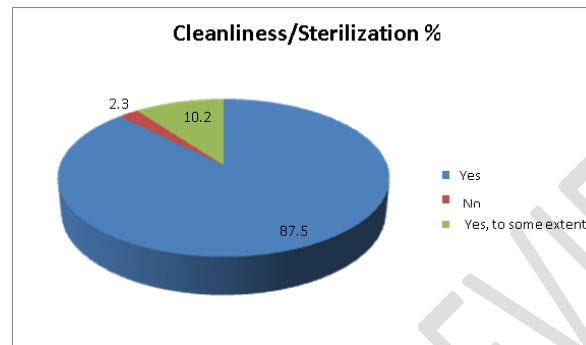


Figure 3. Cleanliness/Sterilization%

There were 1206 (91%) patients who agreed that the treating practitioner and supporting staff were compassionate and caring, only 35 (2.7%) disagreed, and 72 (5.5%) of the participants said yes in some extents [Figure 4].

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1206	91.9	91.9	91.9
	2	35	2.7	2.7	94.5
	3	72	5.5	5.5	100.0
	Total	1313	100.0	100.0	

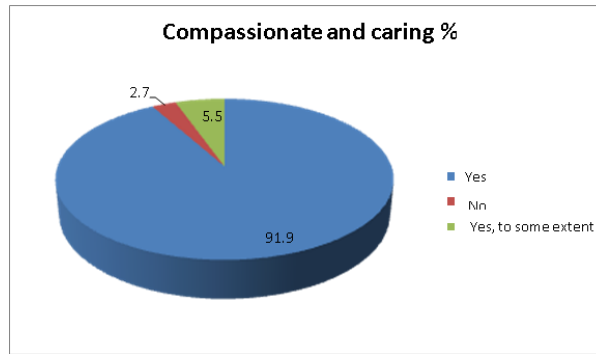


Figure 4. Compassionate and caring %

Treatment fees were not reasonable for 434 participants (33.1%) and 879 (66.9 %) were satisfied with fees [Figure 5].

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	879	66.9	66.9	66.9
	2	434	33.1	33.1	100.0
	Total	1313	100.0	100.0	

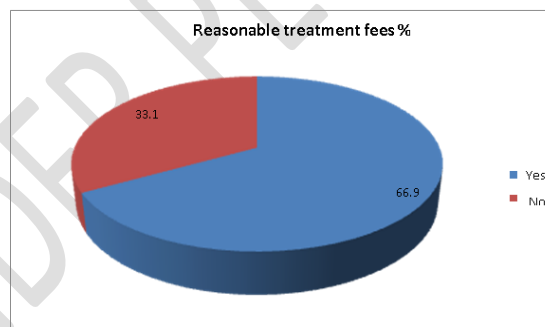


Figure 5. Reasonable treatment fees%

Majority of the participants were satisfied with the treating provider, 1195(91%) very satisfied, 94(7.2%) satisfied, and only 24 (1.8%) were unsatisfied [Figure 6].

		Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	1	1195	91.0	91.0	91.0
	2	24	1.8	1.8	92.8
	3	94	7.2	7.2	100.0
	Total	1313	100.0	100.0	

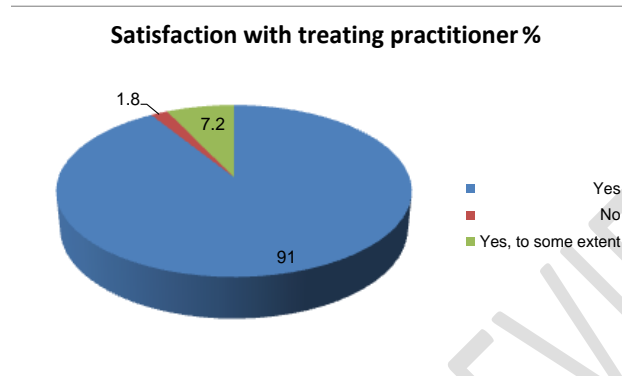


Figure 6. Satisfaction with treating practitioner%

A total of 1193 (90.9%) were very satisfied with the performance of the reception, 99 (7.5%) satisfied, and 21 (1.6%) unsatisfied regarding the reception [Figure7].

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1193	90.9	90.9	90.9
	2	21	1.6	1.6	92.5
	3	99	7.5	7.5	100.0
	Total	1313	100.0	100.0	

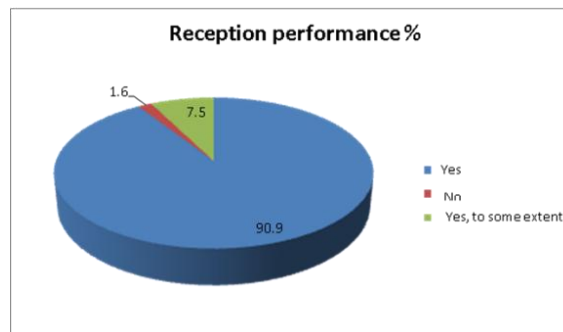


Figure 7. Reception performance%

## **Discussion:**

Patient satisfaction during pandemic COVID-19 mainly depends on the treatment and services received. This study measured the patient's satisfaction with the dental care received at Riyadh Elm University Dental Clinic during pandemic COVID-19. Patients were asked seven question comprised items on appointment availability during pandemic COVID-19, evaluation of the services received within the clinics during pandemic COVID-19, satisfaction with the level of cleanliness/sterilization during pandemic COVID-19, compassion and caring of the support staff and treatment provider, satisfaction with your treating practitioner, treatment fees, and finally overall satisfaction with the performance of the reception.

The first question was about the simplicity of appointment taking in Riyadh Elm University during pandemic COVID-19, 92.1% were satisfied and agreed that it was significantly easy. It was the most satisfactory attribute of dental services in our study. Whereas, the level of satisfaction about the performance of the reception, 90.9% very satisfied, 7.5% satisfied, and (1.6%) unsatisfied regarding the reception , Which is similar to study that evaluated satisfaction patient ease of obtaining appointment in Dental Healthcare Centers Kuwait [15].

In general, most of the participants were satisfied with services COVID-19 and only 1.9% were unsatisfied, Which is similar to study that evaluated satisfaction with the quality of dental care conducted on the adult population in UK, about (90%) of people were satisfied with the quality of care they received [16]

Infection control and cleanness is one of the important factors of a successful dental clinic during pandemic COVID-19 that patients trust. Karydis *et al* [17] found that adherence to the rules of antiseptics and sterilization was patient's top priority. The

current study found that (87.5%) of the patients were very satisfied with the cleanliness of the clinic during pandemic COVID-19. The study also found a higher level of satisfaction with the steps taken to protect them from infection COVID-19 when compared to a similar study.

In most industrialized countries, dental diseases are considered as the fourth most expensive disease to treat, thus creating cost barrier for the dental care during pandemic COVID-19. Dental services in Saudi Arabia are provided through the network of government-run dental clinics and privately owned dental clinics. With the increasing level of oral diseases such as dental caries and increased cost of treating such diseases has led to inequalities in oral health. The dental services provided by the Dental Clinic of the Riyadh Elm University may be able to aid in reducing these inequalities, in that immediate access to the dental services are based on the availability of students and equipment in various clinics.

The most frequently reported reason for wanting to be a patient at the dental school was low cost during pandemic COVID-19. In our study, Feedback shows that the treatment fees were not reasonable for 33.1% of the participants and 66.9% were satisfied with fees.

Another important aspect is staff appearance and attitude. Majority of the participants in our study were satisfied with the treating provider by 91% and 91.9% agreed that the treating practitioner and supporting staff were compassionate and caring ,This is different from Othman and Abdel Razzak [18] who found a much lower level of satisfaction among patients.

### **Conclusions:**

The Dental Clinic of Riyadh Elm University has been successful during pandemic COVID-19 in achieving participant's satisfaction regarding the services, staff, treatment, and fees . Evaluation of patient satisfaction should be done continuously at regular to determine the satisfaction with dental care services during pandemic COVID-19 and also to keep the high percentage of satisfaction and for more improvement, to explore and better understand how patients evaluate satisfaction in dental care and elicit information from them to develop a dental services during pandemic COVID-19.

**Limitation:** The generalization of these results is patient's response was slow.

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