

## Research Article

# REASONS FOR PREFERRING THE PRIVATE SECTOR IN ORAL AND DENTAL HEALTH SERVICES: AN EXAMPLE FROM A PRIVATE CLINIC IN ISTANBUL

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### Abstract

**Purpose:** The study aims to understand why patients prefer private oral and dental health services, and seeks to evaluate the state of preference for the private sector under some variables related to sociodemographic and reasons for visiting a dentist.

**Method:** In this cross-sectional study conducted in a private dental clinic in Istanbul, 123 valid responses were obtained from a total of 155 patients over a month. The status of reasons such as access to service, trust, interest, waiting time, and external factors for preferring private oral and dental health services were examined through the data obtained via a survey.

**Findings:** It was determined that the factor receiving the highest preference score was 'Interest'. In addition, no significant difference based on demographic variables on preferences was found, however, the sub-dimension of Trust has been a distinguishing factor in tooth extraction.

**Results:** The study also sheds light on the need for the public sector to improve its services to be able to effectively compete with the private sector in the field of oral and dental health, due to high scores from all dimensions related to the reason for preferring the private sector. It is considered that the findings obtained may vary in less urban or rural areas, and it is seen that there is a need for more extensive studies on the subject, which is limited in terms of the number of research conducted in the literature.

**Keywords:** Patient Preference; Dental Health; Dentist-Patient Relationships; Private Sector.

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## ***Ağız ve Diş Sağlığı Hizmetlerinde Özel Sektörü Tercih Etme Nedenleri: İstanbul'dan Bir Özel Klinik Örneği***

### **Öz**

**Amaç:** Çalışma, hastaların neden özel ağız ve diş sağlık hizmetlerini tercih ettiklerini anlamayı amaçlamakta olup, özel sektörü tercih nedenleriyle ilgili durumu; sosyodemografik ve diş hekimine gelme nedenlerine ilişkin bazı değişkenler altında değerlendirmeyi hedeflemektedir.

**Yöntem:** İstanbul'da bir özel diş kliniğinde yürütülen kesitsel çalışmada, bir aylık toplamda 155 hastadan 123'ü geçerli yanıtlar sağlamıştır. Hizmete erişim, güven, ilgi, bekleme süresi ve dış faktörler gibi özel ağız ve diş sağlığı hizmetini tercih etme nedenlerinin durumu anket yoluyla veriler elde edilerek incelenmiştir.

**Bulgular:** En yüksek tercih sebebi puanı alan faktörün 'İlgi' olduğu belirlenmiştir. Ayrıca, tercihler üzerinde demografik değişkenlere dayalı önemli bir fark bulunamamış, ancak Güven alt boyutu diş çekiminde ayırıcı bir faktör olmuştur.

**Sonuç:** Çalışmada ayrıca özel sektörü tercih sebebiyle ilgili tüm boyutlardan yüksek puan alınması nedeniyle kamusal sektörün, ağız ve diş sağlığı alanında özel sektörle etkin bir şekilde rekabet edebilmek için hizmetlerini geliştirme ihtiyacına yönelik ışık tutmaktadır. Elde edilen bulguların daha az kentsel veya kırsal alanlarda farklılık gösterebileceği düşünülmekte ve literatürde yapılan araştırma sayısı bazında sınırlı olan konuyla ilgili daha çok ve daha kapsamlı çalışmalara ihtiyaç olduğu görülmektedir.

**Anahtar Kelimeler:** Hasta Tercihi; Diş Sağlığı; Diş Hekimi-Hasta İlişkileri; Özel Sektör.

## **1. INTRODUCTION**

Factors such as a shortage of healthcare professionals, increasing oral and dental health needs of the aging population, improved health literacy, increased value placed on self-care and appearance due to the use of social media, and easier access to oral and dental healthcare services have been leading to an increasing trend of regular visits to dentists (Al-Khalifa et al., 2021; Mumcu et al., 2004; Nguyen & Häkkinen, 2006). On the other hand, factors such as fear of dental treatments, high costs, and limitations in health insurance coverage have been identified as barriers that slow down the utilization of oral and dental health services (Mittal et al., 2019). The use of public funds to finance healthcare services can help address the imbalance between treatment expenses and the capacity to afford them, offering opportunities for effectiveness and fairness. However, due to perceived inefficiencies in the administration and delivery of public services, prioritization of personal choices, and challenges in managing financial resources, the interest in private healthcare services has increased worldwide over the past twenty-five years (Leake & Birch, 2008). The example of the United States has become significant, as despite significant advancements in oral health over the past half-century, inequalities in oral health status still persist, and certain populations bear a disproportionate burden of disease (Robinson, 2009). Income support can help alleviate payment difficulties, especially among the poor, but due to the uncertainties, external influences, and information asymmetry associated with healthcare services, relying solely on income support may not be sufficient to correct market failures in healthcare (Tan et al., 2021). Özyavaş (2018) stated in his study that the number of dentists per capita in Istanbul is the lowest among all regions in Turkey. On the other hand, changes in lifestyles, aesthetic concerns, increased awareness of oral care, among other factors, have made individuals more demanding when it comes to oral health, making it challenging to meet the service demand in densely populated areas (Almalki et al., 2019). Furthermore, it has been reported that the allocated share for oral and dental health increased from 4.2% to 5.1% between 2013 and 2015 (Özyavaş, 2018). However, compared to some developed countries, Turkey's participation rate in public healthcare is lagging (Kavşur & Sevimli, 2021).

Failing to seek or postponing oral and dental health services, when needed, can lower individuals' quality of life, complicate future treatments, lead to tooth loss, and require expensive and lengthy treatments such as dental implants (Hajek et al., 2021). Dental diseases are increasingly being recognized as a priority and urgent healthcare need, and the proportion of national healthcare expenditures dedicated to diagnosis and treatment is receiving more attention (Leake & Birch, 2008). Therefore, as research on oral and dental health has increased in recent years, the importance of examining personal factors in individuals' preferences has been emphasized. While identifying the difficulties in determining the

preferred sector, it is also believed that personal factors such as the importance individuals attach to oral health, education level, cultural norms, and social factors can influence their choices. In this context, the diversity of patients motivates dentists in the private sector to strive for better service in a competitive environment, while factors such as technological advancements, changes in health literacy, hobbies, and tobacco use shape the demand and frequency of oral and dental health services from different perspectives (Inglehart et al., 2022). Siripipatthanakul and Nyen Vui (2021) emphasized that current treatment techniques provided by dentists, support in overcoming dental fear, staff attitudes, working hours, and ease of access to dentists are significant factors influencing preferences. Meanwhile, it is important to examine the reasons for choosing public healthcare services versus the private sector in terms of personal factors and attitudes. In their study, Keleş and Güven (2022) stated that patients believed that public healthcare services were weaker in terms of interest, trust, prompt treatment, and appointment scheduling compared to the private sector. It is necessary to determine the public perception regarding the preference for private healthcare services, especially among individuals affected by income-related disparities, to identify preventable dental problems in advance (Tan et al., 2021).

This research aims to examine the reasons why patients visiting a private dental clinic choose private health services, considering sociodemographic factors and conducting a situation assessment. The limited number of studies in the literature on this topic suggests the importance of this research, despite the limited sample. The situation analysis carried out is intended to guide future comprehensive studies on the reasons for choosing the high-cost services of the private sector.

## **2. METHODS**

### **2.1. Research Type**

The research is a cross-sectional study and has a descriptive nature.

### **2.2. Research Questions**

The study aims to find answers to the following questions:

- Do the reasons for preferring the private sector in oral and dental health services vary based on sociodemographic factors?
- Do the reasons for preferring the private sector in oral and dental health services differ in terms of the type of dental treatment, frequency of visits, and dental treatment fear?
- What is the situation regarding the reasons for preferring the private sector in oral and dental health services in terms of Access to Service, Trust, Interest, Waiting Time, and External Factors related to the institution?

### **2.3. Time and Place of the Research**

The research took place at a private clinic located in the Bahçelievler district of Istanbul, where a dentist and a dental technician work. The data for the research were collected during a one-month period from May 15, 2023, to June 15, 2023.

### **2.4. Universe and Sample**

For the research, all patients who visited the clinic during the specified dates were considered as the population, and the aim was to reach the entire population. Prior to the study, it was determined that 147 different individuals had visited the clinic in the past month. Based on this information, to achieve a representative sample of the population, the required minimum number of participants was calculated as 107 with a 95% confidence level and a response distribution of 0.5. However, since this estimation was based on assumptions, at the end of the study, it was queried how many individuals had visited the clinic during the specified time period, and it was found that 155 individuals had sought treatment at the clinic. Among the 127 individuals who volunteered to participate in the research during the specified time period, it was determined that 123 valid questionnaires were included. Considering that the required number of participants to reach in a population of 155, based on the same known population estimation and under the same conditions, would be 111, and the actual number of participants included in the study was 123, it can be assumed that the research adequately represents the population.

### **2.5. Verilerin Analizi**

The data for the research was collected through a questionnaire. The questionnaire consists of two sections. The first section includes 8 items that were developed by the researchers to assess participants' characteristics and their reasons for visiting a dentist. These items include questions about gender, income level, age, education level, marital status, reasons for visiting the dentist (specific procedures or check-ups), frequency of visiting the dentist in the past year, and fear related to visiting the dentist. In the second section of the questionnaire utilizes the Reason for Choosing the Private Sector in Oral and Dental Health Services Scale, which was developed and validated by Akalın et al. (2021). This scale consists of 22 items and assesses five factors: Access to Service, Trust, Interest, Waiting Time, and External Factors. The scale does not contain reverse-scored items, and the average scores obtained from each factor indicate the extent to which that particular factor contributes to the preference for the private sector. The factors and their descriptions are as follows (Akalın et al. 2021):

- **Access to Service:** Reflects the ease of accessing dental appointments, communication with the dentist, respect for privacy, and adherence to appointment times. A higher score in this factor indicates that these aspects influence the patient's preference for a particular dentist.

- **Trust:** Includes measures related to precautions against infectious diseases, the dentist's successful execution of treatment, the low probability of errors, and efforts by staff to alleviate fears related to visiting the dentist. Higher scores in this factor indicate an increased sense of trust, which plays a role in the preference for the private sector.
- **Interest:** Involves factors such as the presence of a preferred dentist for the whole family, trust in the dentist's level of interest, and ease of accessing the dentist. Higher scores in this factor indicate that interest plays a role in the preference for the private sector.
- **Waiting Time:** Refers to aspects such as accessing dental services in the late hours, accessing the treatment room during procedures, minimal waiting times, and promptness in post-examination procedures. Higher scores in this factor indicate that these reasons contribute to the preference for the private sector.
- **External Factors:** Represents factors based on reasons such as difficulty in obtaining appointments in public services and media reports on malpractice or unsuccessful treatments in public institutions. Higher scores in this factor indicate an increased preference for the private sector based on these reasons.

The reliability analysis conducted by the scale developers reported the following values: 0.86 for the Access to Service subscale, 0.80 for the Trust subscale, 0.76 for the Interest subscale, 0.71 for the Waiting Time subscale, 0.60 for the External Factors subscale, and 0.90 for the overall scale reliability (Akalin et al. 2021).

## **2.6. Data Collection**

Permission was obtained from the institution on 10.04.2023 for the collection of data for the research. Data was collected between the specified dates through both online surveys (via QR code access link) and face-to-face surveys.

## **2.7. Analysis of Data**

The data was analyzed using the SPSS 22.0 software. Descriptive statistics such as frequency, percentage, mean, standard deviation, median, quartiles and minimum and maximum values were used for data presentation. The reliability of participants' responses was assessed using the Alpha coefficient. The overall reliability of the scale was found to be 0.921, with 0.784 for the Access to Service subscale, 0.822 for the Trust subscale, 0.725 for the Interest subscale, 0.832 for the Waiting Time subscale, and 0.670 for the External Factors subscale. The reliability results were found to be relatively close to those reported by the scale developers (Akalin et al. 2021). Skewness and kurtosis values were examined to assess the normality of numerical data, and it was assumed to have a normal distribution as the values

ranged from -0.545 to 0.835, indicating no extreme outliers. For hypothesis testing and comparative analyses, independent samples t-test and one-way analysis of variance (ANOVA) were used. In hypothesis tests for variables with groups having less than 30 observations, Mann-Whitney U test and Kruskal Wallis H test has been utilized. The findings were interpreted at a 95% confidence level.

## **2.8. Ethical Aspect of the Research**

All researchers accept and commit to adhere to the Helsinki Declaration. For the conduct of the study, permission was obtained from the Istanbul Arel University Ethics Committee in the meeting on 12.05.2023, with meeting number 2023/10 and decision number 15. Throughout the research process, the voluntary participation of the participants was prioritized, and written informed consent was obtained. Special emphasis was given to the protection of privacy and personal data during the research process, and a commitment was made to use the data solely for research purposes.

## **2.9. Inclusion and Exclusion Criteria**

### **Inclusion criteria:**

- Participants between the ages of 18 and 65.
- Participants who visited the private dental clinic during the specified time period (15.05.2023-15.06.2023).
- Participants who voluntarily agreed to participate in the study and provided written informed consent.
- Participants who completed the survey questionnaire accurately and completely.

### **Exclusion Criteria:**

- Participants who were younger than 18 or older than 65 years of age.
- Participants who did not visit the private dental clinic during the specified time period.
- Participants who did not provide informed consent or declined to participate in the study.
- Participants who did not complete the survey questionnaire or provided incomplete or inconsistent responses.
- Participants who were unable to understand and respond to the survey questions due to language barriers or cognitive impairments.
- Participants who had severe oral health conditions or medical conditions that could affect their responses or participation in the study.

## **3. RESULTS**

Sociodemographic characteristics of the participants are given in Table I.

**Table I. Characteristics of Participants**

	<b>n</b>	<b>%</b>		
<b>Gender</b>				
Female	69	56,1		
Male	54	43,9		
<b>Education Level</b>				
High school and below	52	42,3		
Associate/Bachelor's Degree	71	57,7		
<b>Age groups</b>				
18-24 years and below	34	27,6		
25-34 years	47	38,2		
35 years and above	42	34,1		
<b>Marital Status</b>				
Single	81	65,9		
Married	42	34,1		
<b>Income Level</b>				
Income less than expenses	31	25,2		
Income equal to expenses	56	45,5		
Income more than expenses	36	29,3		
<i>Total</i>	<i>123</i>	<i>100,0</i>		
	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
<b>Age</b>	19,00	57,00	32,31	10,37

Out of the participants, 191 (%54.9) are 35 and under, 141 (%40.5) are between 46-50, and 16 (%4.6) are 51 and older. 248 are female (%71.3), and 100 are male (%28.7). Most of them (%57.7) have an associate degree/bachelor's/graduate's degree level of education. The majority of them (%65.9) are single. For most of them (%45.5), their income level is equal to their expense level. The average age of the participants is 32.31±10.37 (Table I).



**Table II. Information related to participants' dental treatment visits**

	n	%
<b>Filling/Root Canal Treatment</b>		
Yes	64	52.0
No	59	48.0
<b>Tooth Extraction</b>		
Yes	49	39.8
No	74	60.2
<b>Orthodontic Treatment</b>		
Yes	12	9.8
No	111	90.2
<b>Implant</b>		
Yes	8	6.5
No	115	93.5
<b>Teeth Cleaning/Whitening</b>		
Yes	44	35.8
No	79	64.2
<b>Other</b>		
Yes	4	3.3
No	119	96.7
<b>Frequency of Visits to the Dentist</b>		
Less than once a year	54	43.9
Between 1-3 times a year	57	46.3
Between 4-6 times a year	7	5.7
More than 6 times a year	5	4.1
<b>Fear Towards Dental Treatment</b>		
I'm not afraid	64	52.0
I'm a little afraid	40	32.5
I'm afraid	19	15.4
<i>Total</i>	<i>123</i>	<i>100.0</i>

The majority of the participants (%52.0) came for fillings/root canal treatments. Those who came for tooth extraction constitute 39.8%, those for orthodontic treatment constitute 9.8%, those for implant treatment constitute 6.5%, those for dental stone cleaning or whitening constitute 35.8%, and those for other treatments constitute 3.3%. Among those who came for other treatments, two reported that they came for dentures and two for routine checks (Table II).

**Table III. Descriptive Statistics of Scores Received by Participants from the Scale of Reasons for Preference of the Private Sector in Oral and Dental Health Services**

	Min-Max	$\bar{x} \pm s$
Access to Service	12-25	19.89±3.14
Trust	11-30	22.84±3.83
Interest	11-25	18.85±3.7
Waiting Time	8-20	15.24±2.95
External Factors	2-10	7.8±1.76
<b>Preference of the Private Sector (General Score)</b>	<b>57-110</b>	<b>84.62±12.53</b>

When examining the scores that the participants received from the Scale of Reasons for Preference of the Private Sector in Oral and Dental Health Services, it was found that they received an average of  $19.89 \pm 3.14$  from the Access to Service sub-dimension, an average of  $22.84 \pm 3.83$  from the Trust sub-dimension, an average of  $18.85 \pm 3.7$  from the Interest sub-dimension, an average of  $15.24 \pm 2.95$  from the Waiting Time sub-dimension, an average of  $7.8 \pm 1.76$  from the External Factors sub-dimension, and an average of  $84.62 \pm 12.53$  from the total score (Table III).

**Table IV. Comparison of scores obtained from the scale according to the characteristics of the participants**

		Access to Service	Trust	Interest	Waiting Time	External Factors	General Score
	n	$\bar{x} \pm s$	$\bar{x} \pm s$	$\bar{x} \pm s$	$\bar{x} \pm s$	$\bar{x} \pm s$	$\bar{x} \pm s$
<b>Gender</b>							
Female		$19.72 \pm 3.25$	$22.81 \pm 3.63$	$18.77 \pm 3.82$	$15.1 \pm 3.18$	$7.74 \pm 1.92$	$84.14 \pm 13.08$
Male		$20.09 \pm 3$	$22.87 \pm 4.12$	$18.96 \pm 3.57$	$15.43 \pm 2.64$	$7.87 \pm 1.54$	$85.22 \pm 11.87$
<i>t</i>		-0.644	-0.084	-0.289	-0.604	-0.409	-0.472
<i>p</i>		0.521	0.933	0.773	0.547	0.683	0.638
<b>Age groups</b>							
18-24 years and below		$19.47 \pm 3.04$	$22.68 \pm 3.69$	$18.85 \pm 4$	$15.41 \pm 3.11$	$7.79 \pm 1.93$	$84.21 \pm 12.67$
25-34 years		$20.53 \pm 2.54$	$22.94 \pm 3.72$	$18.77 \pm 3.53$	$15.17 \pm 2.85$	$8.17 \pm 1.39$	$85.57 \pm 11.59$
35 years and above		$19.5 \pm 3.73$	$22.86 \pm 4.15$	$18.95 \pm 3.72$	$15.19 \pm 3$	$7.38 \pm 1.92$	$83.88 \pm 13.61$
<i>F</i>		1.626	0.045	0.028	0.076	2.277	0.225
<i>p</i>		0.201	0.956	0.973	0.927	0.107	0.799
<i>Post-hoc</i>		-	-	-	-	-	-
<b>Educational Level</b>							
High school and below	52	$19.92 \pm 3.45$	$23.21 \pm 4.06$	$19 \pm 3.78$	$15.54 \pm 3.03$	$7.58 \pm 1.93$	$85.25 \pm 13.46$
Associate's/ Bachelor's/ Graduate degree	71	$19,86 \pm 2,92$	$22,56 \pm 3,66$	$18,75 \pm 3,66$	$15,03 \pm 2,89$	$7,96 \pm 1,62$	$84,15 \pm 11,87$
<i>t</i>		0,111	0,926	0,374	0,948	-1,187	0,477
<i>p</i>		0,912	0,356	0,709	0,345	0,237	0,634

*t*: Independent samples *t*-test; *F*: One-way analysis of variance

When the scores obtained from the scale were compared according to the characteristics of the participants, no statistically significant difference was found in any variable ( $p > 0,05$ ) (Table IV).

**Table V. Comparison of participants' scores from the scale based on their information about coming for dental treatment**

		Access to Service	Trust	Interest	Waiting Time	External Factors	General Score
<b>Filling/Root Canal Treatment</b>	<b>n</b>	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$
Yes	64	20.38±2.86	23.41±3.8	19.33±3.69	15.56±3.08	8.06±1.76	86.73±13.04
No	59	19.36±3.36	22.22±3.81	18.34±3.67	14.9±2.78	7.51±1.73	82.32±11.62
<i>t</i>		1.815	1.728	1.489	1.251	1.759	1.975
<i>p</i>		0.072	0.087	0.139	0.213	0.081	0.051
<b>Tooth Extraction</b>	<b>n</b>	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$
Yes	49	19.45±2.75	21.73±4.01	18.31±3.47	15.08±2.57	7.92±1.44	82.49±11.1
No	74	20.18±3.36	23.57±3.55	19.22±3.82	15.35±3.19	7.72±1.95	86.03±13.27
<i>t</i>		-1.260	<b>-2.660</b>	-1.340	-0.495	-0.661	-1.542
<i>p</i>		0.210	<b>0.009*</b>	0.183	0.621	0.510	0.126
<b>Orthodontic Treatment</b>	<b>n</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>
Yes	12	19.5 (17.25-22.5)	22.5 (18.25-23)	18.5 (15.75-20)	15.5 (14-17.75)	7.5 (7-8)	83 (69.75-88.75)
No	111	20 (18-22)	23 (21-25)	19 (16-21)	15 (13-17)	8 (7-9)	85 (76-91)
<i>z</i>		-0.159	-0.806	-0.107	-0.569	-0.830	-0.320
<i>p</i>		0.874	0.420	0.915	0.570	0.406	0.749
<b>Implant</b>	<b>n</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>
Yes	8	20 (16.75-24.75)	22.5 (18-28.5)	20.5 (19-24.75)	15.5 (14.25-20)	9 (6.25-10)	87 (76.5-106)
No	115	20 (18-22)	23 (21-24)	19 (16-20)	15 (13-17)	8 (7-9)	85 (76-89)
<i>z</i>		-0.409	-0.242	-1.719	-0.995	-0.824	-0.811
<i>p</i>		0.683	0.808	0.086	0.320	0.410	0.417
<b>Teeth Cleaning/ Whitening</b>	<b>n</b>	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$
Yes	44	19.75±3.26	22.93±3.22	18.98±3.3	15.16±2.99	8.16±1.52	84.98±10.36
No	79	19.96±3.09	22.78±4.15	18.78±3.92	15.29±2.94	7.59±1.86	84.42±13.64
<i>t</i>		-0.358	0.203	0.276	-0.237	1.718	0.237
<i>p</i>		0.721	0.839	0.783	0.813	0.088	0.799
<b>Other</b>	<b>n</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>
Yes	4	21 (16.25-22.75)	22.5 (21.3-23.8)	16.5 (15.3-18.5)	15 (13.3-16)	7.5 (7-8)	83.5 (75.5-85.5)
No	119	20 (18-22)	23 (21-25)	19 (17-21)	15 (13-17)	8 (7-9)	85 (76-91)
<i>z</i>		-0.309	-0.258	-1.400	-0.303	-0.753	-0.628
<i>p</i>		0.757	0.796	0.162	0.762	0.451	0.530
<b>Frequency of visiting the dentist in the past year</b>	<b>n</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>	<b>Q<sub>2</sub> (Q<sub>1</sub>-Q<sub>3</sub>)</b>
Never	54	20 (17-22)	23 (21-25)	19 (17-21)	16 (13-17.25)	8 (6-8.25)	84.5 (76-91.5)
Between 1-3 times a year	57	20 (19-21.5)	23 (20-24)	19 (15-20)	15 (12.5-16)	8 (7-9.5)	85 (77-89)
Between 4-6 times a year	7	19 (16-23)	22 (22-24)	18 (16-20)	15 (13-17)	8 (7-8)	85 (74-89)
More than 6 times a year	5	19 (15.5-22.5)	20 (14.5-27)	20 (16.5-24.5)	16 (13.5-20)	8 (7.5-10)	88 (70-99)
$\chi^2$		0.576	1.329	1.355	1.079	2.569	0.023
<i>p</i>		0.902	0.720	0.716	0.782	0.463	0.999
<i>Post-hoc</i>		-	-	-	-	-	-
<b>Your fear level of visiting the dentist</b>	<b>n</b>	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$	$\bar{x}\pm s$
I'm not afraid	64	19.98±3.16	23.25±3.73	19.09±3.47	15.41±2.9	7.83±1.7	85.56±11.64
I'm a little afraid	40	19.43±2.88	22.15±3.66	18.73±3.8	15.18±3.09	7.8±1.81	83.28±12.95
I'm afraid	19	20.53±3.58	22.89±4.51	18.32±4.33	14.84±2.93	7.68±1.95	84.26±14.79
<i>F</i>		0.856	1.016	0.356	0.281	0.048	0.415
<i>p</i>		0.427	0.365	0.701	0.756	0.953	0.661
<i>Post-hoc</i>		-	-	-	-	-	-

*t*: Independent samples *t*-test; *z*: Mann Whitney *U* test; *F*: One-way analysis of variance;  $\chi^2$ : Kruskal Wallis *H* test; *Q*<sub>2</sub>: Median; *Q*<sub>1</sub>: 25. percentile value; *Q*<sub>3</sub>: 75. percentile value \*:*p*<0.01

When comparing the scores from the scale based on the participants' reasons for coming for dental treatment, there was no significant difference found between those who came for tooth extraction and those who did not (*t*: -2.660; *p*=0.009<0.05). The scores from the Trust subscale were higher for those who did not come for tooth extraction (Table V).

#### **4. DISCUSSION**

In the participant group of 123 people, the overall score for choosing a private health institution varied between 57 and 110, resulting in an average of  $84.62 \pm 12.53$  for all participants. The scores in individual sub-dimensions were as follows: Access to Service  $19.89 \pm 3.14$ , Trust  $22.84 \pm 3.83$ , Interest  $18.85 \pm 3.7$ , Waiting Time  $15.24 \pm 2.95$ , and External Factors  $7.8 \pm 1.76$ . The scores taken from a general perspective are indicative of the reasons for preferring the private sector in oral and dental health services. Since the scale used in the study inherently contains a comparison of private and public due to its purpose of creation, individuals prefer the private sector for all factors such as access to service, interest, trust, external institutional factors, and waiting time. Moreover, the absence of any significant difference in sociodemographic variables indicates that there is no differentiation in preference fundamentally. When comparing the scores from the scale based on the participants' reasons for coming for dental treatment, there was no significant difference found between those who came for tooth extraction and those who did not. The scores from the Trust subscale were higher for those who did not come for tooth extraction, indicating that this variable did not play a discriminating role in the preference of the private sector. When all these three findings are considered holistically, it contains signs that individual characteristics and reasons for coming to the dentist, fears, and frequencies do not make a difference in preferring the private, but there are signs that the private could lead to a more common preference over the public in many issues. However, the way to arrive at such a conclusion exactly could be possible by conducting a study on the reasons for not preferring the private in participants who also prefer the public. Also, due to research limitations, the fact that the study was conducted in a specific clinic limits the reasons to individuals who came to the clinic and requires considering that it could contain differences in a rural or less cosmopolitan area. Indeed, in a study conducted in Finland, it was stated that access to dentists was significantly unevenly distributed in geographical regions such as rural and urban in terms of the number of dentists and that this situation affected both price and consumer preferences. (Nguyen & Häkkinen, 2006).

In the literature, it is stated that dental caries, which are among preventable dental disorders, are directly related to the effectiveness of preventive services (Brennan & Spencer, 2005; Hajek et al., 2021; Mittal et al., 2019). In our study, a significant difference was detected in the high levels of issues related to "Trust", one of the reasons for preferring a private health institution for those who did not come due to dental caries. This situation can be accepted as an indication that trust is an important and distinguishing factor in receiving dental treatment. Additionally, the importance of trust in oral and dental health being significant enough to come to the fore may also indicate the necessity to place higher importance on preventive services due to the significant distinction of individual concerns. Furthermore, the low

proportion of health expenditure spent on preventive dentistry services in Turkey (1.6% in 2012) and weaknesses in the integration of dentistry services in primary health institutions into the general health system should be emphasized as indications that it results from necessities rather than patients' preferences while complicating health access (Kavşur & Sevimli, 2021).

In their research, Koh and colleagues (2022) identified the three most important factors influencing the choice of private dental health service providers over public institutions as the goodness of facilities and equipment in a dental clinic (86%), the better reputation and work experience of the dentist (85.1%), and the trust in the technical competence of the dentist (83.9%). Fernandez and Aldayel (2016) in their study conducted in the city of Riyadh in Saudi Arabia, determined that 53.2% of 634 patients preferred a private clinic and that gender, ethnicity, and employment status did not play a distinguishing role in this matter. In this research, variables such as gender, marital status, age, and income level do not make a significant difference in terms of reasons for preferring a private health institution among participants and can be evaluated as a similar finding. On the other hand, another study states that a consumer-oriented health service delivery style is highly developed in oral and dental health services, and considering the personnel number, demand fulfillment capacity, and the ability to catch increasing trends of the public, it is mentioned that the private sector is far ahead (Gray et al., 2021). Similarly, in their study, Koh and colleagues (2022) touched upon the significant role of factors such as office arrangement and cleanliness in preference. In addition to studies conducted in the private sector, it has been determined that total quality management practices implemented in a public oral and dental health center in Yalova resulted in an increase in satisfaction rate from 39.5% to 75.9% (Özcan et al., 2013). This finding suggests that certain managerial activities aimed at increasing satisfaction could potentially lead to a preference towards the public sector in the future, despite the private sector being an option.

In developed OECD (Organisation for Economic Co-operation and Development) countries, the rate of coverage for dental health services with public funds is higher compared to other countries (Pälvärinne et al., 2018). Although this study does not yield a significant result based on income level, this is due to the study being conducted among participants who can afford out-of-pocket payments and therefore are already able to visit the clinic. Additionally, 25.2% of the participants visiting the clinic reported that their income level was less than their expenses. A study conducted in China pointed out that out-of-pocket expenditures on dental treatment, which rose above 20% for 10% of households, could represent a significant and devastating force on household finance (Sun et al., 2016).

## **5. CONCLUSION**

In our study aiming to determine the reasons for choosing private sector dental health services, the high scores in all dimensions for choosing the private sector indicate that the public needs to improve itself

to compete with the private sector in terms of oral and dental health. In addition, the fact that participants interpret the private sector with the dimension of interest, which they gave the highest score, could be considered as the most successful part when the limitations of the private study are not ignored. These and all other results can only be evaluated for individuals treated at a specific clinic, so it would not be correct to generalize. The results could be different in rural or less cosmopolitan areas. However, we believe that it provides certain indications in a cross-sectional sense.

On the other hand, it can also serve as an example suggesting that private healthcare providers should strive to increase customer satisfaction by taking these factors into account. Improving the quality and accessibility of the service could be a strategy for attracting more patients. Also, emphasizing the element of trust plays an important role among the reasons why patients prefer private dental health services. Health service providers must also strive to establish a trustworthy relationship with their patients in oral and dental health. Understanding the factors that play a role in the preference of service can provide important information for policy makers and health service providers. Additionally, it is anticipated that an increase in public employment will also make a significant contribution in this regard. We believe that future comprehensive studies that will evaluate different aspects can be beneficial, especially studies that aim to determine the motivations of those who prefer public health services and examine why they do not prefer the private sector. The limited resources in the literature on the subject during the study is another important result, and we emphasize the need to increase the studies conducted.

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### **Conflict of Interest**

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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