

AN ANALYSIS OF FACTORS AFFECTING PERCEIVED ACCESS TO HEALTHCARE SERVICES: THE CASE OF ISTANBUL¹

SAĞLIK HİZMETLERİNE ERİŞİM ALGISINI ETKİLEYEN FAKTÖRLERİN ANALİZİ: İSTANBUL ÖRNEĞİ

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Abstract: Purpose: The main purpose of this study is to reveal that access to health services is not limited to physical proximity. In particular, it aims to examine the individual, economic, technological, and structural factors that affect individuals' perception of access to health services within a multidimensional framework. It also aims to develop policy recommendations in this direction.

Scope: The research covers individuals living in the districts of Bakırköy, Başakşehir, Küçükçekmece, and Ümraniye in Istanbul. The study comparatively examines the perceptions of access to healthcare services among individuals living in districts with different socioeconomic characteristics.

Method: A quantitative research method was used in the study. Data were collected from individuals forming the sample group using the "Perceived Access to Health Care Questionnaire". The scale consists of four sub-dimensions: accessibility, availability, suitability, and acceptability. The data obtained were evaluated using statistical analysis methods.

Findings: According to the research findings, it was determined that participants had the highest perception regarding the accessibility dimension of health services. On the other hand, serious problems were identified in the reachability dimension. In particular, physical transportation difficulties to Çam and Sakura City Hospital in Başakşehir district negatively affected individuals' perception of reachability. Furthermore, the high economic burden of healthcare services and the failure of public healthcare institutions to meet expectations in terms of capacity and service quality constitute a problem. This situation has significantly reduced the satisfaction level of participants. It was found that individuals with low socioeconomic status had a weaker perception of access to healthcare services. Again, this situation demonstrated the persistence of inequalities in the healthcare field. While individuals with access to technological tools were found to have a higher perception of access, those unable to benefit from digital opportunities were found to have a low perception of access.

Conclusion: This study reveals that trust in the healthcare system in Türkiye, perceived service quality, and healthcare policies are shaped by individuals' daily experiences. The findings indicate that access to healthcare services needs to be re-examined with an equitable, sustainable, and inclusive approach. In particular, the development of policies aimed at improving accessibility, affordability, and reducing digital inequalities is a fundamental requirement for the Turkish healthcare system.

Keywords: Technology, Health, Service, Perception, Individual, Society, Healthcare Institutions, Public Administration, Digitalization

Öz: Amaç: Bu çalışmanın temel amacı, sağlık hizmetlerine erişimin yalnızca fiziksel yakınlıkla sınırlı olmadığını ortaya koymaktır. Özellikle bireylerin sağlık hizmetlerine erişim algısını etkileyen bireysel, ekonomik, teknolojik ve yapısal faktörleri çok boyutlu bir çerçevede incelemektir. Ayrıca bu doğrultuda politika önerileri geliştirmektedir.

Kapsam: Araştırma, İstanbul ilinde yer alan Bakırköy, Başakşehir, Küçükçekmece ve Ümraniye ilçelerinde yaşayan bireyleri kapsamaktadır. Çalışma, farklı sosyoekonomik özelliklere sahip ilçelerde yaşayan bireylerin sağlık hizmetlerine erişim algılarını karşılaştırmalı olarak ele almaktadır.

Yöntem: Araştırmada nicel araştırma yöntemi kullanılmıştır. Veriler, örneklem grubunu oluşturan bireylerden "Sağlık Hizmetlerinde Algılanan Erişim Ölçeği" aracılığıyla toplanmıştır. Ölçek; erişilebilirlik, ulaşılabilirlik, uygunluk ve kabul edilebilirlik olmak üzere dört alt boyuttan oluşmaktadır. Elde edilen veriler istatistiksel analiz yöntemleriyle değerlendirilmiştir.

Bulgular: Araştırma bulgularına göre katılımcıların sağlık hizmetlerine ilişkin en yüksek algıya erişilebilirlik boyutunda sahip oldukları tespit edilmiştir. Buna karşın, ulaşılabilirlik boyutunda ciddi sorunlar yaşandığı belirlenmiştir. Özellikle Başakşehir ilçesinde bulunan Çam ve Sakura Şehir Hastanesi'ne yönelik fiziksel ulaşım güçlükleri, bireylerin ulaşılabilirlik algısını olumsuz etkilemiştir. Ayrıca sağlık hizmetlerinin ekonomik yükünün yüksek olması ve kamu sağlık kurumlarının kapasite ve hizmet kalitesi açısından beklentileri karşılayamaması sorunu oluşturmaktadır. Bu durum katılımcıların memnuniyet düzeyini önemli ölçüde düşürmüştür. Sosyoekonomik düzeyi düşük bireylerde sağlık hizmetlerine erişim algısının daha zayıf olduğu saptanmıştır. Yine bu durum sağlık alanındaki eşitsizliklerin sürdüğünü göstermiştir. Teknolojik araçlara erişimi olan bireylerde daha yüksek erişim algısı gözlemlenirken, dijital olanaklardan yararlanamayan bireylerde erişim algısının düşük olduğu belirlenmiştir.

Sonuç: Bu çalışma, Türkiye'de sağlık sistemine duyulan güvenin, algılanan hizmet kalitesinin ve sağlık politikalarının bireylerin günlük deneyimleri üzerinden şekillendiğini ortaya koymaktadır. Bulgular, sağlık hizmetlerinde erişimin eşitlikçi, sürdürülebilir ve kapsayıcı bir yaklaşımla yeniden ele alınması gerektiğini göstermektedir. Özellikle ulaşılabilirlik, ekonomik karşılanabilirlik ve dijital eşitsizliklerin azaltılmasına yönelik politikaların geliştirilmesi, Türkiye sağlık sistemi açısından temel bir gereklilik olarak öne çıkmaktadır.

Anahtar Kelimeler: Teknoloji, Sağlık, Hizmet, Algı, Birey, Toplum, Sağlık Kurumları, Kamusal Yönetim, Dijitalleşme

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INTRODUCTION AND THEORETICAL FRAMEWORK

Access to healthcare services is one of the most fundamental factors affecting the health status of individuals and societies. This situation is important in terms of the quality and management of healthcare services (Çınaroğlu, 2017). In many developed and developing countries around the world, the differences between the quality of healthcare services provided and the perceived quality have been of great importance to healthcare policymakers (Akman & Kopuz, 2020).

For this reason, the fundamental goal of established healthcare systems is to ensure that individuals can access healthcare services in a timely manner, at the most appropriate cost, and in line with their needs (Delice et al., 2022). In this context, access should not be evaluated solely in physical terms. It is not limited to reaching a healthcare facility but also involves a multidimensional structure that includes the acceptability of the service and individuals' capacity to use these services as well as the manner in which the service is delivered (Coombs et al., 2022). Due to this multifaceted nature of access, it can become even more complex, particularly in the experiences of individuals living in large cities (Tahmasebi, 2023). Within the Turkish context, identifying differences in access to healthcare services in densely populated, socioeconomically diverse metropolises like Istanbul is crucial for ensuring equity in healthcare delivery.

According to the guidelines published by the World Health Organization (WHO), access to health services is defined as part of the right

to health, and equal and continuous access to these services is mandatory (Sarıhan, 2021). Furthermore, equality and continuity in access to these health services are highlighted as key elements in protecting public health. However, the healthcare system faces many structural, socioeconomic, and cultural barriers in achieving this ideal structure. In particular, demographic characteristics such as the income level, education level, age, gender, and occupational group of individuals in the community, as well as the type and number of healthcare institutions in their region or geography, are among the most important determinants (Yetim & Çelik, 2020). Whether individuals have health insurance and access to technological tools, how they perceive health services, and their capacity to benefit from these services are quite important in terms of these factors. This is because the sociodemographic structure of society, education, economic power and per capita income distribution, technological infrastructure, population density, the number of institutions providing healthcare services, the type of healthcare institutions, and their areas of expertise are among the most important determinants of perceived healthcare (Atalay & Yücel, 2023).

Generally, when evaluated in this context, the concept of "perceived access" to healthcare services gains importance as a structure that encompasses individuals' subjective assessments of their access to healthcare services and their overall experiences (Yıldız, 2019). The quality and level of access perceived by society and individuals reveals the individual's confidence in the current

healthcare system, their satisfaction with healthcare institutions, and how they evaluate the ease of accessing services. This assessment plays a crucial role in shaping general perceptions of the quality of healthcare services at the societal level, as it can directly influence an individual's decision on how or to what extent to utilize the healthcare system (Korkmaz & Çuhadar, 2017).

This study examines the perception of access to healthcare services among individuals living in Istanbul and the sample areas of Bakırköy, Başakşehir, Küçükçekmece, and Ümraniye. Within the scope of the study's purpose and scope, the demographic and socioeconomic factors affecting this perception were comprehensively analyzed. The "Perceived Access to Healthcare Scale" used in this study is a four-dimensional scale consisting of accessibility, acceptability, appropriateness, and availability, the validity and reliability of which have been established in a previous study. This study was prepared using the scale presented in the article by Yılmaz and colleagues (2025). The scale used in this study was adapted to our research with written consent and permission from those who contributed to its development. As a result of the reliability analyses conducted on the research scale used in this study, it was determined that the scale has a high level of internal consistency (Cronbach's Alpha 0.972). This result demonstrates that the study is methodologically sound and that the measurement tool used has high scientific validity.

According to the research findings, the dimension with the highest perception level among participants was "accessibility" (Mean=3.41), while the dimension with the lowest perception level was "reachability" (Mean=2.61). This situation reveals that difficulties in physically accessing healthcare institutions in a large city like Istanbul can negatively affect individuals' overall perception of the healthcare system. Again, within the scope of the research, 77.9% of participants stated that the fees paid for healthcare services were quite high, while 32.8% rated the general healthcare system as poor. These data reveal widespread economic dissatisfaction with and structural criticism of the healthcare system. Although this information requires evaluation in terms of results, it is important for compiling the literature section of the study.

When examining the findings and results of numerous scientific research studies, the concept of access to healthcare services emphasizes its importance in terms of the exercise of individual health rights. This concept, which is a determining factor, is not parallel to the existence of services but to the quality of service that individuals feel and perceive. The existence of services provided or offered necessitates convenience for service recipients in terms of physical, economic, cultural, and accessibility aspects (Afşar, 2019).

Some studies have also found that, especially for individuals living in urban areas, physical transportation options must be planned comprehensively to enable them to reach healthcare institutions as quickly as possible.

It is known that in many developed and developing countries around the world, individuals' physical access to healthcare institutions is facilitated in every way possible. Therefore, it is imperative that healthcare providers or those developing healthcare policies place greater emphasis on infrastructure development in this direction (Ayoğlu, 2024).

Among the findings obtained in this research study, the lowest rating from participants was for the "accessibility" dimension. One of the most important reasons for this is the presence of Çam Sakura City Hospital in the Başakşehir district, which is part of the Istanbul universe included in the study sample. This hospital is a public health institution with a large capacity. However, unfortunately, physical access to this health institution is not possible from all parts of Istanbul province. This is because the infrastructure transportation services are inadequate or even non-existent. However, limited transportation options are available based on time constraints using personal vehicles or city transportation such as buses, taxis, and minibuses.

There are many models developed regarding access to healthcare services and transportation. These models will be comprehensively addressed and evaluated in the later stages of this study. However, it reveals that the perception of accessibility is considered a very important dimension or factor, especially in terms of the geographical location of healthcare institutions and ease of transportation (Akgış İlhan, 2020). Similarly, many scientific studies conducted in Türkiye

have revealed that the irregular distribution of services, especially in metropolitan areas, problems in transportation infrastructure, and issues related to hospital congestion make it difficult for individuals to access healthcare services. Similar situations are also observed in international scientific studies (Cu et al., 2021).

According to the results of this research study, the dimension with the highest perception level is "accessibility," reflecting individuals' ability to benefit from the service and their awareness of the service's existence. However, when this perception of access is combined with accessibility problems, it leads to a decrease in overall satisfaction with the system. Indeed, the fact that approximately 78% of the participants in the study found the fees paid for health services to be high is significant in this regard. This highlights that economic access is also an important problem area. Economic access restricts individuals' access to healthcare services and is directly related to individual perceptions of the cost of healthcare services. This is because individuals with low income levels experience more difficulties in this regard and encounter obstacles in accessing healthcare services. Some scientific studies conducted in Türkiye have also revealed that the high costs of services received at private healthcare institutions and the inadequacy of services at public hospitals in some cases cause individuals to face a dilemma and lead to dissatisfaction (Yıldız et al., 2024).

Furthermore, the fact that 32.8% of the participants in the study rated the healthcare system as "poor" in general indicates that

there is a perception of distrust not only at the individual level but also at the societal level. This situation can be explained in the literature by the concepts of "systemic satisfaction" or "institutional trust," showing that individuals' trust in the healthcare system is shaped in parallel with their experiences of accessing services. In particular, problems related to service quality, such as economic difficulties and bureaucratic obstacles encountered when accessing healthcare services, cause individuals to form negative judgments about the functioning of the system (Yeşildal et al., 2020).

Therefore, we can say that the healthcare system is shaped not only by its physical or technical infrastructure but also by individuals' perceptions and experiences. When evaluating the studies in the current literature, it is evident that access problems can reduce the use of healthcare services at the individual level and also deepen health inequalities at the societal level. In this context, the findings of this research are quite consistent with the general trends in the literature. Based on this study and its findings, we can point out that health policies need to be re-examined in a way that improves both physical and economic access (Solmaz, 2021).

According to the results of the analysis based on demographic variables, it has been determined that socioeconomic status has a significant effect on the perception of access to health services. It is quite important that individuals with low socioeconomic status score lower in terms of accessibility, acceptability, and appropriateness. This is

because this dimension clearly reveals the existence of social inequalities in accessing health services. Similarly, the fact that individuals who consider themselves sufficiently equipped to access healthcare services using technological communication tools have a higher perception of access also demonstrates how the digital divide in other geographical and rural regions of Türkiye affects access to healthcare services (Kutlu, 2020).

This study revealed significant differences in participants' perceptions of access based on the healthcare institutions they typically use. The significantly lower access scores of individuals receiving services from public healthcare institutions indicate that service delivery in private healthcare institutions is perceived as more satisfactory. This situation clearly shows that public healthcare services fall short of meeting individuals' expectations when evaluated in terms of capacity, speed, and quality.

The fact that the study was conducted in a heterogeneous city like Istanbul made it possible to compare experiences of access to healthcare services among different age groups, occupational groups, educational levels, and social classes. This situation also shows that micro-level differences must be taken into account in the development of health policies. Access to healthcare is not a process that occurs solely through individual effort. This structure is also an indicator of whether the existing system is fair and inclusive among individuals.

When our findings in this study are evaluated in general terms, inequalities in access to

healthcare services have emerged, emphasizing the need to support individuals with low socioeconomic status and the importance of structuring the digitization process of healthcare services in a way that increases access. These findings and data are indicative for health planning, resource allocation, and health literacy policies, and contribute to efforts or studies aimed at building a more inclusive and equitable healthcare system.

RESEARCH FINDINGS

First, the reliability of the perceived access to health care questionnaire was assessed using the Cronbach Alpha coefficient. The normality of the total and subscale scores of the perceived access scale to healthcare services according to the demographic characteristics of the participants was examined using the Kolmogorov-Smirnov (Lilliefors, 1967) and Shapiro-Wilk (Shapiro & Wilk, 1965) tests. Missing observations in the participants' gender status were imputed using the Expectation-Maximization (EM) method to maximize the expectation. For comparing scale scores that did not follow a normal distribution according to participants' demographic characteristics, the Mann Whitney U test was used for two- -group comparisons, and the Kruskal Wallis H test was used for comparisons involving at least three groups. When the Kruskal-Wallis H test revealed a significant difference, multiple comparisons were examined using the Bonferroni-corrected Dunn test. The analysis results were presented as mean, standard deviation (Mean±SD), median, minimum, and maximum (Median (Min.-Max.)) for

quantitative data, and as frequency (n) and percentage for categorical data. In all calculations and interpretations, the statistical significance level of "p<0.05" was considered. The data were analyzed using the IBM SPSS 27 program (IBM Corp, 2020).

Limitations of the Study Limitations

This study was limited to Istanbul province, with Istanbul and four districts (Bakırköy, Başakşehir, Küçükçekmece, Ümraniye) selected as the sample. The findings obtained after the research are based on the perceptions of individuals living in these districts. Therefore, broader generalization is limited. Although the socio-economic differences of the participants were taken into account, some groups may not have been adequately represented. Since the data collected through the survey method reflects the subjective assessments of individuals, differences between perception and reality may occur. Again, the representation rate of individuals with low digital access levels remained limited within the study.

Data Collection Method

This research adopted a quantitative research method, and data were collected using a survey technique. The surveys were distributed to participants both through face-to-face interviews and online via Google Forms. Nearly all participants were included in the research through their social media accounts. All participants volunteered to take part in this research. Individuals living in four districts of Istanbul (Bakırköy, Başakşehir, Küçükçekmece, Ümraniye) were included in the study as a sample. The scale used in the



study, the " Perceived Access to Health Care Questionnaire" was developed by Yilmaz and colleagues (2025). The scale is a tool that has undergone validity and reliability studies. The scale used in the study consists of four sub-dimensions. These are accessibility, availability, suitability, and acceptability. Written consent and permission were obtained from the developers for the scale used in this study, and it was used within the scope of the study. As a result of the reliability analysis within the scope of the research, the Cronbach Alpha value was calculated as 0.972, and it was determined that the scale had a high degree of internal consistency.

In this study, the research was conducted in accordance with scientific research and

publication ethics, within the framework of national and international ethical principles. Data were collected with informed voluntary consent from participants; personal information was kept confidential and not shared with third parties. After the completion of the research process, all data were permanently destroyed. Participants' rights were respected in accordance with legal regulations; no pressure, guidance, or coercion was applied during the data collection process. All necessary ethical and usage permissions were obtained for the scale used. Citations in the study were made in accordance with academic rules; no manipulation or falsification was performed during the data collection, analysis, and reporting processes.

Table 1. Reliability Results for the Perceived Access to Health Care Questionnaire

Item	Mean	SS	DMK	MSA	Cronbach's Alpha
Accessibility					
S1	3,331	1,179	0.688	0.898	0.898
S2	3,632	1,156	0.788	0.863	
S3	3,266	1.254	0.783	0.864	
S4	3,401	1.250	0.836	0.844	
Acceptability					
S5	3,266	1,222	0.756	0.944	0.947
S6	3,219	1.120	0.836	0.938	
S7	3,003	1.111	0.823	0.939	
S8	3,144	1.136	0.869	0.936	
S9	3,030	1.175	0.842	0.938	
S10	2,868	1.178	0.813	0.940	
S11	3,241	1.123	0.822	0.939	
S12	3,179	1.198	0.708	0.947	
Compatibility/Suitability					
S13	3,219	1,093	0.747	0.945	0.948
S14	3,107	1.234	0.754	0.945	
S15	3,154	1.163	0.815	0.940	
S16	3,095	1.252	0.767	0.944	
S17	3,311	1.211	0.838	0.939	
S18	3,241	1.183	0.875	0.936	
S19	3,366	1.206	0.842	0.938	
S20	3,107	1.148	0.836	0.939	
Accessibility					
S21	2,634	1,360	0.819	0.869	0.909
S22	2,612	1.338	0.883	0.813	

S23	2,570	1.285	0.756	0.920
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Avg: Average, SD: Standard deviation, AITC: Adjusted item total correlation, MSA: Cronbach's Alpha when item is deleted

Table 1 presents the Cronbach's Alpha internal consistency coefficients and item-total correlation coefficients for the subscales of the perceived access scale in healthcare services. The Cronbach's Alpha reliability coefficients for the accessibility, acceptability, compatibility/suitability, and availability dimensions were obtained as 0.898, 0.947, 0.948, and 0.909, respectively. The item-total

correlation coefficients for the subscales were found to be greater than 0.30. The overall Cronbach's alpha coefficient for the scale, consisting of 4 subscales and 23 items, was found to be 0.972. When the reliability analysis findings were examined, it was determined that the perceived access scale in healthcare services was highly reliable in terms of internal consistency.

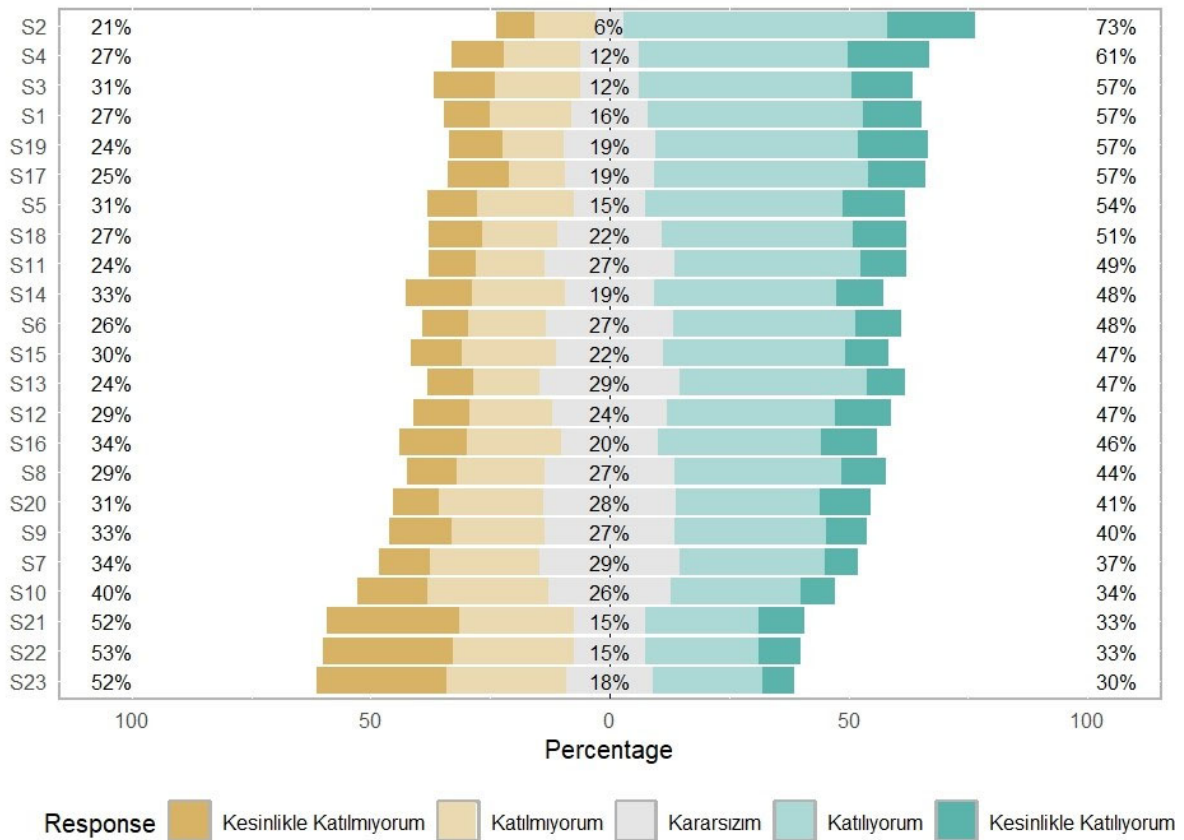


Figure 1. Distribution of Responses to Items on the Perceived Access to Healthcare Scale

Figure 2 shows the Likert-type distributions of participants' responses to the items of the perceived access to health services scale. According to the results, the item with the

highest level of agreement was S2 (question 2), while the item with the lowest level of agreement was S23 (question 23).

**Table 2.** Distribution of Participants' Responses to Items on the Perceived Access to Health Care Questionnaire

Item	n	%
S1		
Strongly disagree	39	9.7
I disagree	68	16.9
Undecided	65	16.2
I agree	181	45
I definitely agree	49	12.2
S2		
Strongly disagree	32	8
I disagree	51	12.7
Undecided	24	6
I agree	221	55
I definitely agree	74	18.4
S3		
Strongly disagree	51	12.7
I disagree	72	17.9
Undecided	49	12.2
I agree	179	44.5
Strongly agree	51	12.7
S4		
Strongly disagree	44	10.9
I disagree	64	15.9
Undecided	50	12.4
I agree	175	43.5
I definitely agree	69	17.2
S5		
Strongly disagree	42	10.4
I disagree	81	20.1
Undecided	60	14.9
I agree	166	41.3
Strongly agree	53	13.2
S6		
Strongly disagree	38	9.5
I disagree	65	16.2
Undecided	108	26.9
I agree	153	38.1
I definitely agree	38	9.5
S7		
Strongly disagree	42	10.4
I disagree	93	23.1
Undecided	117	29.1
I agree	122	30.3
Strongly agree	28	7
S8		
I definitely disagree	41	10.2
I disagree	74	18.4
Undecided	110	27.4
I agree	140	34.8
Strongly agree	37	9.2
S9		
Strongly disagree	53	13.2



	I disagree	78	19.4
	Undecided	109	27.1
	I agree	128	31.8
	Strongly agree	34	8.5
S10			
	Strongly disagree	59	14.7
	I disagree	102	25.4
	Undecided	103	25.6
	I agree	109	27.1
	I definitely agree	29	7.2
S11			
	Strongly disagree	40	10
	I disagree	57	14.2
	Undecided	110	27.4
	I agree	156	38.8
	Strongly agree	39	9.7
S12			
	Strongly disagree	47	11.7
	I disagree	70	17.4
	Undecided	96	23.9
	I agree	142	35.3
	Strongly agree	47	11.7
S13			
	Strongly disagree	39	9.7
	I disagree	56	13.9
	Undecided	117	29.1
	I agree	158	39.3
	Strongly agree	32	8
S14			
	I definitely disagree	56	13.9
	I disagree	78	19.4
	Undecided	75	18.7
	I agree	153	38.1
	Strongly agree	40	10
S15			
	Strongly disagree	43	10.7
	I disagree	79	19.7
	Undecided	90	22.4
	I agree	153	38.1
	Strongly agree	37	9.2
S16			
	Strongly disagree	57	14.2
	I disagree	79	19.7
	Undecided	82	20.4
	I agree	137	34.1
	Strongly agree	47	11.7
S17			
	I definitely disagree	52	12.9
	I disagree	47	11.7
	Undecided	75	18.7
	I agree	180	44.8
	I definitely agree	48	11.9
S18			
	Strongly disagree	45	11.2
	I disagree	64	15.9



	Undecided	87	21.6
	I agree	161	40
	I definitely agree	45	11.2
S19			
	Strongly disagree	45	11.2
	I disagree	51	12.7
	Undecided	77	19.2
	I agree	170	42.3
	Strongly agree	59	14.7
S20			
	Strongly disagree	38	9.5
	I disagree	88	21.9
	Undecided	112	27.9
	I agree	121	30.1
	I definitely agree	43	10.7
S21			
	Strongly disagree	112	27.9
	I disagree	96	23.9
	Undecided	60	14.9
	I agree	95	23.6
	Strongly agree	39	9.7
S22			
	Strongly disagree	110	27.4
	I disagree	102	25.4
	Undecided	59	14.7
	I agree	96	23.9
	Strongly agree	35	8.7
S23			
	Strongly disagree	109	27.1
	I disagree	101	25.1
	Undecided	73	18.2
	I agree	92	22.9
	Strongly agree	27	6.7

Table 2 presents the distribution findings of participants' responses to the items of the perceived access to health care questionnaire. As shown in Figure 1, the item with the

highest participation level was S2 (question 2), while the item with the lowest participation level was S23 (question 23).

Table 3. Descriptive Findings for Total and Subscale Scores of the Healthcare Access Scale

Variable	Mean ± SD	Median (min.-max.)
Accessibility	3.41 ± 1.06	3.75 (1 - 5)
Acceptability	3.12 ± 0.99	3.25 (1 - 5)
Compatibility/Suitability	3.2 ± 1.02	3.38 (1 - 5)
Accessibility	2.61 ± 1.22	2.33 (1 - 5)
Access	3.13 ± 0.95	3.26 (1 - 5)

Avg.: Average, SD: Standard deviation, min.: Minimum, max.: Maximum

Table 3 presents descriptive findings for the total and subscale scores obtained from the perceived accessibility scale in healthcare

services. The mean score for the accessibility dimension was 3.41, the mean score for the acceptability dimension was 3.2, the mean



score for the compatibility/suitability dimension was 3.2, and the mean score for the availability dimension was 2.61. The mean

access score, which represents the total score of the scale, was found to be 3.13.

Table 4. Descriptive Statistics of Participants' Demographic Characteristics

Variable	n	
Gender		
Female	281	69.9
Male	121	30.1
Age		
18-20	8	2
21-25	12	3
26-30	50	12.4
31-40	95	23.6
41-50	114	28.4
51-65	105	26.1
66	18	4.5
Occupation		
Student	13	3.2
Worker	116	28.9
Civil servant	49	12.2
Self-employed	83	20.6
Retired	95	23.6
Not working	46	11.4
Education		
Literate	3	0.7
Primary education	34	8.5
High School	103	25.6
College – University	216	53.7
Master's Degree Doctorate	46	11.4
Socio-Economic Level		
Low	58	14.4
Medium	297	73.9
High	47	11.7
Marital Status		
Single	142	35.3
Married	260	64.7
Place of Residence		
City	349	86.8
District	52	12.9
Village	1	0.2
Types of Healthcare Facilities in the Area of Residence		
Family Health Clinic	40	10
Hospital	59	14.7
Training Hospital	10	2.5
University Hospital	7	1.7
All	285	70.9
None	1	0.2
Chronic Disease		
No	290	72.1
Yes	112	27.9
Competence in Accessing Healthcare Institutions Using Technological Communication Tools		
No	63	15.7



Yes	339	84.3
Type of Health Insurance		
SGK	348	86.6
General Health Insurance	33	8.2
Green Card	2	0.5
None	19	4.7
Private Health Insurance		
No	243	60.4
Yes	159	39.6
Healthcare Institution Where Services are Usually Received		
Public Institutions	102	25.4
Private Healthcare Institutions	83	20.6
Both Institutions	217	54
Health Institutions from Which Services Were Received and Experiencing Legal or Other Issues		
No	361	89.8
Yes	41	10.2
How Do You Rate Our Country's Healthcare System?		
Good	74	18.4
Neither Good Nor Bad	196	48.8
Bad	132	32.8
How Do You Rate the Fees Paid for Healthcare Services?		
Low	8	2
Normal	81	20.1
High	313	77.9

Table 4 presents descriptive findings regarding the demographic characteristics of the participants included in the study. 69.9% of the participants were female, and 30.1% were male. When examining the age distribution, the largest age group was in the 41-50 age range, accounting for 28.4%. Among the occupational groups of the participants, the largest proportion, 28.9%, was in the worker category. When the educational levels of the participants were examined, 53.7% were found to be college or university graduates. In terms of socioeconomic status, 73.9% of the participants stated that they were middle class. In terms of marital status, 64.7% of participants are married. When examining the places of residence of participants, 86.8% live in cities. Regarding the health institutions in their region, 70.9% of participants stated

that all types of health institutions are available in their region. 27.9% of participants have a chronic disease. The percentage of participants who consider themselves proficient in using technological communication tools to access healthcare institutions is 84.3%. In terms of health insurance, 86.6% of participants are insured under the Social Security Institution (SGK). 39.6% of participants have private health insurance. When examining the institutions where health services are received, 54% of participants stated that they receive services from both public and private health institutions. In terms of experiencing legal or other problems with the health institutions where services are received, 10.2% of participants reported having such an experience. When examining participants' assessments of the healthcare system, 48.8%

rated the healthcare system as neither good nor bad, 32.8% rated it as bad, and 18.4% rated it as good. Regarding the level of fees

paid for healthcare services, 77.9% of participants rated healthcare service fees as high.

Table 5. Analysis of Accessibility Dimension Scores by Demographic Characteristics

Variable	Mean ± SD	Median (min.-max.)	Test Stat.	p
Gender				
Female	3.4 ± 0.99	3.75 (1 - 5)	-0.028	0.978 ^m
Male	3.4 ± 1.2	3.75 (1 - 5)		
Age				
18-20	3.7 ± 0.82	4 (1.75 - 4.25)	10.465	0.106 ^h
21-25	4 ± 0.35	4 (3 - 4.5)		
26-30	3.3 ± 1.14	3.5 (1 - 5)		
31	3.5 ± 1.02	3.75 (1 - 5)		
41-50	3.5 ± 0.97	3.88 (1 - 5)		
51-65	3.2 ± 1.19	3.5 (1 - 5)		
66	3.1 ± 0.96	3.38 (1 - 4.25)		
Occupation				
Student	3.4 ± 0.99	4 (1.25 - 4.25)	9.072	0.106 ^h
Worker	3.5 ± 1.02	3.75 (1 - 5)		
Clerk	3.6 ± 0.97	3.75 (1 - 5)		
Self-employed	3.5 ± 1.2	4 (1 - 5)		
Retired	3.1 ± 1.02	3.5 (1 - 5)		
Not working	3.5 ± 1.01	4 (1 - 5)		
Educational Status				
Literacy	2.2 ± 1.61	1.5 (1 - 4)	10,296	0.051 ^h
Primary education	3 ± 1.33	3.13 (1 - 5)		
High School	3.3 ± 1.08	3.5 (1 - 5)		
College – University	3.5 ± 1.03	3.75 (1 - 5)		
Master's Degree Doctorate	3.8 ± 0.67	4 (2.25 - 5)		
Socio-Economic Level				
Low	3 ± 1.12	3 (1 - 5) ^b	12.994	0.002^h
Medium	3.5 ± 1.03	3.75 (1 - 5) ^a		
High	3.6 ± 1.05	4 (1 - 5) ^a		
Marital Status				
Single	3.3 ± 1.07	3.75 (1 - 5)	-0.938	0.348 ^m
Married	3.5 ± 1.05	3.75 (1 - 5)		
Place of Residence				
City	3.4 ± 1.06	3.75 (1 - 5)	-1.125	0.261 ^m
District	3.3 ± 1.03	3.5 (1 - 5)		
Types of Healthcare Facilities in the Area of Residence				
Family Health Clinic	2.8 ± 0.95	2.75 (1 - 4.25) ^b	22.959	<0.001^h
Hospital	3.2 ± 1.11	3.5 (1 - 5) ^{ab}		
Teaching Hospital	3.2 ± 1.17	3.25 (1.5 - 5) ^{ab}		
University Hospital	3.6 ± 1.26	4.25 (1.25 - 4.75) ^{ab}		
All	3.5 ± 1.02	4 (1 - 5) ^a		
Chronic Disease				
No	3.4 ± 1.05	3.75 (1 - 5)	-1.255	0.210 ^m
Yes	3.3 ± 1.07	3.5 (1 - 5)		
Adequacy in Accessing Healthcare Institutions Through Technological Communication Tools				
No	3 ± 1.19	3 (1 - 5)	-3.183	0.001^m

Yes	3.5 ± 1.01	3.75 (1 - 5)		
Type of Health Insurance				
SGK	3.4 ± 1.05	3.75 (1 - 5)		
General Health Insurance	3.6 ± 1.2	4 (1 - 5)	2.252	0.324 ^h
None	3.6 ± 0.98	4 (1 - 5)		
Private Health Insurance				
No	3.3 ± 1.11	3.5 (1 - 5)		
Yes	3.6 ± 0.96	3.75 (1 - 5)	-1.676	0.094 ^m
Healthcare Institution Where Services are Usually Obtained				
Public Institutions	3 ± 1.16	3.13 (1 - 5) ^b		
Private Healthcare Institutions	3.6 ± 0.91	3.75 (1-5) ^a	15.282	<0.001 ^h
Both Institutions	3.5 ± 1.02	4 (1 - 5) ^a		
Experiencing Legal or Other Issues with Healthcare Institutions Providing Services				
No	3.4 ± 1.06	3.75 (1 - 5)		
Yes	3.2 ± 1.07	3.5 (1 - 5)	-1.492	0.136 ^m
How Would You Rate Our Country's Healthcare System?				
Good	4 ± 1.01	4 (1 - 5) ^a		
Neither Good Nor Bad	3.5 ± 0.99	3.75 (1 - 5) ^b	49.501	<0.001 ^h
Bad	3 ± 1.04	3.13 (1 - 5) ^c		
How Do You Rate the Fees Paid for Healthcare Services?				
Low	3.1 ± 1.18	3 (1.5 - 5) ^{ab}		
Normal	3.8 ± 1.08	4 (1 - 5) ^a	18,882	<0.001 ^h
High	3.3 ± 1.03	3.5 (1 - 5) ^b		

m: Mann Whitney U test, h: Kruskal Wallis H test, a-c: There is no difference between groups with the same letter (Bonferonni corrected Dunn test), avg.: average, SD: Standard deviation, min, max.: Minimum, maximum

Table 5 presents the comparison findings of the accessibility dimension scores of the health services access scale according to the demographic characteristics of the participants. The number of participants living in villages, with no health institutions in their region, and with green card health insurance was found to be less than 3 (Table 4). Groups with fewer than 3 observations could not be included in the analysis because reliable results could not be obtained due to the inability to estimate variance.

There was no statistically significant difference in accessibility scores according to the gender of the participants (p=0.978). No statistically significant difference was found in accessibility scores according to the age

groups of the participants (p=0.106). There is no statistically significant difference in accessibility scores based on participants' occupational groups (p=0.106). No statistically significant difference was found in accessibility scores based on participants' educational status (p=0.051). There was a statistically significant difference in accessibility scores based on participants' socioeconomic status (p=0.002). This difference was observed between participants with low socioeconomic status and those with medium and high socioeconomic status. The median accessibility score for participants with a low socioeconomic status was 3, while the median for participants with a medium socioeconomic status was 3.75 and for those

with a high socioeconomic status was 4. There was no statistically significant difference in accessibility scores based on participants' marital status ($p=0.348$). No statistically significant difference was found in the accessibility scores of participants according to the regions they lived in ($p=0.261$). There was a statistically significant difference in the accessibility scores of participants according to the types of health institutions in the regions they lived in ($p<0.001$). This difference was observed between the scores of participants who had a family health clinic in their region and those who had all types of healthcare facilities in their region. The median accessibility score for participants who had a family health clinic in their region was 2.75, while the median score for participants who had all types of healthcare facilities in their region was 4. There was no statistically significant difference in accessibility scores between participants based on their chronic disease status ($p=0.210$). There was a statistically significant difference in accessibility scores between participants based on whether they considered themselves competent in accessing healthcare institutions using technological communication tools ($p=0.001$). The median accessibility score for participants who did not consider themselves competent in accessing healthcare institutions using technological communication tools was 3, while the median score for participants who considered themselves competent was 3.75. There is no statistically significant difference in accessibility scores among participants based on their type of health insurance ($p=0.324$).

No statistically significant difference was found in accessibility scores among participants based on whether they had private health insurance ($p=0.094$). There is a statistically significant difference in accessibility scores among participants based on the healthcare institutions they usually receive services from ($p<0.001$). This difference was observed between the scores of participants who usually receive services from public institutions and those who receive services from private healthcare institutions and both types of institutions. The median accessibility score for participants who generally received services from public institutions was 3.13, while the median score for participants who generally received services from private healthcare institutions was 3.75, and the median score for participants who received services from both institutions was 4. There is no statistically significant difference in accessibility scores based on whether participants have experienced legal or other problems with the healthcare institutions they have used so far ($p=0.136$). There is a statistically significant difference in accessibility scores based on how participants evaluate our country's healthcare system ($p<0.001$). This difference is seen among all participants who evaluate our country's healthcare system as good, neither good nor bad, and bad. The highest accessibility score median value of 4 is obtained among participants who evaluate our country's healthcare system as good, while the lowest median value of 3.13 is obtained among participants who evaluate our country's healthcare system as bad. There

is a statistically significant difference in accessibility scores based on participants' assessment of the fees paid for healthcare services ($p < 0.001$). This difference was observed between the scores of participants who found the fees paid for healthcare

services to be normal and those who found the fees to be high. The median accessibility score for participants who considered the fees paid for healthcare services to be normal was 4, while the median score for participants who considered the fees to be high was 3.5.

Table 6. Analysis of Acceptability Dimension Scores According to Demographic Characteristics

Variable	Mean ± SD	Median (min.-max.)	Test Stat.	p
Gender				
Women	3.1 ± 0.93	3.25 (1 - 5)	-0.198	0.843 ^m
Male	3.1 ± 1.12	3.25 (1 - 5)		
Age				
18-20	3.6 ± 0.86	4 (1.88 - 4.5)	13.126	0.051 ^h
21-25	3.7 ± 0.49	3.63 (2.88 - 4.63)		
26-30	3 ± 1.01	3.13 (1 - 5)		
31-40	3.3 ± 0.98	3.38 (1 - 5)		
41-50	3.1 ± 0.94	3.25 (1.13 - 5)		
51-65	2.9 ± 1.04	3.13 (1 - 5)		
66	3 ± 1.14	3.19 (1 - 4.63)		
Occupation				
Student	3.2 ± 1.01	3.38 (1 - 4.5)	7.859	0.164 ^h
Worker	3.2 ± 0.94	3.25 (1 - 5)		
Clerk	3.2 ± 0.88	3.13 (1.38 - 5)		
Self-employed	3.1 ± 1.08	3.25 (1 - 5)		
Retired	2.9 ± 1	3 (1 - 5)		
Not working	3.3 ± 1.02	3.56 (1 - 5)		
Educational Status				
Literacy	2 ± 1.73	1 (1 - 4)	5.519	0.238 ^h
Primary education	2.9 ± 1.25	3.06 (1 - 5)		
High School	3 ± 1.04	3.13 (1 - 5)		
College - University	3.2 ± 0.97	3.25 (1 - 5)		
Master's Degree Doctorate	3.4 ± 0.59	3.38 (2.13 - 4.75)		
Socio-Economic Level				
Low	2.9 ± 1.05	3 (1 - 5) ^b	9.505	0.009 ^h
Moderate	3.1 ± 0.98	3.13 (1 - 5) ^{ab}		
High	3.4 ± 0.92	3.63 (1 - 5) ^a		
Marital Status				
Single	3.1 ± 0.98	3.25 (1 - 5)	-0.110	0.912 ^m
Married	3.1 ± 1	3.13 (1 - 5)		
Place of Residence				
City	3.1 ± 0.99	3.25 (1 - 5)	-0.849	0.396 ^m
District	3 ± 1.02	3 (1 - 5)		
Types of Healthcare Facilities in the Area of Residence				
Family Health Clinic	2.7 ± 1.05	2.63 (1 - 4.63) ^b	14.505	0.006 ^h
Hospital	3 ± 0.91	3 (1 - 4.88) ^{ab}		
Teaching Hospital	2.8 ± 1.17	3 (1.13 - 5) ^{ab}		
University Hospital	3.4 ± 0.96	3.63 (1.5 - 4.63) ^{ab}		
All	3.2 ± 0.98	3.25 (1 - 5) ^a		
Chronic Disease				
No	3.1 ± 0.98	3.25 (1 - 5)	-0.890	0.373 ^m

Yes	3.1 ± 1.02	3.13 (1 - 5)		
Adequacy in Accessing Healthcare Institutions Through Technological Communication Tools				
No	2.8 ± 1.15	2.88 (1 - 5)		
Yes	3.2 ± 0.95	3.25 (1 - 5)	-2.310	0.021^m
Type of Health Insurance				
SGK	3.1 ± 0.97	3.13 (1 - 5)		
General Health Insurance	3.4 ± 1.08	3.5 (1 - 5)	4.032	0.133 ^h
None	3.3 ± 1.05	3.38 (1 - 5)		
Private Health Insurance				
No	3 ± 1.04	3.13 (1 - 5)		
Yes	3.3 ± 0.89	3.38 (1 - 5)	-1.995	0.046^m
Healthcare Institution Where Services Are Usually Received				
Public Institutions	2.7 ± 1.02	2.81 (1 - 5) ^b		
Private Healthcare Institutions	3.3 ± 0.84	3.38 (1 - 5) ^a	21,020	<0.001^h
Both Institutions	3.2 ± 0.98	3.38 (1 - 5) ^a		
Health Institutions from Which Services Were Received and Experiencing Legal or Other Problems				
No	3.2 ± 1	3.25 (1 - 5)		
Yes	2.9 ± 0.86	3.13 (1 - 4.38)	-1.868	0.062 ^m
How Do You Evaluate Our Country's Healthcare System?				
Good	3.8 ± 1.01	4 (1 - 5) ^a		
Neither Good Nor Bad	3.2 ± 0.88	3.25 (1 - 5) ^b	65.885	<0.001^h
Bad	2.7 ± 0.93	2.75 (1 - 5) ^c		
How Do You Rate the Fees Paid for Healthcare Services?				
Low	3 ± 1.13	3.13 (1 - 4.75) ^{ab}		
Normal	3.6 ± 0.97	3.75 (1 - 5) ^a	27.438	<0.001^h
High	3 ± 0.95	3.13 (1 - 5) ^b		

m: Mann Whitney U test, h: Kruskal Wallis H test, a-c: There is no difference between groups with the same letter (Bonferonni corrected Dunn test), avg.: average, SD: Standard deviation, min, max.: Minimum, maximum

Table 6 presents the comparison findings of the acceptability dimension scores of the health service access scale according to the demographic characteristics of the participants. The number of participants who lived in a village, had no type of health institution in their region, and had a green card type of health insurance was found to be less than 3 (Table 4). Groups with an observation count of less than 3 could not be included in the analysis because variance estimation could not be performed, and therefore reliable results could not be obtained.

There is no statistically significant difference in acceptability scores based on participants' gender ($p=0.843$). There is no statistically significant difference in acceptability scores based on participants' age groups ($p=0.051$). There is no statistically significant difference in acceptability scores based on participants' occupational groups ($p=0.164$). No statistically significant difference was found in acceptability scores based on participants' educational status ($p=0.238$). There is a statistically significant difference in acceptability scores based on participants' socioeconomic status ($p=0.009$). This

difference was observed between participants with low socioeconomic status and those with high socioeconomic status. The median acceptability score for participants with a low socioeconomic status was 3, while the median score for participants with a high socioeconomic status was 3.63. There was no statistically significant difference in acceptability scores based on participants' marital status ($p=0.912$). No statistically significant difference was found in the acceptability scores of participants according to the regions they lived in ($p=0.396$). There was a statistically significant difference in the acceptability scores of participants according to the types of healthcare institutions in the regions they lived in ($p=0.006$). This difference was observed between the scores of participants who had a family health clinic in their region and those who had all types of healthcare institutions in their region. The median acceptability score for participants who had a family health clinic in their region was 2.63, while the median score for participants who had all types of healthcare institutions in their region was 3.23. There was no statistically significant difference in acceptability scores between participants based on their chronic disease status ($p=0.373$). There was a statistically significant difference in acceptability scores between participants based on their perceived adequacy in accessing healthcare institutions using technological communication tools ($p=0.021$). The median acceptability score for participants who did not consider themselves competent in accessing healthcare institutions using technological

communication tools was 2.88, while the median score for participants who considered themselves competent was 3.25. There was no statistically significant difference in acceptability scores among participants based on their type of health insurance ($p=0.133$). A statistically significant difference was found in the acceptability scores of participants according to whether they had private health insurance ($p=0.046$). The median acceptability score of participants without private health insurance was 3.13, while the median score of participants with private health insurance was 3.38. There was a statistically significant difference in acceptability scores based on the type of healthcare institution participants typically used ($p<0.001$). This difference was observed between participants who typically used public institutions and those who used private institutions or both types of institutions. The median acceptability score for participants who generally received services from public institutions was 2.81, while the median score for participants who generally received services from private health institutions and those who received services from both institutions was 3.38. No statistically significant difference was found between the acceptability scores of participants based on whether they had experienced legal or other problems with the healthcare institutions they had received services from to date ($p=0.062$). There was a statistically significant difference in acceptability scores based on how participants evaluated our country's healthcare system ($p<0.001$). This difference is observed among all participants who rated

our country's healthcare system as good, neither good nor bad, and bad. The highest acceptability score median value of 4 was obtained among participants who rated our country's healthcare system as good, while the lowest median value of 2.75 was found among participants who rated our country's healthcare system as bad. There is a statistically significant difference in acceptability scores based on participants'

assessment of fees paid for healthcare services ($p < 0.001$). This difference was observed between the scores of participants who found the fees paid for healthcare services to be normal and those who found the fees to be high. The median acceptability score for participants who found the fees paid for healthcare services to be normal was 3.75, while the median score for participants who found the fees to be high was 3.13.

Table 7. Analysis of Acceptability/Appropriateness Dimension Scores According to Demographic Characteristics

Variable	Mean ± SD	Median (min.-max.)	Test Stat.	p
Gender				
Female	3.2 ± 0.95	3.38 (1 - 5)	-0.083	0.934 ^m
Male	3.1 ± 1.15	3.5 (1 - 5)		
Age				
18-20	3.6 ± 0.8	4 (2 - 4)	8,681	0.192 ^m
21-25	3.6 ± 0.44	3.69 (2.75 - 4.13)		
26-30	3.1 ± 1.07	3.25 (1 - 5)		
31-40	3.4 ± 1.02	3.5 (1 - 5)		
41-50	3.1 ± 1	3.25 (1 - 5)		
51-65	3.1 ± 1.02	3.38 (1 - 5)		
66	3.1 ± 1.2	3.44 (1 - 4.88)		
Occupation				
Student	3.3 ± 1.01	4 (1 - 4.38)	4.627	0.463 ^h
Worker	3.2 ± 0.98	3.5 (1 - 5)		
Clerk	3.4 ± 0.93	3.38 (1.25 - 5)		
Self-employed	3.2 ± 1.11	3.38 (1 - 5)		
Retired	3 ± 1.01	3.38 (1 - 5)		
Not working	3.3 ± 1.03	3.75 (1 - 5)		
Educational Status				
Literacy	2.1 ± 1.63	1.38 (1 - 4)	5.355	0.253 ^h
Primary Education	3 ± 1.27	3.38 (1 - 5)		
High School	3.1 ± 1.02	3.25 (1 - 5)		
College – University	3.3 ± 1.01	3.5 (1 - 5)		
Master's Degree Doctorate	3.5 ± 0.64	3.5 (2.25 - 5)		
Socio-Economic Level				
Low	2.9 ± 1.07	3 (1 - 5) ^b	8.928	0.012^h
Moderate	3.2 ± 0.99	3.38 (1 - 5) ^{ab}		
High	3.5 ± 1.02	3.75 (1 - 5) ^a		
Marital Status				
Single	3.2 ± 1	3.38 (1 - 5)	-0.411	0.681 ^m
Married	3.2 ± 1.03	3.38 (1 - 5)		
Place of Residence				
City	3.2 ± 1.01	3.38 (1 - 5)	-1.123	0.261 ^m
District	3.1 ± 1.06	3 (1 - 5)		

Types of Healthcare Facilities in the Area of Residence

Family Health Clinic	2.7 ± 1.01	2.63 (1 - 5) ^b		
Hospital	3.1 ± 0.98	3.25 (1 - 4.88) ^{ab}		
Teaching Hospital	3.1 ± 0.87	3.06 (1.75 - 5) ^{ab}	11,453	0.022^h
University Hospital	3.3 ± 1.02	3.75 (1.38 - 4.25) ^{ab}		
All	3.3 ± 1.02	3.5 (1 - 5) ^a		

Chronic Disease

No	3.2 ± 1	3.5 (1 - 5)		
Yes	3.1 ± 1.06	3.25 (1 - 5)	-1.341	0.180 ^m

Adequacy in Accessing Healthcare Institutions Through Technological Communication Tools

No	2.9 ± 1.19	2.88 (1 - 5)		
Yes	3.3 ± 0.97	3.5 (1 - 5)	-2.161	0.031^m

Type of Health Insurance

SGK	3.2 ± 1.01	3.38 (1 - 5)		
General Health Insurance	3.3 ± 1.09	3.5 (1 - 5)	0.713	0.700 ^h
None	3.3 ± 1.05	3.38 (1 - 5)		

Private Health Insurance

No	3.2 ± 1.07	3.38 (1 - 5)		
Yes	3.3 ± 0.93	3.38 (1 - 5)	-0.636	0.525 ^m

Healthcare Institution Where Services Are Usually Received

Public Institutions	2.8 ± 1.06	3 (1 - 5) ^b		
Private Healthcare Institutions	3.4 ± 0.85	3.5 (1 - 4.88) ^a	18,543	<0.001^h
Both Institutions	3.3 ± 1.01	3.5 (1 - 5) ^a		

Health Institutions from Which Services Were Received and Experiencing Legal or Other Problems

No	3.2 ± 1.03	3.38 (1 - 5)		
Yes	3 ± 0.85	3.25 (1 - 4.25)	-1.663	0.096 ^m

How Do You Rate Our Country's Healthcare System?

Good	3.8 ± 1	4 (1 - 5) ^a		
Neither Good Nor Bad	3.2 ± 0.93	3.5 (1 - 5) ^b	51,116	<0.001^h
Bad	2.9 ± 0.99	2.88 (1 - 5) ^c		

How Do You Evaluate the Fees Paid for Healthcare Services?

Low	3 ± 1.03	3 (1.38 - 4.5) ^{ab}		
Normal	3.6 ± 1.01	4 (1.13 - 5) ^a	21,571	<0.001^h
High	3.1 ± 0.99	3.25 (1 - 5) ^b		

m: Mann Whitney U test, h: Kruskal Wallis H test, a-c: There is no difference between groups with the same letter (Bonferonni corrected Dunn test), avg.: average, SD: Standard deviation, min, max.: Minimum, maximum

Table 7 presents the comparison findings for the health service access scale's suitability/appropriateness dimension scores according to the participants' demographic characteristics. The number of participants who lived in a village, had no type of health institution in their region, and had a green card type of health insurance was found

to be less than 3 (Table 4). Groups with an observation count of less than 3 could not be included in the analysis because variance estimation could not be performed, and therefore reliable results could not be obtained.

There is no statistically significant difference between the adjustment/suitability scores according to the gender of the participants ($p=0.934$). No statistically significant difference was found between the adjustment/suitability scores according to the age groups of the participants ($p=0.192$). There is no statistically significant difference in the adjustment/suitability scores between participants' occupational groups ($p=0.463$). No statistically significant difference was found in the adjustment/suitability scores between participants' educational status ($p=0.253$). There is a statistically significant difference in the adjustment/fitness scores of participants according to their socioeconomic status ($p=0.012$). This difference was observed between the scores of participants with low socioeconomic status and those with high socioeconomic status. The median adjustment/fitness score for participants with a low socioeconomic status was 3, while the median score for participants with a high socioeconomic status was 3.75. There was no statistically significant difference in adjustment/fitness scores based on participants' marital status ($p=0.681$). No statistically significant difference was found in the adjustment/suitability scores of participants according to the regions they lived in ($p=0.261$). There was a statistically significant difference in the adjustment/suitability scores of participants according to the types of health institutions in the regions they lived in ($p=0.022$). This difference was observed between the scores of participants who had a family health clinic in their region and those who had all types of healthcare institutions in their region. The

median compliance/suitability score for participants who had a family health clinic in their region was 2.63, while the median score for participants who had all types of healthcare institutions in their region was 3.5. There was no statistically significant difference in the adjustment/suitability scores of participants according to their chronic disease status ($p=0.180$). There was a statistically significant difference in the adjustment/suitability scores of participants according to their perception of adequacy in accessing healthcare institutions through technological communication tools ($p=0.031$). The median compliance/suitability score for participants who did not consider themselves competent in accessing healthcare institutions using technological communication tools was 2.88, while the median score for participants who considered themselves competent was 3.5. There was no statistically significant difference in compliance/suitability scores among participants based on their type of health insurance ($p=0.700$). No statistically significant difference was found in the compliance/suitability scores of participants based on whether they had private health insurance ($p=0.525$). There was a statistically significant difference in the compliance/suitability scores of participants based on the healthcare institutions they generally used ($p<0.001$). This difference was generally observed between the scores of participants who usually received services from public institutions and those who received services from private health institutions and both types of institutions. While the median compliance/suitability

score of participants who usually received services from public institutions was 3, the median compliance/suitability scores of participants who usually received services from private health institutions and both types of institutions were 3.5. There was no statistically significant difference in the adjustment/suitability scores based on whether participants had experienced legal or other problems with the healthcare institutions they had received services from to date ($p=0.096$). There was a statistically significant difference in the compliance/suitability scores based on how participants evaluated our country's healthcare system ($p<0.001$). This difference was observed among all participants who evaluated our country's healthcare system as good, neither good nor bad, and bad. The

highest median compliance/suitability score of 4 was observed among participants who rated our country's healthcare system as good, while the lowest median score of 2.88 was observed among participants who rated our country's healthcare system as poor. There is a statistically significant difference in the conformity/suitability scores based on participants' assessment of the fees paid for healthcare services ($p<0.001$). This difference was observed between the scores of participants who found the fees paid for healthcare services to be normal and those who found the fees to be high. The median compliance/appropriateness score for participants who considered the fees paid for healthcare services to be normal was 4, while the median score for participants who considered the fees to be high was 3.25.

Table 8. Analysis of the Accessibility Dimension Score According to Demographic Characteristics

Variable	Mean \pm SD	Median (min.-max.)	Test Stat.	p
Gender				
Female	2.6 \pm 1.2	2.33 (1 - 5)	-0.351	0.726 ^m
Male	2.6 \pm 1.27	2.33 (1 - 5)		
Age				
18-20	3 \pm 1.34	4 (1 - 4)	7.733	0.258 ^h
21-25	3.1 \pm 1.02	3.33 (1.33 - 4.33)		
26	2.3 \pm 1.16	2 (1 - 5)		
31-40	2.6 \pm 1.15	2.33 (1 - 5)		
41-50	2.7 \pm 1.23	2.67 (1 - 5)		
51-65	2.6 \pm 1.31	2.33 (1 - 5)		
66	2.5 \pm 1.16	2.33 (1 - 4)		
Occupation				
Student	2.8 \pm 1.45	3.33 (1 - 5)	4.467	0.484 ^h
Worker	2.6 \pm 1.18	2.33 (1 - 5)		
Clerk	2.5 \pm 1.14	2.33 (1 - 5)		
Self-employed	2.7 \pm 1.3	2.33 (1 - 5)		
Retired	2.5 \pm 1.16	2.33 (1 - 5)		
Not working	2.9 \pm 1.3	3 (1 - 5)		
Educational Status				
Literacy	2 \pm 1.73	1 (1 - 4)	2.722	0.605 ^h
Primary	2.7 \pm 1.36	2.33 (1 - 5)		
High School	2.6 \pm 1.31	2.33 (1 - 5)		
College - University	2.6 \pm 1.19	2.33 (1 - 5)		



Master's Degree Doctorate	2.8 ± 1.01	2.67 (1 - 5)		
Socio-Economic Level				
Low	2.4 ± 1.34	2 (1 - 5) ^b		
Moderate	2.6 ± 1.19	2.33 (1 - 5) ^b	9.742	0.008^h
High	3.1 ± 1.16	3.33 (1 - 5) ^a		
Marital Status				
Single	2.7 ± 1.2	2.67 (1 - 5)		
Married	2.5 ± 1.23	2.33 (1 - 5)	-1.478	0.139 ^m
Place of Residence				
City	2.6 ± 1.23	2.33 (1 - 5)		
District	2.4 ± 1.15	2.33 (1 - 5)	-1.204	0.228 ^m
Types of Healthcare Facilities in the Area of Residence				
Family Health Clinic	2 ± 1.03	1.83 (1 - 4.33) ^b		
Hospital	2.4 ± 1.09	2.33 (1 - 5) ^{ab}		
Teaching Hospital	2 ± 1.23	1.67 (1 - 5) ^{ab}	21,536	<0.001^h
University Hospital	2.4 ± 0.85	2.33 (1.33 - 4) ^{ab}		
All	2.8 ± 1.24	2.67 (1 - 5) ^a		
Chronic Disease				
No	2.7 ± 1.2	2.33 (1 - 5)		
Yes	2.5 ± 1.26	2.33 (1 - 5)	-1.438	0.150 ^m
Adequacy in Accessing Healthcare Institutions Through Technological Communication Tools				
No	2.4 ± 1.29	2 (1 - 5)		
Yes	2.7 ± 1.2	2.33 (1 - 5)	-1.774	0.076 ^m
Type of Health Insurance				
SGK	2.5 ± 1.21	2.33 (1 - 5)		
General Health Insurance	2.9 ± 1.16	3 (1 - 5)	7.955	0.051 ^h
None	3.2 ± 1.17	3.33 (1 - 5)		
Private Health Insurance				
No	2.6 ± 1.26	2.33 (1 - 5)		
Yes	2.7 ± 1.16	2.67 (1 - 5)	-0.991	0.322 ^m
Healthcare Institution Where Services are Usually Obtained				
Public Institutions	2.2 ± 1.22	2 (1 - 5) ^b		
Private Healthcare Institutions	2.7 ± 1.08	2.67 (1 - 5) ^a	13,835	0.001^h
Both Institutions	2.8 ± 1.24	2.67 (1 - 5) ^a		
Health Institutions from Which Services Were Received and Experiencing Legal or Other Problems				
No	2.7 ± 1.23	2.33 (1 - 5)		
Yes	2.2 ± 1.12	2 (1 - 5)	-2.085	0.037^m
How Do You Evaluate Our Country's Healthcare System?				
Good	3.6 ± 1.13	4 (1 - 5) ^a		
Neither Good Nor Bad	2.7 ± 1.1	2.67 (1-5) ^b	74,806	<0.001^h
Bad	2 ± 1.08	2 (1 - 5) ^c		
How Do You Rate the Fees Paid for Healthcare Services?				
Low	2.2 ± 1.25	2 (1 - 4.33) ^b		
Normal	3.4 ± 1.13	4 (1 - 5) ^a	41.387	<0.001^h
High	2.4 ± 1.16	2 (1 - 5) ^b		

m: Mann Whitney U test, h: Kruskal Wallis H test, a-c: There is no difference between groups with the same letter (Bonferonni corrected Dunn test), avg.: average, SD: Standard deviation, min, max.: Minimum, maximum

Table 8 presents the comparison findings of the accessibility dimension scores of the health services access scale according to the demographic characteristics of the participants. The number of participants living in villages, with no health institutions in their region, and with green card health insurance was found to be less than 3 (Table 4). Groups with fewer than 3 observations could not be included in the analysis because variance estimation could not be performed, and therefore reliable results could not be obtained.

There is no statistically significant difference in accessibility scores according to the gender of the participants ($p=0.726$). No statistically significant difference was found in accessibility scores according to the age groups of the participants ($p=0.258$). There is no statistically significant difference in accessibility scores based on participants' occupational groups ($p=0.484$). No statistically significant difference was found in accessibility scores based on participants' educational status ($p=0.605$). There is a statistically significant difference in accessibility scores based on participants' socioeconomic status ($p=0.008$). This difference was observed between the scores of participants with low and medium socioeconomic status and those with high socioeconomic status. The median accessibility score for participants with a low socioeconomic status was 2, while the median score for participants with a high socioeconomic status was 3.33. There was no statistically significant difference in accessibility scores based on participants'

marital status ($p=0.139$). No statistically significant difference was found in the accessibility scores of participants according to the regions they lived in ($p=0.228$). There was a statistically significant difference in the accessibility scores of participants according to the types of healthcare institutions in the regions they lived in ($p<0.001$). This difference was observed between the scores of participants who had a family health clinic in their region and those who had all types of healthcare facilities in their region. The median accessibility score for participants who had a family health clinic in their region was 1.83, while the median score for participants who had all types of healthcare facilities in their region was 2.67. There was no statistically significant difference in accessibility scores between participants based on their chronic disease status ($p=0.150$). There was no statistically significant difference in accessibility scores between participants based on their perceived adequacy in accessing healthcare institutions using technological communication tools ($p=0.076$). There was no statistically significant difference in accessibility scores among participants based on their type of health insurance ($p=0.051$). No statistically significant difference was found in accessibility scores among participants based on whether they had private health insurance ($p=0.322$). There was a statistically significant difference in accessibility scores based on the type of healthcare institution participants usually received services from ($p=0.001$). This difference was observed between the scores of participants who usually received services

from public institutions and those who received services from private healthcare institutions or both types of institutions. The median accessibility score for participants who generally received services from public institutions was 2, while the median scores for participants who generally received services from private healthcare institutions and those who received services from both types of institutions were 2.67. A statistically significant difference was found between the accessibility scores of participants based on whether they had experienced legal or other problems with the healthcare institutions they had received services from to date ($p=0.037$). The median accessibility score for participants who had not experienced legal or other problems with the healthcare institutions they had used so far was 2.33, while the median accessibility score for participants who had experienced problems was 2. There was a statistically significant difference in accessibility scores based on how participants evaluated our country's

healthcare system ($p<0.001$). This difference was observed among all participants who evaluated our country's healthcare system as good, neither good nor bad, and bad. The highest median accessibility score of 4 was obtained among participants who rated our country's healthcare system as good, while the lowest median score of 2 was obtained among participants who rated our country's healthcare system as poor. There was a statistically significant difference in accessibility scores based on participants' assessment of the fees paid for healthcare services ($p<0.001$). This difference was observed between the scores of participants who considered the fees paid for healthcare services to be normal and those who considered the fees to be low or high. The median accessibility score of participants who considered the fees paid for healthcare services to be normal was 4, while the median scores of participants who considered the fees to be low or high were 2.

Table 9. Analysis of Accessibility Score by Demographic Characteristics

Variable	Mean ± SD	Median (min.-max.)	Test Stat.	p
Gender				
Female	3.2 ± 0.89	3.26 (1 - 5)	-0.071	0.944 ^m
Male	3.1 ± 1.07	3.35 (1 - 5)		
Age				
18-20	3.5 ± 0.85	4 (1.87 - 4.22)	11.427	0.076 ^h
21-25	3.6 ± 0.41	3.59 (3 - 4.35)		
26-30	3 ± 0.98	3.02 (1.04 - 5)		
31-40	3.3 ± 0.9	3.35 (1 - 5)		
41-50	3.1 ± 0.93	3.26 (1.17 - 5)		
51-65	3 ± 1.01	3.09 (1 - 5)		
66	3 ± 0.97	3.15 (1 - 4.35)		
Occupation				
Student	3.2 ± 0.96	3.48 (1.04 - 4.22)	6.893	0.229 ^h
Worker	3.2 ± 0.89	3.35 (1 - 5)		
Clerk	3.2 ± 0.83	3.17 (1.26 - 5)		
Self-employed	3.2 ± 1.06	3.26 (1 - 5)		



Retired	2.9 ± 0.94	3.09 (1.13 - 4.91)		
Not working	3.3 ± 0.99	3.59 (1 - 5)		
Educational Status				
Literacy	2.1 ± 1.67	1.22 (1 - 4)		
Primary education	2.9 ± 1.25	3.15 (1 - 5)		
High School	3 ± 0.98	3.09 (1.13 - 5)	5.104	0.277 ^h
College - University	3.2 ± 0.92	3.26 (1 - 5)		
Master's Degree Doctorate	3.4 ± 0.53	3.39 (2.09 - 4.83)		
Socioeconomic Level				
Low	2.9 ± 1.02	2.87 (1 - 5) ^b		
Medium	3.1 ± 0.93	3.26 (1 - 5) ^b	11,178	0.004^h
High	3.4 ± 0.91	3.7 (1 - 5) ^a		
Marital Status				
Single	3.1 ± 0.95	3.28 (1 - 5)	-0.138	0.890 ^m
Married	3.1 ± 0.95	3.26 (1 - 5)		
Place of Residence				
City	3.2 ± 0.95	3.3 (1 - 5)	-1.135	0.256 ^m
District	3 ± 0.95	3 (1 - 5)		
Types of Healthcare Facilities in the Area of Residence				
Family Health Clinic	2.6 ± 0.93	2.61 (1 - 4.39) ^b		
Hospital	3 ± 0.88	3.09 (1.04 - 4.83) ^{ab}		
Teaching Hospital	2.9 ± 0.97	2.89 (1.61 - 5) ^{ab}	19,024	0.001^h
University Hospital	3.3 ± 0.9	3.7 (1.39 - 3.87) ^{ab}		
All	3.2 ± 0.94	3.39 (1 - 5) ^a		
Chronic Disease				
No	3.2 ± 0.94	3.35 (1 - 5)	-1.341	0.180 ^m
Yes	3 ± 0.96	3.07 (1 - 5)		
Adequacy in Reaching Healthcare Institutions Using Technological Communication Tools				
No	2.8 ± 1.11	2.78 (1 - 5)	-2.631	0.009^m
Yes	3.2 ± 0.9	3.35 (1 - 5)		
Type of Health Insurance				
SGK	3.1 ± 0.93	3.26 (1 - 5)		
General Health Insurance	3.3 ± 1.06	3.39 (1 - 5)	3.224	0.199 ^h
None	3.3 ± 1.01	3.52 (1 - 4.78)		
Private Health Insurance				
No	3.1 ± 1	3.22 (1 - 5)	-1.365	0.172 ^m
Yes	3.2 ± 0.86	3.35 (1 - 5)		
Healthcare Facility Where Services are Usually Received				
Public Institutions	2.7 ± 0.98	2.87 (1 - 5) ^b		
Private Healthcare Institutions	3.3 ± 0.77	3.35 (1.04 - 4.96) ^a	20,697	<0.001^h
Both Institutions	3.3 ± 0.95	3.43 (1 - 5) ^a		
Health Institutions from Which Services Were Received and Experiencing Legal or Other Problems				
No	3.2 ± 0.96	3.3 (1 - 5)	-1.999	0.046^m
Yes	2.9 ± 0.79	3.04 (1 - 4.22)		
How Do You Evaluate Our Country's Healthcare System?				
Good	3.8 ± 0.98	4 (1 - 5) ^a		
Neither Good Nor Bad	3.2 ± 0.86	3.35 (1 - 5) ^b	74,868	<0.001^h
Bad	2.7 ± 0.85	2.76 (1 - 4.83) ^c		

How Do You Rate the Fees Paid for Healthcare Services?

Low	2.9 ± 1	2.93 (1.22 - 4.22) ^{ab}	
Normal	3.6 ± 0.98	3.91 (1.13 - 5) ^a	31.232 <0.001 ^h
High	3 ± 0.9	3.09 (1 - 5) ^b	

m: Mann Whitney U test, h: Kruskal Wallis H test, a-c: There is no difference between groups with the same letter (Bonferonni corrected Dunn test), avg.: average, SD: Standard deviation, min, max.: Minimum, maximum

Table 9 presents the comparison findings of the total scores on the health service access scale according to the demographic characteristics of the participants. The number of participants who lived in a village, had no type of health institution in their region, and had a green card type of health insurance was found to be less than 3 (Table 4). Groups with an observation count of less than 3 could not be included in the analysis because variance estimation could not be performed, and therefore reliable results could not be obtained.

There is no statistically significant difference in access scores based on participants' gender ($p=0.944$). There is no statistically significant difference in access scores based on participants' age groups ($p=0.076$). There is no statistically significant difference in access scores based on participants' occupational groups ($p=0.229$). No statistically significant difference was found in access scores based on participants' educational status ($p=0.277$). There was a statistically significant difference in access scores among participants according to their socioeconomic status ($p=0.004$). This difference was observed between the scores of participants with low and medium socioeconomic status and those with high socioeconomic status. The median access score for participants with a low socioeconomic status was 2.87, while the median score for participants with a medium

socioeconomic status was 3.26, and the median score for participants with a high socioeconomic status was 3.7. There was no statistically significant difference in access scores based on participants' marital status ($p=0.890$). No statistically significant difference was found in the access scores of participants according to the regions they lived in ($p=0.256$). There was a statistically significant difference in the access scores of participants according to the types of health institutions in the regions they lived in ($p=0.001$). This difference was observed between the scores of participants who had a family health clinic in their region and those who had all types of healthcare facilities in their region. The median access score for participants who had a family health clinic in their region was 2.61, while the median score for participants who had all types of healthcare facilities in their region was 3.39. There was no statistically significant difference in access scores between participants based on their chronic disease status ($p=0.180$). There was a statistically significant difference in access scores between participants based on their perceived adequacy in reaching healthcare institutions using technological communication tools ($p=0.009$). The median access score for participants who did not consider themselves competent in accessing healthcare institutions using technological

communication tools was 2.78, while the median score for participants who considered themselves competent was 3.35. There is no statistically significant difference in access scores between participants based on their type of health insurance ($p=0.199$). No statistically significant difference was found in access scores between participants based on whether they had private health insurance ($p=0.172$). There was a statistically significant difference in access scores among participants based on the type of healthcare institution they usually used ($p<0.001$). This difference was observed between the scores of participants who usually used public institutions and those who used private healthcare institutions or both types of institutions. The median access score for participants who generally received services from public institutions was 2.87, while the median score for participants who generally received services from private healthcare institutions was 3.35, and the median score for participants who received services from both institutions was 3.43. There is a statistically significant difference in access scores between participants based on whether they have experienced legal or other problems with the healthcare institutions they have received services from to date ($p=0.046$). The median access score for participants who had not experienced legal or other problems with the healthcare institutions they had used so far was 3.3, while the median accessibility score for participants who had experienced problems was 3.04. A statistically significant difference was found in the access scores of participants based on how they evaluated our country's

healthcare system ($p<0.001$). This difference was observed among all participants who evaluated our country's healthcare system as good, neither good nor bad, and bad. The highest median accessibility score of 4 was obtained among participants who rated our country's healthcare system as good, while the lowest median score of 2.76 was obtained among participants who rated our country's healthcare system as poor. There was a statistically significant difference in accessibility scores based on participants' assessment of the fees paid for healthcare services ($p<0.001$). This difference was observed between the scores of participants who considered the fees paid for healthcare services to be normal and those who considered them to be high. The median access score of participants who considered the fees paid for healthcare services to be normal was 3.91, while the median score of those who considered the fees to be high was 3.09.

CONCLUSION

This study comprehensively examines the factors affecting perceived access to healthcare services in Istanbul and the sample of Bakırköy, Başakşehir, Küçükçekmece, and Ümraniye. The findings obtained after the analyses clearly reveal that access inequalities have reached serious levels in Türkiye at both the individual and structural levels. The findings also show that individuals with low socioeconomic status face more barriers in accessing healthcare services. We see that this situation manifests itself as a deepening problem in terms of both physical and economic access.

While the most highly perceived dimension of access in research and practice is "accessibility," the "reachability" dimension receives the lowest scores. Again, this situation shows that, rather than the physical presence of healthcare institutions, their geographical locations and transportation infrastructure seriously affect access to services. Especially in metropolises such as Istanbul and large and complex cities, the existence of services creates a positive perception in terms of accessibility. The difficulties experienced in accessing these services significantly reduce the overall satisfaction level.

Another important finding obtained within the scope of the research is that the vast majority of participants consider the fees they pay for healthcare services to be "high." This situation reveals that barriers to economic access remain a serious problem. The cost of private healthcare services limits access for individuals with low income levels. When the research findings and results are evaluated, it is evident that public healthcare services fail to provide a sufficient level of satisfaction due to overcrowding, low quality, and flaws in the appointment system. Indeed, the fact that 32.8% of the participants in the study rated the healthcare system as "poor" indicates not only individual dissatisfaction but also a systemic loss of trust.

When the relationship of this study with the literature is evaluated, the findings and results coincide with both national and international studies. Theoretical approaches such as Panchansky and Thomas's access model, Levesque's access framework, and

Andersen's behavioral model support the technological access applications used in this study. Furthermore, it demonstrates that the multidimensional nature of access provides a functional basis, as explained in the literature. According to these models, access is not merely a matter of physical transportation. It is approached as a holistic reflection of the individual's perception of the service, their socioeconomic status, technological competence, and the environmental conditions in which they live.

The integration of technological transformation into healthcare services has the theoretical potential to increase access. However, in Türkiye, this transformation has not yet been implemented in a sufficiently inclusive and equitable manner. Participants in the study stated that digital infrastructures, such as the MHRS system, make access to healthcare services difficult due to both system overload and technical deficiencies. The digital divide in Türkiye fails to meet the needs of communities and individuals living in rural areas in particular. Among the most important findings of the study are those indicating that the elderly or individuals with low levels of education who participated in the study have a seriously limited capacity to benefit from these digital systems.

When evaluating the results of this study, the difference in perception between public and private healthcare institutions is also noteworthy. Individuals receiving services from private healthcare institutions have a higher perception of access. However, participants' statements reveal that public healthcare services are inadequate in terms

of capacity and quality. Indeed, this situation shows that despite the prevalence of public services, they fail to meet individuals' expectations in terms of meeting their needs and reduce the satisfaction levels of service users.

As a general conclusion, this research study has addressed inequalities in access to healthcare services from a holistic perspective. Differences emerging in socio-economic, digital, and geographical dimensions were particularly highlighted. In this context, we can say that health policies to be developed by public authorities should not only strengthen the structural infrastructure but also prioritize improving individuals' perceptions, increasing health literacy, and spreading digital transformation to all segments of society.

We must emphasize that the findings obtained at the end of this study highlight the need to consider micro-level differences in health planning. Again, this situation clearly demonstrates the importance of steps to be taken by public administrators and policymakers towards creating a more inclusive and equitable health system. These data and analysis results are indicative for both service providers and policymakers, serving as an important reference for the construction of sustainable health services and systems.

Based on the findings obtained in this study, it has been revealed that the factors affecting the perceived access to healthcare services are multidimensional and interrelated. When the analysis results obtained are evaluated and comparisons are made in line with the

general approaches in the literature, the following recommendations need to be developed to ensure that healthcare services are provided in a more equitable, accessible, and effective manner.

RECOMMENDATIONS

1. Improvements to Physical Infrastructure for Accessibility

- The geographical distribution of healthcare institutions in large metropolitan areas such as Istanbul should be reshaped. Alternative public transportation routes should be established urgently, especially in areas with weak infrastructure such as transportation (e.g., Başakşehir – Çam Sakura City Hospital).
- The location of new hospitals to be established or constructed should be based on the principle of "equal access"; it should be shaped by taking into account factors such as public transportation, disabled access, and population density in the surrounding area.

2. Policies to Improve Economic Accessibility

- The vast majority of participants in this study find the cost of public and private healthcare services to be quite high. In this regard, we conclude that:
 - ✓ State-supported incentive programs should be developed for low-income

individuals in private healthcare institutions.

- ✓ The scope of basic healthcare services provided in public hospitals should be expanded to prevent individuals from being forced to seek private healthcare services.
- ✓ Contribution fees for healthcare services should be determined taking into account individuals' income levels.

3. Expanding Access to Digital Healthcare Services

- Technical infrastructure systems for digital systems such as MHRS and e-Nabız should be strengthened, and user experience issues such as system crashes, access problems, and inability to find appointments should be resolved promptly.
- Efforts to promote telemedicine applications should be accelerated, and the accessibility of these services should be urgently increased, especially for citizens in rural areas.
- Awareness campaigns should be organized regarding the use of digital health services. In this regard, "health digital literacy" training should be encouraged and implemented so that citizens can use these systems effectively.

4. Interventions to Reduce Socioeconomic Inequalities

- Policies should be developed to ensure targeted continuity in increasing the level of access to healthcare services for individuals in society with low socioeconomic status.
- Information campaigns supported by local authorities should be organized to increase the health literacy of individuals with low levels of education in particular. Guidance services should be provided regarding the training to be given in this area.

5. Improving Quality and Service Standards in Public Health Institutions

- International quality standards should be developed to improve service quality in public health institutions. Solution mechanisms and follow-up management systems should be established to address issues such as patient congestion and staff shortages.
- Healthcare workers' communication skills should be developed, and healthcare personnel should be trained through regular education programs on patient-centered approaches.

6. Perception Management and Strengthening Institutional Trust

- Transparent and effective communication strategies should be implemented to increase the

trust of society and individuals in Türkiye's healthcare system.

- Public awareness campaigns should be conducted frequently and effectively, primarily through social media and digital platforms; verification mechanisms should be developed to counter misinformation.

7. Improving Patient-Healthcare Worker Interaction

- The quality of interaction between patients and healthcare workers in healthcare services should be improved. To this end, topics such as empathy, listening, and open communication should be integrated into healthcare personnel training.
- Consultation times in outpatient clinics should be extended, arrangements should be made to ensure patient satisfaction, and doctor-patient communication should be strengthened.

8. Service Planning Aimed at Regional and Geographical Balance

- A public justice system should be applied in the regional distribution of healthcare services, and needs-based replanning should be implemented. Healthcare investments in the eastern and southeastern regions should be accelerated, and the allocated budgets should be increased. In addition, the employment of specialist doctors in these regions

should be encouraged, and deficiencies in the required healthcare areas should be addressed promptly.

- Mobile health units should be rapidly implemented and made widely available, especially for individuals living in rural areas.

9. Developing Inclusive and Sustainable Health Policies

- Health policies should be implemented by eliminating micro-level differences (age, occupation, education, geographic region).
- Access to healthcare services should be evaluated and addressed not only technically but also as a social right, and the need for equality-based, holistic strategies, as seen in developed countries, should be addressed promptly.
- **Author's Note:** *This study is based on the master's thesis titled "An Investigation of Factors Affecting Perceived Access to Health Services: The Case of Istanbul," completed at the Institute of Graduate Education, Istanbul Kent University, under the supervision of Prof. Dr. Bülent DEMİR.*
- **Ethics Statement:** *In this article, the research process has adhered to journal formatting guidelines, publication principles, research and publication ethics rules, and journal ethics guidelines. The author(s) have declared compliance with these rules*

and have confirmed that the study was completed in accordance with these ethical values, acting in line with COPE's publication and architectural professional ethics guidelines. The authors are solely responsible for any violations that may arise in connection with this article. Our journal and its editorial board assume no liability.

- **Author Contribution Ratio:** In this study, the contribution ratios of all authors are equal.

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