

Barriers Faced by Healthcare Service Users Based on Disability Levels: A Comparison between a Private Hospital and a Public Hospital

Sağlık Hizmet Kullanıcılarının Engellilik Düzeylerine Göre Karşılaştıkları Problemler: Bir Özel Hastane ve Kamu Hastanesi Karşılaştırması

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ABSTRACT

Objective: The study aims to classify healthcare users by disability level and identify service-related issues while also comparing private and public hospitals.

Materials and Methods: The scope of this descriptive, cross-sectional study includes patients visiting the outpatient services of one private and one public hospital. A face-to-face questionnaire was conducted with 181 outpatients from private hospitals and 180 from public hospitals. Data meeting normality were analyzed using descriptive statistics, factor analysis, correlation, and variance analysis.

Results: 51.2% of healthcare service users reported experiencing at least minor difficulties in one or more areas of disability. Among the scale factors according to institution type, there is a significant difference only in the social security dimension ($t=9.20$, $p<0.000$). Significant differences were found in the social security dimension ($F = 4.50$, $p < 0.05$) and the auxiliary factors dimension ($F = 3.26$, $p < 0.01$) between the groups based on their level of disability. There was a statistically significant negative relationship between the institution variable and the social security dimension ($r=-0.437$, $p<0.000$) and the access ($r=-0.215$, $p<0.000$). On the other hand, significant positive relationships were determined between the institution variable and the psychological ($r=0.294$, $p<0.000$) and the physical/environmental dimensions ($r=0.138$, $p<0.000$).

Conclusions: Disability-related problems in private and public hospitals relate to social security and auxiliary factors. State hospitals should improve physical and environmental conditions, such as ramps, seating quality, and signage. Additionally, private hospitals need to address social security coverage and ensure that all types of healthcare services are included.

Keywords: Disability level, disabled health service users, polyclinic service.

ÖZ

Amaç: Bu çalışma, sağlık hizmeti kullanıcılarını engellilik seviyelerine göre sınıflandırmayı ve hizmetle ilgili sorunları belirlemeyi, ayrıca özel ve kamu hastanelerini karşılaştırmayı amaçlamaktadır.

Materyal ve Metot: Tanımlayıcı ve kesitsel türdeki bu çalışmanın kapsamı, bir özel ve bir kamu hastanesinin poliklinik hizmetlerine başvuran hastaları içermektedir. 181 özel hastane ve 180 kamu hastanesinden hasta ile yüz yüze anket yapılmıştır. Normallik şartlarını sağlayan veriler tanımlayıcı istatistikler, faktör analizi, korelasyon ve varyans analizi ile analiz edilmiştir.

Bulgular: Sağlık hizmeti kullanıcılarının %51,2'si bir veya daha fazla engellilik alanında en azından küçük zorluklar yaşadığını bildirdi. Kurum türüne göre ölçek faktörlerinden sadece sosyal güvenlik boyutunda anlamlı farklılık bulunmaktadır ($t=9,20$, $p<0,000$). Engellilik düzeyine göre gruplar arasında sosyal güvenlik boyutunda ($F = 4,50$, $p < 0,05$) ve yardımcı faktörler boyutunda ($F = 3,26$, $p < 0,01$) anlamlı farklılıklar bulunmuştur. Kurum değişkeni ile sosyal güvenlik boyutu ($r=-0,437$, $p<0,000$) ve erişim ($r=-0,215$, $p<0,000$) arasında istatistiksel olarak anlamlı negatif ilişki vardı. Diğer taraftan kurum değişkeni ile psikolojik ($r=0,294$, $p<0,000$) ve fiziksel/çevresel boyutlar ($r=0,138$, $p<0,000$) arasında pozitif yönde anlamlı ilişkiler saptanmıştır.

Sonuç: Engellilikle ilgili sorunlar, özel ve kamu hastanelerinde sosyal güvenlik ve yardımcı faktörlerle ilişkilidir. Kamu hastaneleri, rampalar, oturma kalitesi ve işaretleme gibi fiziksel ve çevresel koşulları iyileştirmelidir. Ayrıca, özel hastaneler sosyal güvenlik kapsamını gözden geçirmeli ve tüm sağlık hizmetlerinin dahil edilmesini sağlamalıdır.

Anahtar Kelimeler: Engellilik düzeyi, engellilik sağlık hizmeti kullanıcıları, poliklinik hizmeti.

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INTRODUCTION

People with disabilities are among the disadvantaged groups in terms of social inclusion and access to public services. It is stated that approximately 15% of the world's population is disabled.¹ According to the 2023 report by TÜİK² (Turkish Statistical Institute), which uses the Washington group scale,^{3,4} the total percentage of the population with any disability in Türkiye was found to be 12.6%. The proportion of disabled individuals among those utilizing health services is relatively high. According to a study by Dejong et al.,⁵ disabled individuals (among adults of the same age range) constitute 34% of those who visit a doctor, 41% of those who are prescribed medication, and nearly 50% of those who are treated and discharged from a health facility.

Disability is defined as a limitation that prevents individuals from performing vital activities due to the loss of mental, emotional, and social abilities for various reasons, whether congenital or acquired.⁶ This definition reflects a medical perspective. However, disability definitions can vary depending on the viewpoint. From the social model point of view, disability is not a medical issue but a political and, consequently, a social one. Therefore, the main barrier is not the physical impairments, but the societal mindset imposed on the individual. In summary, it is not the disabilities that hinder individuals but the society that fails to provide quality services and consider the needs of disabled individuals.⁷

Today, a disabled person is defined as someone who, due to congenital or postnatal factors affecting their appearance, function, mobility, cognition, and personal care, is restricted in many aspects of life due to societal or administrative decisions and preferences.⁸ When evaluated from the perspective of the social model, the problems faced by individuals due to any physical impairment are caused by societal or administrative decisions and preferences. In this regard, managers at all levels should prioritize designs suitable for people with different levels of abilities and various human conditions with a holistic and inclusive philosophy of universal design when designing programs, services, products, and systems. The situation is no different in the provision of health services.

In this context, this study aims to classify health service users according to their level of disability from the broadest perspective and to identify the problems they encounter during the service.

MATERIALS AND METHODS

Ethics Committee Approval

Approval for this research was obtained from the Scientific Studies and Ethics Committee of Istanbul Sabahattin Zaim University (Date: 28.02.2023, deci-

sion no: 2023/02). The study was conducted in both a public hospital and a private hospital. Institutional permission was obtained from both hospitals for the research. Additionally, participants completed an informed consent form prior to the administration of the survey.

Study Design and Sample: This study was descriptive and cross-sectional in nature. The population of the research consisted of patients who applied for outpatient services at two hospitals, one public and one private. According to information obtained from the statistical units of the hospitals, the total average monthly number of outpatients is 77,069. The sample size from this known population was calculated using the sample calculation formula with a 95% confidence interval, a 5% margin of error, and a 0.50 probability of occurrence, as shown in the formula below.

$$n = \frac{Nt^2pq}{d^2(N-1) + t^2pq}$$

The sample size was determined to be 383. Since comparisons between the two hospitals and equalizing the representation of both groups were intended, quota sampling was used as the sampling method. Analyses were conducted with data from 361 participants.

Data Collection Tools: In line with the aim of the study, the following questions are sought to be answered:

- What are the problems encountered by health service users while receiving health services?
- Do these problems vary depending on the disability levels of the health service users?
- Do the problems encountered by disabled individuals using health services differ depending on the type of hospital (private/public)?

The data to answer these questions were collected using the following scales. In the first part of the research, a questionnaire consisting of seven questions created by the researchers was used to obtain the demographic information of the participants. In the second part of the research, the Washington Group's disability question set, designed to determine the level of disability from the broadest perspective, was employed to assess the functionality levels of individuals. These functionalities are measured using a 4-point Likert-type question set that evaluates the degrees of difficulty in vision, communication, hearing, cognitive abilities, personal care, and mobility. This question set, prepared by the Washington Group, is also utilized by the Ministry of Family and Social Services.²⁻⁴

In the third and final part, a 21-question, 5-point Likert-type scale titled "Problems Faced by Disabled Individuals in Accessing Health Care," developed by

Kördeve⁹ was used. The scale consists of four sub-dimensions addressing the issues encountered by disabled individuals in accessing healthcare.¹⁰ The first dimension, termed service access, refers to the availability of disabled parking at the healthcare facility, ease of appointment scheduling, and priority in the queue. The second dimension encompasses psychological factors, defining the relationship between healthcare personnel and disabled patients. The third dimension pertains to social security coverage and whether all types of healthcare services are covered by social security. Lastly, the auxiliary factors dimension includes aspects such as the presence of light and sound stimuli and the stress conditions of disabled individuals.

The overall Cronbach's alpha value of the scale was determined to be 0.795. The reliability coefficients of the dimensions ranged from 0.892 to 0.527. The total explanatory power of the scale was found to be 58.7%.

Statistical Analysis: The data were analyzed using the IBM SPSS 24 program. After the data were entered into the program, percentage and frequency distributions were used to determine the participants' descriptive characteristics and healthcare preferences. To validate the scale's construct and validity with current data, exploratory factor analysis and reliability analyses were conducted, followed by normality tests before proceeding with further analyses.

First of all, the disability level among the participants was determined by evaluating the Washington scale. Then, an independent samples t-test was conducted to determine whether the problems encountered by participants in accessing services varied based on whether the institution was private or public. An ANOVA test was conducted to assess whether the problems experienced by participants in accessing healthcare varied according to their level of disability. Lastly, correlation analysis was applied to reveal the relationships between the corporate variable and the scale dimensions of health care. Statistical significance accepted $p < 0.05$.

RESULTS

Table 1 provides a summary of the participants' demographic characteristics and healthcare preferences. The majority of participants were male (57.1%) and aged 26–35 (30.7%). A significant portion of the sample held a bachelor's degree (39.9%) and earned between 0–8500 Turkish lira monthly (43.5%). In terms of institutional preference, there was a near-equal distribution between public (50.1%) and private (49.9%) institutions. Notably, 60.1% of participants preferred to receive healthcare services alone, and 37.1% preferred state hospitals for their medical care, followed by Private Hospitals (25.5%) and Education Research Hospitals (18.6%). A notable portion also prefers to visit a Family Physician (16.1%), while a small fraction chooses other institutions (2.7%).

Table 1. Distribution of patients' descriptive characteristics.

Characteristics	n (%)	
Gender	Male	206 (57.1)
	Female	155 (42.9)
Age	18-25	90 (24.9)
	26-35	111 (30.7)
	36-45	80 (22.2)
	46 and older	80 (22.2)
Education	Associate degree	78 (21.6)
	Bachelor's degree	144 (39.9)
	Master's degree	120 (33.2)
	Doctorate degree	19 (5.3)
Income Level (Monthly)	0-8500	157 (43.5)
	8501-20000	133 (36.8)
	Over 20001	71 (19.7)
Institution	Public	181 (50.1)
	Private	180 (49.9)
Which one do you prefer to receive health care?	I go alone	217 (60.1)
	I go with the companion	144 (39.9)
What is your preferred healthcare institution for receiving medical services?	State Hospital	134 (37.1)
	Private Hospital	92 (25.5)
	Education Research Hospital	67 (18.6)
	Family Physician	58 (16.1)
	Another	10 (2.7)
Total	361 (100)	

The results of the Washington Scale, administered to determine the level of disability among participants, are presented in Table 2. According to the data, the majority of participants (48.8%) did not experience any difficulties, while the smallest group (3.6%) were disabled in at least one area. Furthermore, 51.2% of healthcare service users reported experiencing at least minor difficulties in one or more areas of disability.

An independent samples t-test was conducted to determine whether the problems encountered by participants in accessing services varied based on whether the institution was private or public. The results of the test are presented in Table 3. The analysis revealed a significant difference only in the social security dimension ($t = 9.20, p < 0.000$) among the scale factors based on institutional type. No significant differences were found in the dimensions of access, psychological support, assistance, and physical and environmental factors. Specifically, the average score for the social security dimension was found to be significantly higher in public hospitals compared to private hospitals.

An ANOVA test was conducted to assess whether the problems experienced by participants in accessing healthcare varied according to their level of disability. The test results are presented in Table 4. Significant differences were found in the social security dimension ($F = 4.50, p < 0.05$) and the auxiliary factors dimension ($F = 3.26, p < 0.01$) between the groups based on their level of disability.

To further investigate these differences, a Tukey Honestly Significant Difference test was performed. The analysis revealed that the average score for the social security dimension was significantly higher for participants experiencing severe difficulty in at least one area compared to those with minor difficulty. Additionally, participants with moderate difficulty in at least one area had a higher average score in the social security dimension compared to those without any difficulty. In the auxiliary factors dimension, it was found that individuals experiencing some difficulty in at least one area had a significantly higher average score compared to those who reported no difficulty. This difference was statistically significant.

Table 2. Disability level in the research sample.

Disability level	n (%)
Those who never have difficulty	176 (48.8)
Have difficulties in at least one area	143 (39.6)
Challenged in at least one area	29 (8.0)
Disabled in at least one area	13 (3.6)
Total	361 (100)

Table 3. Independent samples t-test analysis according to Institution variable.

Institution	Public	Private	t-test
	n= 180 Mean±SD	n=181 Mean±SD	
Social Security	3.49±1.18	2.37±1.14	9.20***
Access	2.95±0.84	2.58±0.83	4.18
Psychological	3.46±0.74	3.91±0.73	-5.82
Auxiliary	2.99±0.80	2.94±0.85	0.57
Physical and Environmental	3.25±0.83	3.48±0.85	-2.63

***: $p < 0.001$.

Table 4. Results of variance analysis according to obstacle level variable.

	1. Those who never have difficulty n=176 Mean±SD	2. Have difficulties in at least one area n=143 Mean±SD	3. Challenged in at least one area n=29 Mean±SD	4. Disabled in at least one area n=13 Mean±SD	F	Differ.
Social Security	3.05±1.30	2.73±1.26	3.46±1.17	2.31±1.13	4.50*	3>2 3>4
Access	2.77±0.83	2.78±0.87	2.51±0.87	3.15±0.71	1.81	-
Psychological	3.65±0.69	3.81±0.80	3.53±0.92	3.31±0.96	2.79	-
Auxiliary	2.88±0.81	3.13±0.78	2.81±0.84	2.75±1.20	3.26**	2>1
Physical and Environmental	3.39±0.82	3.33±0.88	3.49±0.80	3.09±0.91	0.78	-

*: $p < 0.05$; **: $p < 0.01$.

Finally, correlation analysis was applied to reveal the relationships between the corporate variable and the scale dimensions of health care. The results indicated that there was a nearly consistent relationship between the type of hospital (private or public) and the issues encountered, highlighting both the direction and strength of these associations. The test results are summarized in Table 5 as follows: There was a statistically significant negative relationship between the institution variable and the social security dimension ($r=-0.437$, $p<0.000$) and the access ($r=-0.215$, $p<0.000$). On the other hand, significant positive relationships were determined between the institution variable and the psychological ($r=0.294$, $p<0.000$) and the physical/environmental dimensions ($r=0.138$, $p<0.000$). The social security dimension showed significant positive relationships with the access ($r=0.103$, $p<0.05$), the auxiliary factors

($r=0.173$, $p<0.01$), and the physical/environmental dimensions ($r=0.248$, $p<0.01$). However, there was no statistically significant relationship between the social security variable and psychological sub-dimension. The access dimension with the psychological variable ($r=0.131$, $p<0.01$), auxiliary ($r=0.185$, $p<0.01$), and physical and environmental dimension ($r=0.102$, $p<0.05$) was concluded to have a statistically significant relationship with positive direction.

A statistically significant positive relationship was determined between the psychological variable and the auxiliary dimension ($r=0.323$, $p<0.01$) and the environmental dimension ($r=0.512$, $p<0.01$). A statistically significant positive relationship was determined between the auxiliary variable and only the physical/environmental dimension ($r=0.399$, $p<0.01$).

Table 5. Correlation test results.

	Institution Type	Social Security	Access	Psychological	Auxiliary	Physical and Environmental
Institution Type (Private-Public)	1					
Social Security	-0.437**	1				
Access	-0.215**	0.103*	1			
Psychological	0.294**	-0.007	0.131**	1		
Auxiliary	-0.030	0.173**	0.185**	0.323**	1	
Physical and Environmental	0.138**	0.248**	0.102*	0.512**	0.399**	1

*: $p < 0.05$; **: $p < 0.01$.

DISCUSSION AND CONCLUSION

This study aimed to determine the impact of disability levels on the challenges faced by healthcare users, particularly focusing on whether the type of service provider (private or public) and the level of disability influence these challenges. The findings revealed that 51.2% of healthcare users experience at least minor difficulties in one or more areas of disability. This prevalence aligns with previous studies, including those by Dejong et al.⁵ and Danayiyen et al.,⁸ which reported similar rates of disability among healthcare users. In a study conducted in Australia, 26.9% (90/334) of participants reported a disability in at least one area.¹¹ This rate is higher than the studies mentioned above.

The study sought to address the question, “What are the problems healthcare users face when receiving healthcare?” To answer this, the research analyzed various sub-dimensions related to the challenges faced by disabled individuals in healthcare settings. Statistically significant correlations were found between social security, access, utility, physical, and environmental dimensions, indicating that these factors are interrelated and impact healthcare experi-

ences.

The study also found significant relationships between access variables and psychological, auxiliary, physical, and environmental dimensions. De Klerk et al.¹² noted that travel distance affects access to physiotherapy and occupational therapy, emphasizing the need for hospitals to be accessible and equipped with appropriate signage and support for disabled individuals. Some studies highlighted barriers faced by economically disadvantaged populations in accessing healthcare, such as service development failures, lack of prioritization, and insufficient resources.^{7,10,13} These barriers are exacerbated for disabled individuals, affecting their access to care.

A key finding of this study was that individuals receiving services from public hospitals experience fewer difficulties related to social security compared to those using private hospitals. This difference may be attributed to the economic situation of disabled individuals.^{14,15} The results suggest that social security issues significantly influence the choice of healthcare provider, with higher social security scores observed among those with severe disabilities

compared to those with less difficulty. It was observed that disabled individuals experience difficulties in accessing many healthcare services, including basic health services.^{16,17} For example, the study, conducted with 270 participants aged 15 years and older, each with at least 40% disability, investigated the challenges faced by individuals with disabilities in accessing healthcare across various hospitals in Northern India. Specifically, there were no appropriate ramps, accessible stairways, or specially designed toilets, which are essential for facilitating mobility and ensuring a comfortable and safe experience for disabled patients.¹⁴ These findings underscore the critical need for improvements in hospital infrastructure to make healthcare facilities more accessible and inclusive for individuals with disabilities. Notably, the study revealed that problems encountered by disabled individuals in public versus private hospitals primarily relate to social security and auxiliary factors. This suggests a need for public hospitals to improve physical and environmental accessibility. For instance, evaluating and enhancing ramp and stair conditions, the quality of seating in waiting areas, and the presence of directional signage could be crucial for better accommodating disabled patients.^{9,17,14} Health administrators are required to facilitate the receipt of health services by disabled individuals by making necessary arrangements at all stages of the service process, starting from the construction and location selection of health institution buildings and by taking necessary preventive measures.

In conclusion, as Türkiye continues to develop a care-oriented social policy that integrates medical and social models, it is crucial for healthcare managers and designers to adopt a holistic and inclusive approach to service design. This approach should accommodate various levels of disability and ensure accessibility. The study has limitations, including the focus on just two hospitals and the reliance on self-reported data, which may be affected by social factors. An additional limitation is the selection of a non-probability sampling method; furthermore, this situation may prevent us from reaching the desired sample size. Future research should address these limitations by including a broader range of healthcare settings and inpatients and using diverse methodologies. Despite these limitations, the study provides valuable insights into the challenges faced by disabled individuals in healthcare settings. It highlights the need for targeted improvements in both public and private healthcare facilities.

Ethics Committee Approval: Approval for this research was obtained from the Scientific Studies and Ethics Committee of Istanbul Sabahattin Zaim University (Date: 28.02.2023, decision no: 2023/02)

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