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FACTORS AFFECTING THE HEALTH SERVICE UTILISATION OF DISABLED INDIVIDUALS

Ali İhsan Çabuk[1], Ersin Akpinar[2]

[1]Narlıca Number 2 Family Health Center, Adana, Türkiye

[2]Department of Family Medicine, Çukurova University, Adana, Türkiye

Correspondence:

Ali İhsan Çabuk (e-mail: aliihsn@hotmail.com)

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Ankara Yıldırım Beyazıt University Faculty of Medicine

Department of Family Medicine

Abstract

Objectives: Although people with disabilities need health services more, they benefit less from health services. To determine the reasons for this condition, the present study examines the barriers that individuals with disabilities face in accessing health services.

Materials and Methods: In face-to-face meetings, a sociodemographic information form and a questionnaire regarding the obstacles encountered while accessing health services were administered to individuals with disabilities or their parents living in Adana.

Results: 412 disabled individuals between 0.3 and 88 years of age participated in the study. 58.98 % of the participants are men, and 41.01 % are women. While 90.29 % of participants pay for medicine, 91.02 % of participants pay for all kinds of medical supplies, and 92.96 % pay for health services. 64.3 % of participants experience stress while receiving health services. For 70.1 % of the participants, assistant personnel are not assigned in the health institution. 51.2 % of participants do not see sufficient understanding from other patients' relatives, and 52.2% cannot use their right of priority.

Conclusion: Economic conditions and social security rates of disabled individuals are low compared to those of society. The most important obstacle to the access of people with disabilities to health is economic barriers. Other obstacles are that disabled individuals experience stress in the procurement of services, parents with low education level, need their relatives for treatment, not allocating auxiliary personnel in health institutions, not having sufficient understanding from other patient relatives, and not being able to use their rights of priority.

Keywords: Disabled person, health care, access, obstacle, health equity, health disparities.

Introduction

Disability is a concept that has existed throughout human history.[1] It has increased due to occupational accidents and chronic diseases due to the extension of human life after the Industrial Revolution.[2,3] There are more than one billion disabled people worldwide [3] 12.3% of the population in Turkey is disabled.[4] According to the World Disability Report published by the World Health Organization in 2011, "Disability is a human condition. Every person may experience permanent or temporary disability or loss of function at some point in their life. Most extended families have a disabled person, and non-disabled individuals assume the responsibility of their disabled relatives.[5] Disability is the result of a complex relationship between an individual's health status, personal factors, and external factors representing the conditions in which they live.[6]"

The health service needs of disabled individuals may differ depending on their primary health problem. For example, while someone who is visually impaired from birth does not need to see an ophthalmologist constantly, someone with cystic fibrosis or multiple myeloma may need continuous health services for secondary problems and comorbidities that may develop.[5] Disabled individuals have a shorter life expectancy because they experience more secondary and comorbid health problems and have more unmet health needs than the general population.[5,7] Depression is often seen as a secondary problem in disabled individuals, and comorbidities are also higher than in the general population.[5] For example, individuals with mental disorders have an increased risk of infectious and non-communicable diseases.[8] Chronic diseases such as hypertension, cardiovascular diseases, arthritis, and diabetes are significantly more common in disabled individuals than in the non-disabled population.[9] Individuals with mental disabilities have a higher risk of stroke and coronary heart disease before the age of.[7] In addition, it was found that the frequency of colorectal cancer is twice as high in schizophrenia patients.[7] There is also an increase in risky behaviors in disabled individuals. The rate of physical activity in disabled adults is significantly lower than in non-disabled individual.[9] Preventive services, such as screening programs, are provided to individuals with disabilities at a lower rate. Routine breast and cervical cancer screenings are performed significantly less frequently in women with developmental disabilities than in non-disabled individuals.[9] 11.5% of women with developmental disabilities have never been examined by a gynecologist or obstetrician before.[9] 26.8% of women with developmental disabilities aged 40 and over stated that they had never had a mammogram before.[9]

Disabled individuals have a high rate of exposure to violence and abuse. In a meta-analysis, the rate of exposure to domestic violence among individuals with disabilities was 15-22% in women and 4-10% in men. The frequency of exposure to any physical abuse was 20.7% in women and 17.8% in men. Sexual abuse is six times higher than in the general population. It was observed at 9.9% in women and 3.1% in men.[10]

The obstacles to inadequate health care in the World Disability Report; These are listed as not being able to cover examination expenses, not having access to transportation, not being able to cover transportation expenses, healthcare providers not having sufficient equipment, healthcare providers not having sufficient skills, previous ill-treatment, not having enough time, not knowing where to go, and individuals not thinking they are sick enough to seek medical attention.[5] Another systematic review conducted on individuals with mental disabilities over the age of sixteen found that the three most important factors for not benefiting from primary or community health care were: not identifying needs, accessing services, and interacting during consultation with the healthcare institution.[11] 69.8% of disabled individuals in Turkey stated that they "need someone else to follow up on hospital procedures," 53.3% of them stated that they "cannot communicate adequately with healthcare professionals," 47.5% of them stated that "healthcare professionals do not provide information about the disabled individual's health problem," 47.4% of the participants stated that they "have difficulty moving within the healthcare institution," and 45.6% of the participants stated that "there are obstacles in transportation to the healthcare institution."[12]

Our study focused on identifying the obstacles that disabled individuals encounter in accessing healthcare services. We conducted face-to-face interviews with disabled individuals and their parents living in Adana. As a result of this study, the obstacles that disabled individuals face in accessing healthcare services and the situations they encounter in receiving healthcare services will be revealed. The data found will be shared with the public.

Materials and Methods

The present study is a descriptive, cross-sectional study. The research universe consists of disabled individuals living in Adana province. According to the information received from CİMER (Presidency's Communication Centre), the number of disabled individuals in Adana province is 73080 people.[13] The sample size was calculated with the "Epi InfoTM" program. Our calculated sample size was 382 people for a 95% confidence interval. Our study was applied to 431 individuals. 19 people who filled out the questionnaire incompletely due to unknown reasons were not included in our study. The number of participants included in the study was 412 people, and the response rate was 95.6%. Participants were reached in disabled associations and rehabilitation centers. Every individual who wanted to participate in the study and completely filled out the form participated in the study. Individuals who did not agree to participate were not included in the study. The study was initiated on 02.07.2019 and completed on 02.07.2020. Approval was received from the Ethics Committee of Çukurova University Faculty of Medicine on (Date:14.06.2019, No:81) and the Principles of the Helsinki Declaration were followed.

The surveys were filled out face-to-face with the members of disabled associations and individuals who applied to rehabilitation centers under the supervision of various trainers and guidance teachers. Adults and individuals who were able to fill out the survey were asked to fill out the survey themselves, while adults and child participants who could not fill out the survey were asked to fill out the survey with their parents or guardians. An interpreter was provided for hearing-impaired individuals, and the questions were read to visually impaired individuals. The data obtained were transferred to the Microsoft Excel program.

The sociodemographic information form (age, gender, marital status, special education status, who they live with, parents' living situation, if parents are alive, their working status, social security status, average monthly income of the household, disability status and disability rate, when the disability status occurred) and the questionnaire on obstacles encountered while using health services, previously developed by Kördeve, were used.[14] The survey's Cronbach Alpha is 0.824.[14] The questions in the questionnaire were asked.[14] The answers are in the form of a 5-point Likert scale, starting with "never" at the lowest and ending with "always" at the highest. Two of the propositions (propositions 11 and 14) were designed as negative (reverse) coding, while the other propositions were designed as positive coding. The questionnaire consisted of propositions examining the physical conditions of health institutions, the behavior of health personnel, the social security and economic status of the disabled individual, the psychological status of the patient, and the situations that help the disabled individual.

"TURCOSA" statistical software (Turcosa Analytics Ltd Co., Turkey) was used to interpret and analyze the data. Turcosa is a cloud-based statistical software using R.[15] First, the frequency values of the data obtained from our participants were measured. Appropriate non-parametric "Mann-Whitney U" and "Kruskal-Wallis" tests were applied to analyze whether there was a significant relationship between the obtained sociodemographic data and the survey questions. The significance level was accepted as $p<0.05$.

Results

Of the 412 individuals who participated in the present study, 58.98% (n=243) were male and 41.02% (n=169) were female. 93.4% (n= 385) of the participants were single. The average age of the participants was 13.03±13.45 years. (Min=0.3 years, Max=88 years). Individuals who received special education received an average of 6.24±5.66 years of special education. The education level of 50.25% of the mothers and 36.16% of the fathers was primary school or below. 17.72% of the participants did not have health insurance. The disability rates of the participants ranged from 20% to 100%. 45.6% (n=188) of the participants had more than one disability, and 59.22% (n=244) were congenitally disabled." (Table 1). The responses of the participants to the survey questions are shown in Table 2.

Table 1. Sociodemographic characters

		Number (n)	Percentage (%)
Gender	Male	243	58.,98
	Female	169	41.02
Age	Child	330	80.1
	Adult	82	19.9
Marital status	Single	385	93.4
	Married	23	5.6
	Widow	4	1.00
Special Education	In special education	362	87.86
	No special education	50	12.14
Accommodation	Family	402	97.58
	Care center	5	1.21
	Other	5	1.21
Parent	Both alive	349	84.71
	Only the mother is alive	33	8.01
	Only the father is alive	12	2.91
	Both deceased	18	4.37
Mother's educational degree	No education	79	19.18
	Primary school	128	31.07
	High school	112	27.18
	College	37	8.98
	University	56	13.59
Father's educational degree	No education	23	5.58
	Primary school	126	30.58
	High school	146	34.44
	College	40	9.71
	University	77	18.69
Employment of parents	Both unemployed	73	17.72
	Only one parent is	275	66.75
	Both employed	64	15.53
Social security	Yes	339	82.28
	No	73	17.72
Household income	0-1/2 Minimum wage (TL)	41	10.0
	1/2- 1 minimum wage	81	19.7
	1-3/2 minimum wage	197	47.8
	3/2-2 minimum wage	37	8.9
	2 minimum wage and more	56	13.6
Having multiple disabilities	Yes	188	45.6
	No	224	54.4
Disabilities*	Hearing	51	12.38
	Visual	46	11.16
	Speaking	111	26.94
	Orthopedic	66	16.02
	Cognitive zihnsel	197	47.81
	Neurological	153	37.13
	Other	33	8.01
Time of disability	Congenital	244	59.22
	Acquired	168	40.78

*Multiple choices were marked

Table 2. Questionnaire data

	Never		Rarely		Sometimes		Frequently		Always	
	n	%	n	%	n	%	n	%	n	%
In healthcare institutions, telephones, elevators, stairs, and hospital entrances are designed for disabled citizens.	49	11.89	90	21.85	126	30.58	85	20.63	62	15.05
All stairs and ramps in the hospital are designed for disabled people.	36	8.74	91	22.09	121	29.37	101	24.51	63	15.29
The toilets and sinks in the health facility have been designed with disabled citizens in mind.	48	11.65	69	16.75	96	23.30	108	26.21	91	22.09
There are adequate directional signs for disabled people in health institutions.	50	12.14	102	24.76	123	29.85	84	20.39	53	12.86
After the treatment, adequate explanations are made by the relevant health professional.	57	13.84	122	29.61	122	29.61	63	15.29	48	11.65
I can easily have an appointment at the health institution.	60	14.56	102	24.76	105	25.48	73	17.72	72	17.48
In the health institution, there are braille, illuminated, and verbal warnings and signs where disabled citizens can use all their tools and equipment.	77	18.69	108	26.21	114	27.67	73	17.72	40	9.71
Thanks to my social security, I can get my medicines free of charge.	141	34.22	92	22.33	89	21.60	53	12.87	37	8.98
Thanks to my social security, I can get the medical supplies I need for any illness I have, free of charge.	146	35.43	99	24.03	91	22.09	47	11.41	29	7.04
Thanks to my social security, I can receive all kinds of health services free of charge.	117	28.40	108	26.21	97	23.54	49	11.89	41	9.96
I experience stress while receiving services from health institutions.	50	12.14	97	23.54	103	25.00	78	18.93	84	20.39
When I first enter the healthcare facility, I receive the necessary attention and assistance from the staff.	68	16.51	102	24.76	143	34.71	57	13.83	42	10.19
I can go to a health institution and receive treatment without my relative being with me.	120	29.13	114	27.67	74	17.96	52	12.62	52	12.62
The fact that I am given priority during the examination disturbs me psychologically.	184	44.66	97	23.54	70	16.99	33	8.01	28	6.80
There is sufficient, easily accessible disabled parking at the health facility.	78	18.93	95	23.06	134	32.53	63	15.29	42	10.19
I can easily explain my problem to the doctor and healthcare personnel who treat me.	39	9.47	93	22.57	122	29.61	78	18.93	80	19.42
When I first enter a healthcare facility, I can obtain equipment appropriate for my disability.	66	16.02	79	19.18	129	31.31	78	18.93	60	14.56
When I go to a health facility, a staff member is assigned to help me.	190	46.11	99	24.03	68	16.51	38	9.22	17	4.13
While being examined, I receive the necessary understanding from other patients and their relatives.	94	22.81	117	28.40	107	25.97	65	15.78	29	7.04
I do not have to wait in line for outpatient clinic services; I can use my priority right.	96	23.30	119	28.88	84	20.39	66	16.02	47	11.41
Seats for sitting while waiting are suitable for disabled citizens	98	23.79	104	25.24	96	23.30	64	15.53	50	12.14

The differences between the responses of the child and adult age groups to the survey statements are shown in Table 3. According to this table, statements 4 (There are sufficient direction signs for the disabled in health

institutions.), 11 (I experience stress when receiving service from health institutions.), and 13 (I can go to the health institution and receive my treatment procedures without my relative.) were experienced significantly more frequently by the child participants, while statement 18 (When I go to the health institution, a staff member is assigned to help me.) was experienced significantly more frequently by the adult participants (respectively; p=.001, p=.007, p=.004, p=.031).

Table 3. The comparison of the statements in the questionnaire according to age

	Child (n=330)	Adult (n=82)	P
	Median (min-max)	Median (min-max)	
Statement 1	3 (1-5)	3 (1-5)	0.343
Statement 2	3 (1-5)	3 (1-5)	0.078
Statement 3	3.5 (1-5)	3 (1-5)	0.179
Statement 4	3 (1-5)	3 (1-5)	0.001*
Statement 5	3 (1-5)	3 (1-5)	0.200
Statement 6	3 (1-5)	3 (1-5)	0.613
Statement 7	3 (1-5)	3 (1-5)	0.050
Statement 8	2 (1-5)	2 (1-5)	0.527
Statement 9	2 (1-5)	2 (1-5)	0.825
Statement 10	2 (1-5)	2 (1-5)	0.777
Statement 11	3 (1-5)	3 (1-5)	0.007*
Statement 12	3 (1-5)	3 (1-5)	0.960
Statement 13	2 (1-5)	2 (1-5)	0.004*
Statement 14	2 (1-5)	2 (1-5)	0.104
Statement 15	3 (1-5)	3 (1-5)	0.792
Statement 16	3 (1-5)	3 (1-5)	0.994
Statement 17	3 (1-5)	3 (1-5)	0.896
Statement 18	2 (1-5)	2 (1-5)	0.031*
Statement 19	2 (1-5)	3 (1-5)	0.083
Statement 20	2 (1-5)	3 (1-5)	0.271
Statement 21	2 (1-5)	3 (1-5)	0.328

Mann-Whitney U, *p<0,05

Table 4 shows the differences between individuals' status of receiving special education and their responses to the survey statements. According to this table, statements 17 (When I first enter the health institution, I can obtain equipment suitable for my disability (wheelchair, stretcher, voice guidance, etc.)), 18 (When I go to the health institution, a staff member is assigned to help me). 19 (I receive the necessary understanding from other patients and relatives during the examination.) and 21 (The seats to sit on while waiting are suitable for disabled citizens.) are experienced significantly more frequently by individuals who do not receive special education than by individuals who receive special education (respectively, p=.001, p=0.46, p=.020, p=.024).

Table 4: The comparison of statements according to the status of special education

	Special Education (n=362)	No special education (n=50)	p
	Median (min-max)	Median (min-max)	
Statement 1	3 (1-5)	3 (1-5)	.554
Statement 2	3 (1-5)	3 (1-5)	.346
Statement 3	3 (1-5)	4 (1-5)	.112
Statement 4	3 (1-5)	3 (1-5)	.611
Statement 5	3 (1-5)	3 (1-5)	.810
Statement 6	3 (1-5)	3 (1-5)	.071
Statement 7	3 (1-5)	3 (1-5)	.151
Statement 8	2 (1-5)	2 (1-5)	.801
Statement 9	2 (1-5)	2 (1-5)	.652
Statement 10	2 (1-5)	2 (1-5)	.918
Statement 11	3 (1-5)	3 (1-5)	.212
Statement 12	3 (1-5)	3 (1-5)	.114
Statement 13	2 (1-5)	2 (1-5)	.056
Statement 14	2 (1-5)	1 (1-5)	.069
Statement 15	3 (1-5)	3 (1-5)	.788
Statement 16	3 (1-5)	3 (1-5)	.430
Statement 17	3 (1-5)	4 (1-5)	.001*
Statement 18	2 (1-5)	2 (1-5)	.046*
Statement 19	2 (1-5)	3 (1-5)	.020*
Statement 20	2 (1-5)	3 (1-5)	.679
Statement 21	2 (1-5)	3 (1-5)	.024*

Mann-Whitney U, *p<0,05

Discussion

The study shows the socio-demographic status of disabled individuals in Adana province and the situations they encounter while receiving health services. In the study conducted by Aktuğ in 2008, 55.1% of the participants were male.[16] In the study conducted by Karadağ, 62.2% of the participants were male.[17] In the study conducted by Karip, 65.7% of the participants were male.[18] In the study conducted by Yüzüak, 57.4% of the participants were male.[19] These data are consistent with the data of 57% male and 43% female individuals with disabilities in the November 2019 Bulletin of the General Directorate of Elderly and Disabled Services affiliated with the Ministry of Family and Social Services of the Republic of Turkey.[20] In this study, similar to the literature and Turkey in general, the proportion of disabled male individuals is higher.

In our country, the number of special education institutions (formal education) for individuals with disabilities was 342 in the 2001-2002 academic year. While there were 2834 teachers in special education schools and 53,306 students in special education schools, special education classes, and inclusive education, these numbers increased to 1417 schools, 15321 teachers, and a total of 425,774 students in special education schools, special education classes, and inclusive education in the 2019-2020 academic year.[20,21] The number of special

education and rehabilitation centers (non-formal education) was 1318 in the 2006-2007 academic year. 8587 teachers and 131,206 students were receiving education in these institutions. This number reaches 2066 institutions, 26608 teachers, and 438570 students in the 2019-2020 academic year.[20,21] 87.56% of our participants (n=330) receive special education. The average period they have received special education is 6.237 years. The reason for this high rate of disabled individuals receiving special education may be the high rate of students in our sample who are in private rehabilitation and special education institutions. The laws, practices, and improvements made by the Republic of Turkey for the education of disabled individuals have increased the participation of disabled individuals in education.

Since the majority of the students of the special education and rehabilitation centers in the present study were individuals with neurological and speech disabilities, the rates of the individuals we obtained according to their disability groups do not coincide with the data of the Ministry of Family, Labor, and Social Services of the Republic of Turkey. [20]

In Durduran's study, 61% of the participants had a congenital disability.[22] This difference may be due to Durduran's sample only consisting of children. This is because disability increases with age due to chronic diseases.[5] In Aktuğ's study, 63% of the participants later became disabled. It might be due to the location. Their study was conducted in Gölcük after the earthquake, and the average age of the participants was higher than in our study.[16] According to the data of the Ministry of Family, Labor, and Social Services of the Republic of Turkey, the rate of chronic diseases among people with disabilities is 44.33%.[20] In the present study, the rate of congenital disability decreases as the average age increases. In Durduran's study conducted in Konya, 10% of the mothers of the participants were illiterate, while 79.6% of the mothers were primary school graduates. Although the study was conducted in Konya, it was conducted in the city center, and approximately 90% of the mothers were reported to have a low level of education.[22] In Aktuğ's study, 16.7% of the mothers of disabled individuals were illiterate, while 70.6% of the mothers were primary school graduates or only literate.[16] In Karadağ's study, it was stated that 65.3% of the mothers of disabled individuals were primary school graduates.[17] Adana province is in a better position than Konya, Gölcük, and Gaziantep in this regard. It is thought that the difference is due to the socio-cultural differences of the cities and the years in which the studies were conducted. According to the Turkey Demographic and Health Survey 2018, 9% of women in Turkey have no education, while 29% are primary school graduates and 20% are secondary school graduates.[23] In general, mothers of disabled individuals are less educated than the general population.

In Durduran's study conducted in Konya province, 3.2% of the individuals participating in the study had fathers who had no education at all, while 71% of their fathers were primary school graduates.[22] In Aktuğ's study, 5.9% of the disabled individuals participating in the study had illiterate fathers, while 63.4% of their fathers were primary school graduates or only literate.[16] In Karadağ's study, 78.9% of the participants had fathers who were

primary school graduates.[17] This difference may be due to the cultural and economic differences between the cities and the year in which the studies were conducted. According to the "Education at a Glance" report published by the Organization for Economic Co-operation and Development (OECD), the rate of individuals between the ages of 25-34 in the Republic of Turkey in 2018 who did not graduate from secondary school was 43%.[24] This rate was determined as 45% for men and 40% for women. In general, the education level of fathers of disabled individuals is also below the general average of the Republic of Turkey. The reason why the education rates of the fathers of the individuals in the presented study are higher than the rate stated in this report is that the report includes individuals in a certain age range and covers all individuals in the Republic of Turkey.

In Durduran's study, 97% of the participants were unemployed mothers.[22] In Aktuğ's study, 95.8% of the participants have unemployed mothers, and in Karadağ's study, 92.6% of the participants have unemployed mothers.[16,17] This situation may be due to differences in the mother's educational status. Therefore, cultural and economic reasons between cities affect this situation. In Durduran's study, 80.6% of the disabled individuals have health insurance, while 83.3% of the control group have health insurance.[22] In Aktuğ's study, 9.2% of the participants did not have social security.[16] It is thought that this situation is due to economic differences between cities. In the July 2020 statistics of the Social Security Institution (SGK), the insured population rate was stated as 86%.[25] According to the Turkey Disability Survey, 47.55% of those with disabilities other than chronic diseases and 63.67% of individuals with disabilities due to chronic diseases have social security.[4] As in Durduran's study, when the data in our study is compared with the SGK data, it is seen that disabled individuals have lower rates of health insurance compared to the general population. The education level of parents of persons with disabilities is lower than that of the general population, and their household income is also lower. In addition to these situations, the lack of health insurance is also an important issue affecting them. This situation coincides with the fact that poverty increases the rate of disability, as stated in the "World Report on Disability". As stated in the same report, there is a mutual interaction between poverty and disability. There can be disability due to poverty as well as poverty due to disability.[5]

In Karip's study, 2.7% of the participants stated that there is a disabled parking lot, 11% stated that the disabled parking lot is used by other vehicles, and 7% stated that there is no disabled parking lot.[18] In Karip's study, 7% of the participants stated that healthcare personnel assigned to help disabled individuals were assigned to the hospital entrance, 24% received help from the reception, and 73.7% did not receive help.[18] While 22% stated that they benefited from the priority right in the polyclinic, 9.7% partially benefited from it, and 68.3% did not use it.[18] The results are similar to the results of the presented study.

When the survey results of the participants are evaluated, they are generally satisfied with the physical conditions of health institutions. These conditions have been determined by various regulations in our country.

However, there are still situations that need to be improved. For example, according to the "Family Medicine Implementation Regulation", disabled toilets are obligatory only in class A ASMs (Family Health Center). [26] There are also supervisory deficiencies. In the study conducted by Pınar et al., 37 ramps were examined in 26 health institutions. As a result of the examinations, no ramps were found to be fully compliant with the standards. In addition, it was found that there were no ramps at the entrance of three health institutions.[27]

The most common complaint of the participants is that they are not assigned any auxiliary personnel when they apply to health institutions. Although it was decided to provide accompanying personnel for individuals with disabilities in the "Office of the Provision of Health Services for Persons with Disabilities No. 2010/79" with the article "In health institutions, accompanying personnel will be provided to facilitate service receipt for disabled and elderly patients and assist them in their transactions.", the negative responses of more than 70% of the participants show the deficiencies in practice[28] Adult individuals are significantly more likely to be assigned accompanying personnel than children. This is thought to be because children are taken to health institutions with their families.

According to the results of a systematic review conducted in Latin America and the Caribbean, people with disabilities spend more money on health expenditures. Although the number of applications of people with disabilities is higher than those without disabilities, the scope and quality of the service received is lower. The number of preventive health services and screenings is lower.[29]

A systematic review conducted in low- and middle-income countries found that the most common reasons for people with disabilities to access health care are the lack of affordability of services, equipment, or medicines. In addition, distance, transportation problems, lack of companions, discrimination, and communication barriers were listed.[30]

As an unexpected result in our study, individuals who did not receive special education significantly more often than those who received special education stated that they received appropriate equipment, assistive personnel, and understanding from other patients. Although there are various reasons for this situation (age, disability rate, etc.), it shows us that individuals without special education know their rights better.

Since the present study is cross-sectional, there is no cause-and-effect relationship. Although the study reached a sufficient sample size, the selected sample is not stratified according to age or disability status. Since the participants were reached through disability associations and private rehabilitation centers, most of the participants were under the age of 18 and received private rehabilitation. The limitations of the study are the low participation from rural areas and the fact that the questionnaire was completed by parents or dependents instead of disabled individuals under the age of eighteen who were unable to complete the questionnaire. The

fact that it covers all age groups and all types of disability, and that there has not been such a study in Adana province before, is also a strength.

In conclusion, the most important obstacle for disabled individuals to access health is economic barriers. Most disabled individuals pay for health services, medicine, and medical supplies. Disabled individuals have low economic status and social security rates compared to society. The low level of education of disabled individuals and their parents causes them to be less informed about their rights and opportunities. This situation poses an obstacle when getting appointments and services from health institutions. Other obstacles include the stress experienced by disabled individuals in receiving services, the need for relatives for treatment procedures, the lack of allocation of auxiliary personnel in health institutions, the lack of sufficient understanding from other patient relatives, and the inability to exercise their priority rights. Although disabled individuals are relatively satisfied with the physical conditions of health institutions and health personnel, these factors also need to be improved.

To facilitate access to health care for people with disabilities, general health expenditures of disabled individuals should be completely free of charge, and financial incentives should be provided for their treatment and follow-up. The level of education of disabled people and their families should be increased. Barrier-free cities should be created and expanded to facilitate access to health. The performance system based on the number of patients should be abandoned for the payments made to healthcare professionals, and the wages paid to healthcare professionals should be increased for individuals with disabilities whose diagnosis and treatment take a long time. Disability training and incorporating mandatory disability awareness training should be added to the pre-graduation training of health personnel. Community screenings for disabilities should be increased. Mobile healthcare units and home-based medical services should be deployed.

Ethical Considerations: Approval was received from the Ethics Committee of Çukurova University Faculty of Medicine on (Date:14.06.2019, No:81) and the Principles of the Helsinki Declaration were followed.

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References

1. Mackelprang RW, Salsgiver RO. People with disabilities and social work: historical and contemporary issues. *Social Work*. 1996;41(1):7-14. (doi: 10.1093/sw/41.1.7.)
2. Tellioğlu S. Türkiye'de engellilere yönelik sosyal hizmetlerin ve politikalarıntarhiçesi. *Uluslararası Sosyal Bilimler Dergisi*. 2019;88:818-32. (doi:10.16992/ASOS.14871).
3. World Health Organization. Disability and Health. [Internet]. https://www.who.int/news-room/fact-sheets/detail/disability-and-health (Accessed:28.11.2024).
4. Türkiye İstatistik Kurumu. Turkey Disability Survey 2002. [Internet]. https://kutuphane.tuik.gov.tr/pdf/0014899.pdf. (Accessed:27.02.2025).
5. World Health Organization. World report on disability 2011. [Internet]. https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/world-report-on-disability. (Accessed:1.06.2025).
6. World Health Organization. International classification of functioning, disability and health (ICF). Geneva. 2001. [Internet]. https://iris.who.int/bitstream/handle/10665/42407/9241545429.pdf?sequence=1. (Accessed:1.06.2025).
7. Australian Institute of Health and Welfare. Disability and ageing Australian population patterns and implications. Canberra. 2000. [Internet]. https://www.aihw.gov.au/reports/disability/disability-and-ageing-australian-population/summary. (Accessed:1.06.2025).
8. Prince M, Patel V, Saxena S, et al. No health without mental health. *Lancet*. 2007 8;370(9590):859-77. (doi: 10.1016/S0140-6736(07)61238-0).
9. Havercamp SM, Scandlin D, Roth M. Health disparities among adults with developmental disabilities, adults with other disabilities, and adults not reporting disability in North Carolina. *Public Health Reports*. 2004;119(4):418-26. (doi:10.1016/j.phr.2004.05.006).
10. Desai M, Messer LB, Calache H. A Study of the Dental Treatment Needs of children with disabilities in Melbourne, Australia. *Australian Dental Journal*. 2001;46(1):41-50. (doi: 10.1111/j.1834-7819.2001.tb00273.x).
11. Cantrell A, Croot E, Johnson M, et al. Access to primary and community health-care services for People 16 years and over with intellectual disabilities: A mapping and targeted systematic review. *National Institute for Health Research*. 2020. (doi: 10.3310/hsdr08050).
12. Türkiye İstatistik Kurumu. Özürlülerin sorun ve beklentileri araştırması: Türkiye İstatistik Kurumu; 2010.[Internet]. https://data.tuik.gov.tr/Bulten/Index?p=Ozurlulerin-Sorun-ve-Beklentileri-Arastirmasi-2010-6370 . (Accessed:27.02.2025).
13. Personal Comminication with CİMER (Presidency's Communication Centre)

14. Kördeve MK. Engelli bireylerin sağlık hizmeti alımında karşılaştıkları problemler. *Uluslararası Sağlık Yönetimi ve Stratejileri Araştırma Dergisi*. 2017;3(2):14-24.
15. Turcosa Analytics (2020). TURCOSA [Cloud-based statistical software]. Retrieved from https://release.turcosa.com.tr/.
16. Aktuğ E. *Kocaeli İli Gölcük İlçesinde Süreğen Hastalık Dışı Özürlülük Sıklığı, Nedenleri ve Özürlülerin Sorunları.* Yüksek Lisans Tezi, Kocaeli Universitesi, Saglik Bilimleri Enstitusu, Kocaeli; 2008.
17. Karadağ G. Engelli çocuğa sahip annelerin yaşadıkları güçlükler ile aileden algıladıkları sosyal destek ve umutsuzluk düzeyleri. *TAF Preventive Medicine Bulletin*. 2009;8(4):315-22.
18. Karip S. *Engelli Bireylerin Sağlık Hizmetlerine Ulaşılabilirlik Düzeylerinin Belirlenmesi: Konya Örneği.* Yüksek Lisans Tezi, Selçuk Üniversitesi, Sağlık Bilimleri Enstitüsü, Konya; 2016.
19. Yüzüak K. *Ağrı İlinde Yaşayan Engelli Bireylerde İkincil Sağlık Sorunlarının Sıklığı ve Yaş Gruplarına Göre Karşılaştırılması.* Yüksek Lisans Tezi, T.C. Kafkas Üniversitesi, Kars; 2017.
20. T.C. Aile, Çalışma ve Sosyal Hizmetler Bakanlığı Engelli ve Yaşlı Hizmetleri Genel Müdürlüğü. Engelli ve Yaşlı İstatistik Bülteni Kasım-2019: 2019. [Internet]. https://www.aile.gov.tr/media/31492/istatistik-bulteni-kasim2019.pdf. (Acsessed:27.02.2025).
21. T.C. Milli Eğitim Bakanlığı. Milli Eğitim İstatistikleri, Örgün Eğitim 2019/'20. Ankara.2019/2020. [Internet]. https://sgb.meb.gov.tr/meb_iys_dosyalar/2020_09/04144812_meb_istatistikleri_orgun_egitim_2019_2020.pdf. (Accessed:27.02.2025).
22. Durduran Y. *Engelli Çocukların Engellilikleri Dışındaki Sağlık Sorunları ve Sağlık Hizmetinden Yararlanma Durumları: Kontrollü Saha Çalışması*. Doktora Tezi, Selçuk Üniversitesi Sağık Bilimleri Enstitüsü, Konya; 2009
23. Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü. 2018 Türkiye nüfus ve sağlık araştırması. Ankara. 2019. [Internet]. https://fs.hacettepe.edu.tr/hips/dosyalar/Ara%C5%9Ft%C4%B1rmalar%20-%20raporlar/2018%20TNSA/TNSA2018_ana_Rapor_compressed.pdf. (Accessed:27.02.2025).
24. Türk Eğitim Derneği. Bir bakışta eğitim 2019: TEDMEM. 2019. [Internet]. https://tedmem.org/storage/writes/February2023/tAS47e8gvanOc3bATTQE.pdf (Accessed:27.02.2025).
25. T.C. Sosyal Güvenlik Kurumu. Sosyal güvenlik kurumu aylık bülteni sigortalı istatistikleri Temmuz 2020. 2020. [Internet]. https://www.sgk.gov.tr/Istatistik/Aylik/42919466-593f-4600-937d-1f95c9e252e6/. (Accessed:27.02.2025).
26. Aile Hekimliği Uygulama Yönetmeliği. Resmi Gazate, 25.01.2013;28539. [Internet]. https://www.resmigazete.gov.tr/eskiler/2013/01/20130125-26.htm. (Accessed:1.06.2025).
27. Pınar T, Saygun M, Açıkgöz EM, Atçeken İ, Demirtaş H. Kırıkkale il merkezinde bulunan sağlık kuruluşları girişlerindeki engelli rampalarının standartlara uygunluğunun değerlendirmesi. *TAF Preventive Medicine Bulletin*. 2016;15(2):105-11. (doi: 10.5455/pmb.1-1452514819).

28. T.C. Sağlık Bakanlığı Temel Sağlık Hizmetleri Genel Müdürlüğü. 2010/79 sayılı Özürlü Kişilere Yönelik Sağlık Hizmetlerinin Sunumuna İlişkin Sağlık Bakanlığı genelgesi. Ankara. [Internet]. https://www.saglik.gov.tr/TR-11155/201079-sayili-ozurlu-kisilere-yonelik-saglik-hizmetlerinin-sunumuna-iliskin-genelge.html. (Accessed:1.06.2025).
29. Rodríguez Gatta D, Rotenberg S, Allel K, Reichenberger V, Banks LM, Kuper H. Access to general health care among people with disabilities in Latin America and the Caribbean: a systematic review of quantitative research. *Lancet Reg Health Am*. 2024;32:100701. (doi: 10.1016/j.lana.2024.100701).
30. Bright T, Wallace S, Kuper H. A systematic review of access to rehabilitation for people with disabilities in low- and middle-income countries. *Int J Environ Res Public Health*. 2018;15(10):2165. (doi:10.3390/ijerph15102165).