

Physical and social barriers for disabled urban park users: case study from Kastamonu, Turkey

Engelli kent parkı kullanıcılarının fiziksel ve sosyal sorunları: Kastamonu kenti örneği

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ABSTRACT

More than a billion people in the world suffer from some kind of disability, which can affect quality of life. Some people experience physical or social disadvantages depending on the nature of their disabilities. The social disadvantages stem from civic policies that do not take into consideration the needs of disabled people, standards that are not fulfilled and people's prejudices. In this study, barriers that disabled people experience in physical and social environments are examined in terms of open areas and greenspaces. To this end, popular parks in Kastamonu from Turkey were chosen as the study area. In the scope of the study, a questionnaire was given to 124 disabled persons and the relatives of disabled persons and 382 individuals who currently do not have any disabilities. Multivariate linear regression was used in order to evaluate the questionnaire data. The study results indicate that disabled individuals encounter physical and social barriers, and they also confirm that non-disabled people often complain about the same problems as disabled people with regard to the management and running of public parks. Moreover, the study reveals that the actions of public law corporations toward disabled people are not sufficient and public information and awareness-raising activities also fall short.

Keywords: Barrier, disabled, physical environment, social environment, urban park

ÖZ

Dünyada bir milyardan fazla insan herhangi bir tür engellilik yaşamakta, bu durum ise yaşam kalitesini olumsuz yönde etkilemektedir. Engel durumuna bağlı olarak kişiler fiziksel ya da sosyal dezavantajlar yaşamaktadır. Bu durum çoğunlukla uygulanan politikaların engelli insanların ihtiyaçlarını göz önünde bulundurmamasından, standartların yerine getirilmemesinden ve insanların önyargılarından kaynaklanmaktadır. Bu çalışmada engelli kişilerin fiziksel ve sosyal çevrede yaşadıkları dezavantajlar açık ve yeşil alanlar özelinde irdelenmeye çalışılmıştır. Bunun için Türkiye'de Kastamonu ilinde bulunan ve en fazla kullanılan parklar çalışma alanı olarak seçilmiştir. Çalışma kapsamında 124 engelli ve engelli yakınına, 382 adet şu anda engeli bulunmayan bireye anket uygulanması yapılmıştır. Anket verilerinin değerlendirilmesi için multivariate linear regression gerçekleştirilmiştir. Çalışma sonuçları engelli bireylerin parkları kullanımında fiziksel ve sosyal engellerle karşılaştığını gösterirken, şu an engelsiz olan bireylerinde kent parklarını kullanımında engelli bireylerle aynı sorunlardan şikayetçi olduğu tespit edilmiştir. Ayrıca yapılan çalışma kamu tüzel kişiliklerinin engellilere yönelik yaptığı çalışmaların yeterli olmadığını gösterirken, bilgilendirme ve bilinçlendirme konusunda da eksiklikler olduğunu göstermiştir.

Anahtar Kelimeler: Engelli, fiziksel çevre, kent parkı, kullanım olanakları, sosyal çevre

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INTRODUCTION

Everybody is temporarily or permanently disabled at a certain period of his/her life time as he/she cannot or would not healthfully carry out his/her physical or mental activities. It is stated that more than a billion people, or, in other words, 15% of world population suffer from some kinds of disability (WB, 2017). Around 200 million of them have remarkable difficulties in continuing their lives. Yet, everyone is equal and must have equal rights. Therefore, the aim of the Convention on

the Rights of Persons with Disabilities (CRPD), which was adopted in 2006, is stated as "to encourage, ensure and preserve all disabled people to benefit from fundamental freedoms and all human rights completely and equally and to increase the respect towards their personal dignity of being a human being (UN, 2006).

While World Health Survey states the number of disabled people at the age of 15 and over as 785 million (15.6%), Global Burden of Disease survey estimates the number around 975 million (19.2%). While World Health Survey estimates that 110 millions of these people (2.2%) have respectable difficulties in performing their functions, Global Burden of Disease estimates the number of severe disablements in the categories of disabilities such as quadriplegia, severe depression or blindness, as 190 million (3.8%). According to the measurements of Global Burden of Disease survey, 13 million out of 95 million (0.7%) disabled children (between the ages of 0-14) are stated "severe disabled" (WHO, 2011). According to the results of Turkey Disabled Survey conducted by Turkish Statistical Institute in 2002, nearly 12.29% of total population in Turkey and nearly 12.98% of Black Sea Region are disabled (TSI, 2017a). When the families of disabled individuals are added to these numbers, it is obvious that an unignorable number of the total population is either disabled or live with disabled people and, thus, are affected by negative living conditions.

It is possible to encounter people in different age groups, levels of education, occupations, physical and mental structures and socio-economic status in living spaces. Each individual within society has the right of benefiting from equal opportunities. A modern and ergonomic living space means an area which can be accessible by everyone (Altınçekiç and Erdönmez, 2001). State administration is responsible for providing citizens with the opportunity of benefiting from government services equally (Akyılmaz et al., 2017; Gülan, 1988). In the 10th, 42nd, 51st and 60th Acts of the Turkish Constitution on labour matter, it is arranged that everyone is equal before the law and the State is responsible for ensuring the equality of people. It is also arranged that the state has to take necessary measures to rehabilitate people with special needs, it has to preserve children, women and those with physical and mental disabilities privately in terms of working conditions, it has to protect disabled people and take precautions to help them adapt to community life. "United Nations Convention on the Rights of Persons with Disabilities (CRPD) was put into force on 18/12/2008 in Turkey, and the Code about Handicapped no 5378 was enacted". Apart from these legal regulations, a great many legal regulations have been enacted in order to enable people with disabilities to live independently by being respected, given dignity and to take part in every aspect of life.

Disability is a term that comprises a person's non-adaptation to the environment. What is meant by adaption of disabled individuals to the environment is rendering the physical environment for their use. In other words, it is the

reducing of physical handicaps. The main objective here is to give disabled people the right of inclusion to daily life. Physical environment should be made suitable for disabled individuals to achieve this purpose. Hence, Tufan (2006) uses the statement that "People who are called disabled are those who are prevented by some barriers in physical environment".

Both providing special education and enabling the right of benefiting from the physical environment are significant in integrating disabled people with society. However, it is known that disabled individuals encounter social barriers as well, and it is sometimes more difficult to overcome them. The first step to take in overcoming these barriers is the acknowledgement of the disabled by society and sharing the same environment with them. Learning to live with the concept of disability and disabled individuals from childhood would start the process of tolerance and cohesion. Yet, there are great deficiencies in both the perception of "disabled" in society and adaptation of the physical environment for the disabled. These restrictions cause disabled people not to benefit from the environment sufficiently as society routinely does. In the survey held by the Turkish Statistical Institution in 2012 in the areas of registered disabled people about the suitability of physical environment planning to their use, it is determined that 66.9% of them state that pavements, pedestrian ways and crosswalks are not proper. Again in the same survey, it is indicated that 43.3% disabled individuals' state that parks and green areas are not suitable for the use of disabled people. That 34.4% of disabled people do not have any idea about whether the parks and green areas are suitable for their use or not is an attention-grabbing result (TSI, 2017b).

The survey indicates that one of the areas that disabled people encounter problems is parks. Parks are the areas which the city-dwellers use in order to relax, where they find serenity and rest both physically and mentally. Parks are among the public goods presented to the common use of everyone in Turkish Law (Gülan, 1999; Ayanoğlu, 1992; Aydın, 1999). Although benefiting from these areas is the right of disabled people as well as other individuals, social and physical restrictions prevent disabled people from using them sufficiently. For disabled people to benefit from parks sufficiently by removing limitations is primarily possible by identifying the limits, that is determining the problems.

In this study, the aim is to identify factors limiting disabled people from benefiting from parks in the city centre. For this reason, a questionnaire has been conducted to both disabled and non-disabled individuals by interviewing them in and out of parks. By evaluating the questionnaires, it is aimed to determine to what extent disabled individuals benefit from parks, and the physical and social reasons that impede their use of parks. It is also aimed to identify the viewpoint of society to disabled individuals and the level of their interest and knowledge about the problems that disabled individuals encounter.

MATERIALS AND METHODS

Study area

Kastamonu province is located in the north of Turkey, in the West Black Sea Region (Figure 1). Sinop is in the east, Bartın and Karabük are in the west, Çankırı is in the south and Çorum is in the south-east of the city. The north of the city is surrounded by the Black Sea. Founded on Karaçomak valley, the centre of the city is a remarkably old settlement. Researches on the area indicate that the first settlement in Kastamonu dates back to paleolithic age. The city was domineered by Candaroğulları for a long time as 168 years after the settlement of Turks to Anatolia, then it was dominated by the Ottoman Empire in the 14th century and became a city in the 19th century (Bakırcı, 2005).

The population of Kastamonu was determined as 372,373 people (KCP, 2017). Registered disabled people living in Kastamonu were stated as 10,714 people according to National Disabled People Database (NDD, 2013). In the neighbouring cities, the following numbers of disabled people were stated: Bartın 6,571, Karabük 5,674, Sinop 5,650, Çankırı 3,773 (NDD, 2013; Açıkgöz, 2017).

As Kastamonu has the largest disabled population in the region, it has been chosen as the research area. Since the study is carried out in city parks, Kışla Park, Sinanbey Park, Cevizli Park, Cumhuriyet Meydanı Park, İsfendiyarbey Park and Terminal Park have been preferred as they are the most preferred and the most easily accessible ones.

Material

In the scope of the study, in order to determine the problems that the disabled encounter, a survey on 124 disabled and the relatives of disabled, and 382 non-disabled individuals was conducted. Disabled individuals and their families were reached through a special training centre for the disabled in Kastamonu

province. Since the parks in the city centre were chosen for the study, the population of Kastamonu city centre (city centre: 146,103 persons (KCP, 2017) was used as a base with 95% confidence level and 0.05 margin of error while determining the number of questionnaires (Yazıcıoğlu and Erdoğan, 2004). The main materials of the study are comprised of parks chosen as the study area and questionnaires.

In the scope of the survey study conducted to disabled people, participants were asked questions about their demographic features, their disability states, their utilization of parks, encountered problems, to what extent parks meet the needs of disabled individuals, barriers preventing disabled people from integrating with society, the level of knowledge about the rights of disabled people and the expectations of disabled people from formal institutions. In the survey conducted to non-disabled people, their demographic features, whether they use the parks or not, their feelings and thoughts when they are in the same environment with disabled people and their level of knowledge about the studies concerning disabled people were tried to be identified.

Method

Likert Scale was used in the survey study in order to identify the attitudes of participants to the use of urban parks and physical and social problems of disabled people. In the responses received according to the Likert Scale, the average value was used as a base and the evaluations were carried out accordingly. Physical and social problems and expectations of disabled people were tried to be identified through the analyses. There is no ethics committee approval certificate. The study is not about collecting personal or private information.

SPSS package (Statistical Package for Social Sciences Program, Version 19.0, IBM, New York, United States) was used in analysing the data obtained from the research. Multivariate linear regression was carried out in order to find out whether there existed a relationship between the use or non-use states of city parks by participants and disability status. While the use of city parks was chosen as the dependent variable, physical and social factors such as disability status, age, education, income status, transportation and free time were assessed as independent variables (Equation 1);

$$Y=A+b_1x_1+ b_2x_2+ b_3x_3$$

"Y" expresses dependent variable (the status of individuals' usage of city parks), "A" shows the invariance coefficient, "bn" indicates independent variable coefficient and "xn" symbolizes independent variable (gender, age, income status, disability status, transportation etc.).

In order to test the presence of an autocorrelation problem among the variables in the regression model, the Durbin-Watson coefficient is calculated. Durbin-Watson coefficient ranges between zero and four. If the value is close to two, it shows the absence of an autocorrelation problem (Fox, 1997). All analyses were conducted at the 0.01 level of significance.

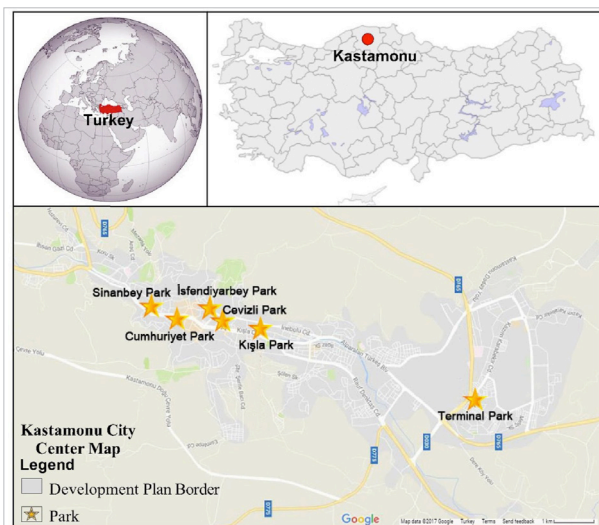


Figure 1. Location map for study areas

RESULTS AND DISCUSSION

In the scope of the study, first, the factors affecting the status of all individuals' usage of city parks were identified and then, the result was explained under the following subtitles since two different questionnaires were applied to disabled and non-disabled individuals.

Factors Affecting the Use of Urban Parks

According to the regression analysis results in order to determine factors affecting the use of urban parks in Kastamonu, it was identified that income status, disability status, free time status, reactions of other people using the parks, the suitability of the parks for usage and accommodation variables were significant according to the 0.01 significance level and the maintenance of parks variable was significant according to the 0.05 significance level. The effect of determined factors on the individuals' use of city parks were identified as 61% ($R^2: 0.611$) (Table 1). No auto correlation was found between those variables (Durbin-Watson coefficient: 1.814). As a result of the F test carried out for the total relevance of the model, the model was found to be statistically significant in total ($\text{sig}: 0.000 < 0.001$) (Table 1).

Multi regression model for the factors affecting the use of urban parks was found out as below (Table 1) (Equation 1):

Equation 1

Use of urban parks = $1.270 + (-0.036) \times \text{income status} + (-0.082) \times \text{disability status} + 0.093 \times \text{transportation status} + 0.070 \times \text{the suitability of parks for use} + 0.185 \times \text{free time status} + 0.063 \times \text{the reactions of other people using the park} + 0.030 \times \text{maintenance of parks}$ It was identified that there was an inverse relationship between the individuals' use of parks and their income and disability states. As the income status ($\beta: -0.036$) and the disability status ($\beta: -0.082$) increased, the use of urban parks decreased (Table 1).

Survey Results Applied to Disabled People

According to the survey results applied to disabled people in order to identify physical and social barriers encountered in urban parks in Kastamonu, it was found that 44.4% of participants were between 31-40 age group, 33.1% were high school graduates and 32.3% had a monthly income between 1,000-1,500 TL. It was also identified that 38.7% of participants were physically disabled while 23.4% were mentally disabled (Table 2).

When the disabled people were asked about whether they were satisfied with using the same parks with non-disabled people, 62.9% stated that they liked it. When they were asked about their acceptance by non-disabled persons, 34.7% stated that they were sometimes accepted while 19.4% stated that they did not gain acceptance (Table 3).

When they were asked about whether parks in Kastamonu met the needs of disabled people, 58.1% of disabled participants stated that it did not meet their needs while 36.3% stated that it partially met their needs. It was observed that 51.6% of disabled people were not informed about the works of municipality and non-governmental organizations concerning disabled people, 44.4% of them were not aware of the applications concerning legislation on disability. Moreover, 72.2% of participants stated that the applications of formal institutions were insufficient in meeting the needs of disabled people (Table 4).

When they were asked about the kinds of arrangements to be made in parks in order to meet the physical needs of disabled people, they stated that problems that made the access to the parks difficult should be resolved (avg: 4.19), proper decking materials should be used (avg: 4.08) and furniture should be arranged according to the disabled (avg: 3.96). When problems that disabled people encounter were examined within a social perspective, the reasons preventing

Table 1. Coefficients of factors that affect the use of Kastamonu urban parks

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	1,270	,052			24,639	,000
Income	-,036	,013	-,078		-2,756	,006
Disability status	-,082	,021	-,129		-3,875	,000
Transportation status	,093	,015	,249		6,143	,000
Suitability of parks for use	,070	,017	,189		4,180	,000
Free Time Status	,185	,015	,415		12,219	,000
Reactions of other people using the parks	,063	,024	,112		2,684	,008
Maintenance of parks	,030	,016	,084		1,962	,050
R,782 ^a	R Square,611	Adj. R Square 0,606	Std. Error 0,448	Durbin-Watson 1,814	F 111,915	Sig. .000 ^a

^a: Significant at a level of 1%

disabled people from integrating with society were stated by the participants as the negative view of society to disabled people (avg: 3.83), that local governments did not constitute sufficient social environment for the disabled (avg: 3.83) and that state institutions and organizations did not carry out necessary work (avg: 3.81). Moreover, the status of the disabled (avg:3.64) was also stated as one of the significant barriers in integrating with society. When the one who had the most significant role in integrating the disabled with society was asked, it was stated that this role mostly belonged to the non-disabled (avg: 4.13). Moreover, the families of the disabled (avg: 3.82) possessed an important role in integrating with society (Table 5).

Survey Results Conducted to Non-Disabled People

According to the survey results conducted to non-disabled people so as to identify physical and social barriers encountered while using the urban parks in Kastamonu, it was stated that 30.9% of participants were between the ages of 21-30, 63.9% were university graduates, 29.1% earned between 0-500 TL monthly income and 28.0% earned 2,500 TL and over (Table 2).

It was determined that 95.5% participants did not feel uncomfortable about using the same parks with the disabled. When whether the disabled gain acceptance by the non-disabled in parks was asked, 39.8% stated that they sometimes gained acceptance while 30.6% stated that they gained acceptance (Table 3).

Table 2. Demographic Features of Kastamonu Urban Park Users

Demographic features	Groups	Disabled		Non-disabled		Total	
		n	%	n	%	n	%
Age	15-20	3	2,4	112	29,3	115	22,7
	21-30	22	17,7	118	30,9	140	27,7
	31-40	55	44,4	81	21,2	136	26,9
	41-50	35	28,2	51	13,4	86	17,0
	>50	9	7,3	20	5,2	29	5,7
	Total		124	100	382	100	506
Education	primary education	4	3,2	21	5,5	25	4,9
	high school	37	29,8	92	24,1	129	25,5
	university	41	33,1	244	63,9	285	56,3
	postgraduate	42	33,9	25	6,5	67	13,2
	Total		124	100	382	100	506
Income	0-500	13	10,5	111	29,1	124	24,5
	501-1000	24	19,4	46	12,0	70	13,8
	1001-1500	40	32,3	57	14,9	97	19,2
	1501-2500	20	16,1	61	16,0	81	16,0
	>2501	27	21,8	107	28,0	134	26,5
	Total		124	100	382	100	506
Disability status	Non-disabled	0	0	382	100	382	75,5
	Mentally disabled	29	23,4	0	0	29	5,7
	Physically disabled	48	38,7	0	0	48	9,5
	Visually disabled	4	3,2	0	0	4	0,8
	Speech handicapped	8	6,5	0	0	8	1,6
	Hearing impaired	7	5,6	0	0	7	1,4
	Other	23	18,5	0	0	23	4,5
	Physical, speech, other impaired	1	0,8	0	0	1	0,2
	Speech, hearing impaired	1	0,8	0	0	1	0,2
	Physical, visual, hearing impaired	1	0,8	0	0	1	0,2
	Mentally, physical, visual, speech impaired	1	0,8	0	0	1	0,2
	Mentally, physical, speech impaired	1	0,8	0	0	1	0,2
	Total		124	100	382	100	506

It was identified that 54.7% of non-disabled participants stated that urban parks in Kastamonu did not fulfill the needs of the disabled and 40.8% stated that they partially fulfilled their needs. When they were asked whether they were aware of the works of the municipality and non-governmental organizations concerning the disabled in the city of Kastamonu, 53.9% of non-disabled participants had the answer “no”. Also 52.6% of participants stated

that they did not know anything about the laws and regulations conducted for the disabled. Moreover, 65.2% of participants stated that the applications of public legal entities were insufficient in meeting the needs of disabled people (Table 4).

According to spatial context, when the physical arrangements like urban furniture, pavement, signs etc. to be made in parks in order

Table 3. The attitudes of Kastamonu urban park users

Demographic features	Groups	Disabled		Non-disabled		Total	
		n	%	n	%	n	%
Are you pleased with using the park together with other individuals?	Yes	78	62,9	365	95,5	443	87,5
	No	22	17,7	12	3,1	34	6,7
	Sometimes	24	19,4	5	1,3	29	5,7
	Total	124	100	382	100	506	100
Do the disabled people gain acceptance by the non-disabled people in the park?	Yes	41	33,1	117	30,6	158	31,2
	No	24	19,4	68	17,8	92	18,2
	Sometimes	43	34,7	152	39,8	195	38,5
	I have no idea	16	12,9	45	11,8	61	12,1
	Total	124	100	382	100	506	100

Table 4. Identification on the usage status of Kastamonu urban parks by disabled people

Demographic features	Groups	Disabled		Non-disabled		Total	
		n	%	n	%	n	%
Do the parks in Kastamonu meet the needs of disabled people?	Yes	7	5,6	17	4,5	24	4,7
	No	72	58,1	209	54,7	281	55,5
	Partially	45	36,3	156	40,8	201	39,7
	Total	124	100	382	100	506	100
Do you know the studies of municipality and non-governmental organizations for the disabled people?	Yes	30	24,2	74	19,4	104	20,6
	No	64	51,6	206	53,9	270	53,4
	I have no idea	30	24,2	102	26,7	132	26,1
	Total	124	100	382	100	506	100
Do you know the laws, regulations etc. enforced for disabled people?	Yes	36	29,0	87	22,8	123	24,3
	No	55	44,4	201	52,6	256	50,6
	I have no idea	33	26,6	94	24,6	127	25,1
	Total	124	100	382	100	506	100
Are the applications sufficient in meeting the needs of disabled people?	Yes	12	9,7	20	5,2	32	6,3
	No	92	74,2	249	65,2	341	67,4
	I have no idea	20	16,1	113	29,6	133	26,3
	Total	124	100	382	100	506	100

to meet the needs of disabled people were asked, it was stated that furniture should be arranged properly (avg: 3.48). Arrangements such as removing the transportation difficulties (avg:2.97), removing the deficiencies of traffic signs (avg:2.67), enabling sufficient lightning (avg:2.71) were stated unimportant (Table 5).

From a social perspective, when the reasons preventing disabled people from integrating with society were observed it was determined as the following: negative view of society towards the disabled (avg:3.48), that the municipality did not constitute sufficient social environments for the disabled (avg:3.77) and that public institutions and organizations such as governorship, ministry, etc. did not fulfill adequate studies (avg:3.60). Moreover, the status of the disabled was stated as not being a significant factor in integrating with society (avg:2.97) (Table 5).

It was determined that non-disabled individuals had the most significant role in integrating the disabled with society (avg:4.19). Besides, public institutions and organizations such as governorship and ministry (avg:3.62), municipalities (avg:3.42), non-governmental organizations (avg:3.54) and the families of the disabled (avg:3.29) were stated as having a significant role in the integration of the disabled with society (Table 5).

CONCLUSION

Although it is emphasized in all kinds of international platforms that each individual should have equal rights and freedom, disabled people, forming a significant part of society, still encounter many physical and social problems during their lives. Though societies seem to make efforts to solve these problems, researches indicate that disabled people still encounter physical and social barriers. The results of the study conducted in Kastamonu city centre supports these identifications.

Factors affecting the usage status of urban parks physically and socially have tried to be determined by regression analysis carried out in the scope of the study. According to the survey results, conducted with both disabled and non-disabled people, the most significant factor affecting the usage of parks in Kastamonu is identified as the free time status of individuals (β :0.185). However, when the factors in terms of physical and social barriers that the users face at parks are evaluated, the most important physical barriers are identified as transportation status (β :0.093). The accessibility of parks is the most significant issue for all individuals. The disability status of individuals (β :-0.082) comes up as one of the factors affecting the use of

Table 5. Identifications about the physical and social barriers encountered by the disabled people in the usage of Kastamonu urban parks

Demographic features	Suggestion	Significance Level Average	
		Disabled	Non-disabled
What kind of arrangements should be carried out in order for the parks to be used by everyone?	Problems making transportation difficult should be removed	4,19	2,97
	Signs should be used	3,36	2,67
	Adequate lightning should be enabled	3,38	2,71
	Proper decking should be used	4,08	3,16
	Furniture usable by everyone should be used	3,96	3,48
	Hygiene and maintenance should be attached importance	3,83	3,30
	It should be safer	4,28	3,31
Reasons of preventing the disabled from integrating with the society	Status of the disabled	3,64	2,97
	Negative viewpoint of society to the disabled	3,83	3,48
	Municipality do not constitute adequate physical and social environment for the disabled	3,65	3,77
	Institutions such as governorship and ministry do not carry out adequate studies	3,81	3,60
To whom does the role of integrating the disabled with the society belong most?	To the disabled himself/herself	2,85	2,65
	To the family of the disabled	3,82	3,29
	To the municipality	3,55	3,42
	To the institutions such as governorship and municipality	3,77	3,62
	To the non-governmental organizations	3,49	3,54
	To the non-disabled people	4,13	4,19

parks. The results of the study indicate that the increase in the disability status of individuals impedes the usage of parks. Another factor affecting the use of parks is the suitability of parks ($\beta:0.07$) for the use of individuals. One of the social barriers determined in the study is that the use of parks depends on the reactions of other people using the park. Though both disabled and non-disabled people state that they do not feel uncomfortable using the parks together, it is identified by the regression analysis conducted to them that the reactions of other individuals affect themselves, indeed. It is thought that this result comes up as disabled and non-disabled people's opportunities in using the parks together are limited. Similar results are seen in the studies of Prellwitz and Tamm (1999), Talay et al. (2010), Moore and Lynch (2015). Income status of the individuals and maintenance of parks are observed as the other factors affecting the use of parks. It is observed that the use of parks have decreased depending especially on the improvement of income. It may depend on the decrease in the free times of people whose income have increased and show that they do not get service in the quality and diversity as they have expected, depending on the increase in their income.

It is stated both by the disabled and non-disabled individuals that parks in Kastamonu are insufficient in meeting the needs of disabled people physically. Insufficient arrangements in meeting the needs of the disabled at parks are stated as furniture (dustbin, sitting unit, signs, etc). Moreover, the necessity to remove transportation difficulties is emphasized by the participants. In sum, it is observed that deficiencies determined by disabled and non-disabled people are common.

When problems encountered by disabled people are examined socially, it is determined that disabled and non-disabled people refer to the same points. Reasons preventing the disabled from integrating with society are stated primarily coming up as local governments, state and public legal entities do not fulfill necessary work. The negative view of society towards the disabled and their status are determined as forming further barriers in integrating with society. It is because when disabled and non-disabled people are asked whether they feel uncomfortable using the same park together, the majority of them state that they do not feel uncomfortable (the disabled 62.9% and non-disabled 95.5%).

While both groups state that the most significant role in the integration of disabled people with society belongs to the disabled themselves, it is stated that the local government and other public legal entities play a significant role, as well. Therefore, if disabled people are provided with necessary opportunities by the local government and public legal entities and necessary arrangements are made in parks, it is thought that there would be nothing to prevent the use of parks by disabled and non-disabled people together.

One of the remarkable results of the study is that the disabled and non-disabled participants have stated that they are not aware of the studies of the local government and/or non-gov-

ernmental organizations concerning the disabled. It comes to existence that the local government and other public legal entities should inform the interest groups as well as make the necessary arrangements at parks (Akyılmaz, 2000). In Turkey, in order to provide full participation of the disabled to social life, it is ensured in the 2nd provisional article of the law no 5378 that current formal institutions that belong to state institutions and organizations, current roads, pavements, crosswalks, open and green areas, sports areas and similar social and cultural areas and any structures built by natural and legal persons and open to public service should be accessible to the disabled. The 8-year period allotted to fulfill these applications started on 7/7/2005 (OG, 2005). Yet, both this study and the study conducted by Sirel et.al. (2012) at Adana Çukurova University Campus, Alp's study (2014) regarding İstanbul University Beyazıt Campus, the study of Olgun and Yılmaz (2014) regarding Niğde Kızılelma Park, True and Türel's study (2013) regarding İzmir, Bayraktaroğlu and Büke's study (2015) concerning İstanbul Fenerbahçe-Pendik coastline indicate that studies in Turkey are not at a sufficient level and that the interest groups are not adequately informed about the studies.

However, in the 3rd subclause of the 5th article of United Nations Convention on the Rights of Persons with Disabilities, which Turkey became part of in 2008, the following statement "Contracting countries take all necessary steps to make reasonable arrangements concerning the disabled in order to ensure equality and remove discrimination" appears and it is stated in the scope of the convention that active campaigns should be designed, started and continued in order to increase the awareness concerning the disabled in all parts of society, including the families, and in order to raise awareness in society for ensuring respect for the rights and human dignity of the disabled (OG, 2009). It is determined with this study that society in fact is not aware of the legal and physical arrangements and there still exists prejudice towards the disabled within society in a social sense.

Consequently, the study results indicate that disabled people still do not have the same rights as other individuals and the rate of using communal areas is far from being equal. Although local governments and other public legal entities conduct the necessary studies in terms of legal and physical aspects, the studies are not at a sufficient level and individuals are not informed of these studies. Factors affecting the use of urban parks should be assessed according to their importance as soon as possible and the deficiencies should be eliminated without wasting time. The disabled should be enabled to live independently and to participate in all areas of life. It should not be forgotten that each individual is disabled at some point of his or her life.

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