

Preferences and Constraints: A Study on Urban Outdoor Sportive Recreation Areas

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Abstract

It is increasingly important to identify the determinants and barriers to the use of urban parks. To this aim; the sample group in the study, which was carried out to determine the participation preferences and constraints of individuals using open space urban recreation areas, consists of 629 people using 11 urban open recreation areas in Turkey's Ankara province. In addition to the demographic questionnaire, "Preference Factors of Recreation Areas" (PFRA) and "Sportive Recreation Barriers Scale" (SRBS) scales were used to collect the data. Frequency, arithmetic mean and standard deviation were used to analyze the data. Independent sample t test and one-way analysis of variance ANOVA test were applied to determine the difference since homogeneity and normal distribution conditions were fulfilled. Correlation coefficients were given by Pearson product-moment correlation coefficient and regression analysis was used. The findings obtained can be stated that individuals who use open space recreation areas in Ankara province have a high preference for recreation area participation and perceive sportive recreation barriers at average values. It was determined that the variables such as gender, education level, marital status and reasons for going to recreational areas significantly differentiated recreation area preference factors and sportive recreation barriers. It was found that there was a statistically significant relationship between PFRA and SRBS, and it was also found to be a factor in explaining the barriers to sportive recreation. Within the scope of the findings obtained, the findings were discussed with the support of the literature in terms of evaluating the preference factors of open space urban recreation area users for using parks and the barriers that they may encounter.

Keywords: Preference, Constraint, Sportive, Recreation

INTRODUCTION

In the accelerating pace of life of urban individuals, time for recreation and entertainment is a necessity for a healthy physical (Satilmis, Bilgin & Odemis, 2023) and mental life. The decrease in people's natural movements, intensive working hours and the associated health problems have led to the fact that recreational areas are gaining importance day by day. In this sense, sports recreation plays an important role in human life. The type of recreation that is based on physical activity or the use of various sports for recreational purposes and accounts for a large proportion of leisure activities is called sports recreation. Sporting recreation is not only an important area of activity for people's leisure activities, but also plays an important role in the spread and recognition of sport in society and in achieving sporting success. Sports recreation can be divided regionally into rural and urban, spatially into indoor-outdoor and formally into active-passive.

Urban recreation is the leisure activities that people engage in within the city limits, especially in the city center, in open or enclosed areas. These are usually activities that people can easily access in their immediate surroundings in their short leisure time. Urban sports recreation is a type of recreation that includes sports activities that people engage in as participants (active) or spectators (passive) in their leisure time, usually within the city limits where they live, without material expectations, for purposes such as entertainment, recreation, renewal, stress relief, fitness, healthy living and socialization (Karademir, 2023; Satilmis, Bilgin & Odemis, 2023; Ozavci, 2023; Elveren & Celebi, 2024). The places that constitute urban sports recreation areas can be listed as neighborhood parks, walking and jogging paths, recreation areas with sports equipment suitable for daily use

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and public use, bicycle paths, soccer, basketball and volleyball courts, landmarks, theme parks, indoor-outdoor sports halls, stadiums, tennis courts, walking paths and routes near the city, public green areas and gardens.

In this sense, leisure constraints can be defined as “the inability or difficulty in participating in leisure activities due to personal or environmental influences” (Crompton, Jackson, & Witt, 2005; Ünlü & Çeviker, 2022). The theory presented almost 30 years ago by Crawford and Godbey (1987) and Crawford, Jackson, Godbey (1991) introduced the dimensions of levels of analysis for modern thinking about the factors that promote and inhibit leisure activities. In this way, the theoretical construct of individual, interpersonal and structural constraints was introduced and linked to the introduction and explanation of the relationships between the constraints and preferences for leisure and subsequent leisure activities. This model links the three dimensions, which are arranged hierarchically from the most proximal (individual) to the most divergent (structural). Later, Jackson, Crawford, and Godbey (1993) extended the model to suggest that final leisure behavior is based on the successive successful compromise of these levels of constraints (Godbey, Crawford, & Shen, 2017). The aim of this study is to determine whether the barriers to sports recreation and preferences for recreation areas of people using urban open sports recreation areas in Ankara differ according to gender and marital status, and to determine the relationship between the barriers to sports recreation and preferences for recreation areas of the participants.

METHOD

The study was conducted with quantitative research method and the method of the study is descriptive according to its purpose, cross-sectional according to the time of the study, and questionnaire study according to the data collection method. The research was designed in survey model. The sample group consists of 629 people who use 11 urban open recreation areas (District of Altınpark, Göksu, Lausanne, Seğmenler, Blue Lake, Esertepe, Ihlamur Valley, Gençlik, Çankaya, 100. year and 50. year parks) in Turkey’s Ankara Province (Mid-age= 28.78 ± 3.98). In the selected areas, there are walking and jogging trails that allow for sportive recreation, recreation areas with sports equipment suitable for daily use and public use, bicycle trails, football, basketball and volleyball fields, indoor and outdoor sports halls, stadiums and at least two tennis courts. Dense settlements have been taken into account. There is approximately 20 m² of green space per person in Ankara (www.ankara.bel.tr). After obtaining the necessary permissions, 11 recreation areas were visited by the researchers during the data collection phase, and after the people were informed about the study, the data collection tool was filled in on a voluntary basis.

The “Preference Factors of Recreation Areas” (PFRA) developed by Gümüş and Özgül (2014) and the “Sportive Recreation Barriers Scale” (SRBS) developed by Şahin and Kocabulut (2014) using Alexandris and Carrol (1997) were used to question the factors that are effective in individuals’ preference for recreation areas built by municipalities.

Preference Factors of Recreation Areas (PFRA). It consists of 5 sub-dimensions and 24 items. The internal consistency coefficients of the sub-dimensions of the recreation area preference factors scale determined in the current study were calculated as 0.69 for the “Sportive diversity” sub-dimension, 0.71 for the “Personnel” sub-dimension, 0.60 for the “Location” sub-dimension, 0.78 for the “Physical facilities” sub-dimension and 0.82 for the “Activity” sub-dimension. The total internal consistency coefficient was determined as 0.89.

The “Sportive Recreation Barriers Scale” (SRBS) consists of 7 sub-dimensions and 21 items. In the current study, the internal consistency coefficient for the total scores obtained from the measurement tool was determined as 0.90. The internal consistency coefficients for the sub-dimensions of the measurement tool were determined as 0.79 in the lack of information sub-dimension, 0.80 in the lack of facilities sub-dimension, 0.60 in the social environment sub-dimension, 0.65 in the transportation problem sub-dimension, 0.66 in the lack of interest sub-dimension, 0.75 in the individual psychology sub-dimension and 0.68 in the feeling of fatigue sub-dimension.

Data Analysis

Frequency, arithmetic mean and standard deviation were used to analyze the data. Independent sample t-test and one-way analysis of variance ANOVA test were applied to determine the difference since homogeneity and

normal distribution conditions were fulfilled. Correlation coefficients were given by Pearson product-moment correlation coefficient.

As a result of the findings based on demographic data, it was determined that the majority of the participants were female (54.5%) and the average age was 28.2 years. The majority of the participants were single with no children (63.4%) and married with children (28.5%). The majority of the participants (70.6%) did not have a private vehicle. The majority of the participants stated that they do sports once a week (21.8%) and twice a week (21.9%). The most common reasons for coming to urban open recreation areas were “sightseeing” (28.1%), “walking” (14.9%) and “jogging” (14.9%). Participants state their health status as “good” (45.6%). Their perceived income level is generally normal (58.6%), and the proportion of those who describe their weekly leisure time as normal is 30.3%.

Table 2. Arithmetic Mean, Standard Deviation and Normality Distributions for the Scales

	Min.	Max.	\bar{X}	sd	Skewness	Kurtosis
*PFRA	1.25	5.00	3.93	1.25	-.435	.919
Sporting diversity	1.00	5.00	4.04	1.00	-.792	.987
Personnel	1.00	5.00	4.00	1.00	-.816	.902
Location	1.00	5.00	4.00	1.00	-.577	.593
Physical facilities	1.00	5.00	4.04	1.00	-.594	.787
Activity	1.00	5.00	3.59	1.00	-.427	-.113
**SRBS	1.00	5.00	3.51	1.00	-.456	.463
Lack of information	1.00	5.00	3.37	1.00	-.447	-.369
Lack of facilities	1.00	5.00	3.55	1.00	-.701	-.029
Social environment	1.00	5.00	3.75	1.00	-.747	.413
Transportation problem	1.00	5.00	3.73	1.00	-.727	.475
Lack of interest	1.00	5.00	3.50	1.00	-.533	-.297
Psychology of the individual	1.00	5.00	3.23	1.00	-.225	-.847
Feeling of fatigue	1.00	5.00	3.35	1.00	-.432	-.596

*PFRA: Preference Factors of Recreation Areas; **SRBS: Sportive Recreation Barriers Scale

It was determined that the total recreation area participation preference levels of the participants were high, the highest preference factors were sporting diversity and lack of facilities, while the lowest preference factors were personnel and location.

While the total SRBS scale was at average values, it was determined that the highest barrier was social environment and the lowest factor was psychology of the individual.

Table 3. Independent Sample T Test Results between Scales and Gender Variables

Scale	Gender	n	\bar{X}	sd	t	p
PFRA	Male	286	3.84	.56	-3.840	0.000*
	Female	343	4.01	.50		
Sporting diversity	Male	286	4.00	.74	-1.546	0.123
	Female	343	4.08	.67		
Personnel	Male	286	3.91	.75	-2.941	0.003*
	Female	343	4.08	.68		
Location	Male	286	3.93	.71	-2.417	0.016*
	Female	343	4.06	.67		
Physical facilities	Male	286	3.94	.60	-3.877	0.000*
	Female	343	4.12	.54		
Activity	Male	286	3.48	.90	-2.784	0.006*
	Female	343	3.68	.84		
SRBS	Male	286	3.41	.72	-3.229	0.001*
	Female	343	3.59	.66		
Lack of information	Male	286	3.32	1.02	-1.108	0.268
	Female	343	3.41	.99		
Lack of facilities	Male	286	3.42	.96	-3.140	0.002*
	Female	343	3.66	.91		
Social environment	Male	286	3.62	.93	-3.294	0.001*
	Female	343	3.86	.84		
Transportation problem	Male	286	3.58	.95	-3.872	0.000*
	Female	343	3.85	.80		
Lack of interest	Male	286	3.37	.98	-3.017	0.003*
	Female	343	3.60	.93		

Psychology of the individual	Male	286	3.18	1.05	-1.171	0.242
	Female	343	3.28	1.04		
Feeling of fatigue	Male	286	3.33	1.11	-0.329	0.742
	Female	343	3.36	1.12		

*p<0.05

Table 3 shows that participants' PFRA and SRBS levels differ significantly according to gender. It is observed that all the differences are in favor of female participants. Therefore, in the current sample group, recreation area preference factors and sportive recreation barriers were determined to be higher in women than in men. As a result of the analysis between education level, which is another variable, and measurement tools, there is only a significant difference in the sporting diversity sub-dimension. In-group analyses reveal that there is a significant difference in favor of bachelor's degree and above graduates. Therefore, it can be said that the higher the level of education, the more differentiated the perceived barriers and preference factors become.

Table 4. One-Way Analysis of Variance ANOVA Test Between Scales and reasons for coming to parks

Scales-Sub-dimension	Reason for coming	n	\bar{x}	sd	F	p
PFRA-Sporting diversity	Bicycle	30	4.21	.56	2.125	0.032*
	Play with children ^a	80	4.08	.58		
	Sightseeing ^b	177	4.07	.72		
	Running	94	4.13	.64		
	Dog walking ^c	21	4.00	.78		
	Picnic	34	4.04	.83		
	Skate	10	4.06	.69		
	Spending time ^d	89	3.77	.80		
	Walking	94	4.09	.65		
	Total	629	4.04	.70		
	Total	629	3.59	.87		
SRBS-Lack of information	Bicycle ^f	30	3.20	1.10	2.440	0.013*
	Play with children	80	3.37	.91		
	Sightseeing ^d	177	3.41	.98		
	Running ^c	94	3.48	1.06		
	Dog walking ^a	21	3.84	1.01		
	Picnic ^b	34	3.73	.79		
	Skate	10	3.60	.91		
	Spending time ^e	89	3.24	.98		
	Walking ^g	94	3.11	1.06		
	Total	629	3.37	1.00		
	Total	629	3.33	1.00		
SRBS-Psychology of the individual	Play with children ^f	80	3.27	1.03	2.614	0.008*
	Sightseeing ^e	177	3.30	1.04		
	Running ^g	94	3.22	.96		
	Dog walking ^c	21	3.55	1.06		
	Picnic ^b	34	3.53	.92		
	Skate ^a	10	3.56	.90		
	Spending time ^h	89	3.23	1.05		
	Walking ^g	94	2.83	1.15		
	Total	629	3.23	1.05		

*p<0.05; a>b>c

Participants' reasons for going to recreation areas differ from the reasons for participation and barriers to sports recreation areas. While playing with children was the most common reason for participation on the sporting diversity sub-dimension of the PFRA, on the lack of knowledge sub-dimension of the SRBS, individuals who primarily went to parks to walk dogs were found to have higher levels of lack of knowledge. In the psychology of the individual sub-dimension, it was found that the scores of those who went to the park to roller skate were higher. Accordingly, it can be said that the preferences of individuals who prefer to use parks for different reasons significantly change the scores of PFRA and SRBS. While there was no significant difference in the sub-dimensions of PFRA (F= 1.794; p= 0.075), staff (F= 1.836; p= 0.068), location (F= 0.844; p=0.564), physical facilities (F= 1.824; p=0.070) and activity F= 1.680; p=0.100), there was no significant difference in SRBS (F=1.858; p=0.064), lack of facilities (F=1.928; p=0.053), social environment (F=1.907; p=0.056), transportation problems (F=1.298; p=0.241), lack of interest (F=1.190; p=0.302), feeling tired (F=0.862; p=0.549).

Table 5. Correlation table findings between measurement tools

PFRA	1													
Sporting diversity	.660**	1												
Personnel	.752**	.515**	1											
Location	.657**	.381**	.363**	1										
Physical facilities	.871**	.470**	.547**	.574**	1									
Activity	.771**	.372**	.474**	.348**	.509**	1								
SRBS	.369**	.212**	.253**	.270**	.310**	.318**	1							
Lack of information	.127**	.077	.052	.094*	.113**	.122**	.664**	1						
Lack of facilities	.362**	.263**	.295**	.198**	.296**	.292**	.789**	.534**	1					
Social environment	.422**	.280**	.388**	.210**	.347**	.335**	.711**	.357**	.574**	1				
Transportation problem	.361**	.182**	.240**	.294**	.326**	.286**	.701**	.316**	.444**	.560**	1			
Lack of interest	.293**	.141**	.168**	.291**	.262**	.232**	.766**	.353**	.495**	.455**	.558**	1		
Psychology of the individual	.140**	.039	.051	.151**	.095*	.173**	.732**	.374**	.404**	.332**	.366**	.587**	1	
Feeling of fatigue	.137**	.055	.061	.127**	.106**	.148**	.637**	.329**	.354**	.304**	.340**	.391**	.619**	1

*p<0.01

The findings of the correlation table, in which the relationships between PFRA and SRBS were determined, showed that there was a positive linear relationship between the measurement tools and that the relationship levels were low and medium.

Table 6. Results of multiple linear regression analysis between measurement tools

	B	Std. hata	β	t	P
(Constant)	1.687	.204		8.257	.000
Sporting diversity	.019	.045	.019	.420	.675
Personnel	.050	.047	.052	1.061	.289
Location	.117	.046	.115	2.516	.012*
Physical facilities	.132	.064	.109	2.052	.041*
Activity	.152	.036	.191	4.244	.000*
R=0.378	R ² =0.143				
F _(20,758) =0.000	p<0.000				

Dependent variable: SRBS

The findings of Table 6, which examines the effect of the dependent variable, sportive recreation barriers scale, on recreation area participation factors, show that sportive recreation barriers interact significantly with location, facility adequacy and activity. Accordingly, it was determined that sportive recreation barriers explained 14% of the recreation area preference factors.

DISCUSSION AND CONCLUSION

The results of the research conducted to determine the participation preferences and limitations of people who use urban recreational areas show that people who use recreational areas in Ankara province have a high preference for participation in recreational areas and have sports recreation barriers at average levels. In line with the research results, 45% of people use the recreation areas for “sightseeing” and the “social environment” sub-dimension is the biggest barrier to participation in sports recreation. It can be seen that the sub-dimensions “personnel” and “location” have the highest values for preferences for recreation areas. This leads to the conclusion that studies should be conducted to improve the social environment in relation to the barriers to sports recreation, to deploy personnel for the preference processes of recreation areas and to design recreation areas nearby.

While the fact that people in Ankara prefer to spend their leisure time indoors and favor shopping malls over open and green spaces is considered an important factor in the quality of urban life (Oğuz & Çakci, 2010), it is important to draw attention to the factors of open space use that emerged in the current research. Parallel to the finding that there are deficiencies in the spatial structuring of parks in terms of geography (Erkip, 1997), the change in preference factors in terms of location should be considered in the current study. Efforts should be made to improve accessibility to the parks of Ankara Metropolitan Municipality, which have been reported to have unique utilization characteristics (Oğuz, 2000). Another study in this direction shows that people in

Germany value naturalness, diversity, uniqueness and accessibility in recreational areas more than accessibility and service facilities (Boll, Haaren & Ruschkowski, 2014). Looking at the obstacle parameter in the location sub-dimension, it can be said that spatial facilitation should be provided for access to recreational areas. In order for recreational areas to better meet the needs of users, their functionality and demographic characteristics should be improved (Orhan et al., 2021). In this context, it is assessed that the studies should be expanded in cooperation with local governments.

In various cities in our country, participation in outdoor recreation is possible in the form of various activities. In this direction, in the current study, it is determined that the sightseeing factor plays a greater role in accessing the parks in Ankara, while in Istanbul the walking factor is preferred (Hayır-Kanat & Breuste, 2020). Looking at the geographical differences, it can be said that coastal activities are preferred on the east coast of the country (Güleç, 1996). According to the geographical conditions of Ankara, where the study was conducted, it is expected that the interest in parks is higher. Therefore, more planning should be done to improve the recreational participation factors of park users in the urban area and to remove the obstacles to sports recreation areas. Inadequate facilities, which are one of the most important factors affecting participation preferences, are also considered in the current study. Facility limitations were rated as the most important barrier in various studies (Alexandris & Carroll, 1997a; Koçak, 2017). The time factor is emphasised as an important obstacle in various studies (Güler & Çolakoğlu, 2020; Kara & Demirci, 2020; Kara & Yorulmazlar, 2022). Based on the findings, it is assumed that various constraints find a place in people's eyes and that studies should be conducted to completely eliminate the constraints regardless of their nature.

Participants' variables such as gender, education level, marital status and reasons for visiting recreational areas were found to differ significantly between recreational area preference factors and barriers to exercise. In another study similar to the current study, there is a significant and positive relationship between recreational barriers and people living in Ankara, with a significant difference in terms of gender, marital status and age (Kara & Özdedeolu, 2017). On the other hand, preferences for recreational areas are influenced by factors such as age and marital status (Togo & Öztürk, 2020). The results on the effect of marital status on preferences for recreational areas show that married people with children have different needs and preferences than single and childless people. This situation increases the importance of family-friendly features and facilities such as children's playgrounds in the design of recreational areas.

Among the findings of the study, it is a thought-provoking observation that women perceive a significantly higher level of barriers than men in all sub-dimensions with regard to barriers to using sports facilities. The fact that women perceive more barriers than men is a finding that is supported by both the literature and the current study (Alexandris & Carroll, 1997b; Ayhan et al., 2018; Ceylan et al., 2021). The fact that there are gender differences shows that the barriers faced by women in using recreational areas are greater than those faced by men. This can often be attributed to factors such as safety, transportation and social acceptance. The fact that women report a higher level of barriers suggests that recreational spaces need to better address gender-specific needs. It also highlights the need to develop strategies that promote gender equality in the accessibility and suitability of recreational spaces for users' needs.

It was found that there is a statistically significant relationship between PFRA and SRBS, and it was also found that PFRA is a factor in explaining barriers to recreational physical activity. Based on these findings, it is considered that measures should be taken to remove barriers to recreational sport participation by positively influencing individuals' factors for participation in recreational activities. The results of the research, which examined the factors affecting the preferences of users of urban open space parks in Ankara, the capital of Turkey and one of the metropolitan cities, for the areas they use and the barriers they face in sports use, show that different demographic characteristics of the participants differentiate the participation factors and barriers. At the same time, it was found that the barriers and factors to participation have a certain relationship with each other and that the barrier to participation significantly influences the factors, especially for participation. As a result of the findings, various suggestions are made below.

The organization of sporting leisure activities is the first step towards creating a healthy society. People's right to a healthy, happy and successful life can only be achieved by creating and maintaining certain processes. It

can be said that it is necessary to have expert personnel, facilities, equipment and sufficient sports fields and to work harmoniously. Since participation in sports activities also requires special training, this training can be provided by suitable and competent people and public awareness can be raised. Sports activity programs should be introduced and the existing programs should be available throughout the year. Public participation in this direction should be encouraged. Transportation to recreational areas should be diversified and physical facilities should be expanded. There is no doubt that removing or reducing barriers to participation in recreation will increase participation in recreation. This is of course a sign of social development and well-being. In summary, this study provides important insights into the design and management of urban recreation areas. It emphasizes that recreational spaces should be accessible and usable for everyone, while taking into account the needs and preferences of different user groups. In particular, more investment and resources should be allocated to overcome barriers such as the lack of facilities, and issues such as gender equality and family-friendly design should be prioritized.

REFERENCES

- Alexandris K, Carroll B. (1997a). Demographic differences in the perception of constraints on recreational sport participation: Results from a study in Greece, *Leisure Studies*, 16 (2), 107-125.
- Alexandris, K., & Carroll, B. (1997b). An analysis of leisure constraints based on different recreational sport participation levels: Results from a study in Greece. *Leisure Sciences*, 19, 1-15.
- Ayhan, C., Ekinci, N., Yalcin, I., & Yiğit, Ş. (2018). Investigation of constraints that occur during participation in leisure activities by high school students: A sample of turkey. *Education Sciences*, 8(2), 86.
- Boll, T., Haaren, C., & Ruschkowski, E. (2014). The preference and actual use of different types of rural recreation areas by urban dwellers—The Hamburg Case Study. *PLoS ONE*, 9.
- Ceylan, L., Çebi, M., Eliöz, M., & Yamak, B. (2021). Investigation of university students' motivation to participate in physical activity during the pandemic period. *Ondokuz Mayıs University Journal of Education*, 40(2).
- Crawford, D. W., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure sciences*, 9(2), 119-127.
- Crawford, D. W., Jackson, E. L., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences*, 13(4), 309-320.
- Crompton, J. L., Jackson, E. L., & Witt, P. (2005). Integrating benefits to leisure with constraints to leisure. *Constraints to Leisure*, 245-260.
- Dulhamid, H., Isa, M., Mohammed, B., Sazali, M., & Salim, N. (2023). An examination of outdoor recreation participation constraints among rural and urban communities. *Planning Malaysia*. 21(4), 510-524.
- Elveren, A., & Celebi, M. (2024). Examining the factors developing national bicycle policies in promoting bicycle use. *Journal of ROL Sport Sciences*, 5(1), 73–98. <https://doi.org/10.5281/zenodo.10877870>
- Erkip, F. (1997). The distribution of urban public services: the case of parks and recreational services in Ankara. *Cities*, 14, 353-361.
- Godbey, G., Crawford, D. W., XiangYou, S. (2017). Assessing hierarchical leisure constraints theory after two decades. *Journal of Leisure Research*. 42(1), 111-134.
- Güler, Y., & Çolakoğlu, T. (2020). Reviewing sportive recreation activities of workers who worked in Ankara Gimat Automobile Industrial Zone. *European Journal of Social Sciences*. 4(6), 182-190.
- Gülez, S. (1996). Relationship between recreation demand and some natural landscape elements in Turkey: A case study. *Environmental Management*, 20, 113-122.
- Gümüş, H., & Özgül, S. A. (2017). Development of scales for barriers to participation and preference factors in the use of recreation area Rekreasyon alanı kullanımına ilişkin katılım engelleri ve tercih etkenleri ölçeklerinin geliştirilmesi. *Journal of Human Sciences*, 14(1), 865-882.
- Ashraf, S., Ali, S. Z., Khan, T. I., Azam, K., & Afridi, S. A. (2024). Fostering sustainable tourism in Pakistan: Exploring the influence of environmental leadership on employees' green behavior. *Business Strategy & Development*, 7(1), e328.
- Hayır-Kanat, M., & Breuste, J. (2020). Outdoor recreation participation in Istanbul, Turkey: An investigation of frequency, length, travel time and activities. *Sustainability*, 12, 741.
- Jackson, E. L., Crawford, D. W., & Godbey, G. (1993). Negotiation of leisure constraints. *Leisure Sciences*, 15(1), 1-11.
- Kara, F., & Demirci, A. (2010). An assessment of outdoor recreational behaviors and preferences of the residents in Istanbul. *Scientific Research and Essays*, 5, 93-104.
- Kara, F., & Özdedeoglu, B. (2017). Examination of relationship between leisure boredom and leisure constraints. *Sport Sciences*, 12, 24-36.
- Kara, T., & Yorumazlar, M. M. (2022). Adult recreational demands and barriers. *Pakistan Journal of Medical & Health Sciences*, 16(6), 456-456.
- Karademir, M. B. (2023). Examining the recreation awareness and mental well-being levels of university students. *Journal of ROL Sport Sciences*, 879–895. <https://doi.org/10.5281/zenodo.10036800>

- Koçak, F. (2017). Leisure constraints and facilitators: Perspectives from Turkey. *European Journal of Physical Education and Sport Science*, 3(10), 32-47.
- Oğuz, D. (2000). User surveys of Ankara's urban parks. *Landscape and Urban Planning*, 52, 165-171.
- Oğuz, D., & Çakci, I. (2010). Changes in leisure and recreational preferences: A case study of Ankara. *Scientific Research and Essays*, 5, 721-729.
- Orhan, R., Ayan, S., Yapici, H., & Ünver, R. (2021). Evaluation of recreational areas in Ankara (Turkey) in terms of their functionality and demographic characteristics of their users. *Journal of Physical Education, Recreation & Dance*, 92, 27- 34.
- Ozavci, R. (2023). The effect of perceptual stress from a recreational perspective on leisure satisfaction. *Journal of ROL Sport Sciences*, 264–278. <https://doi.org/10.5281/zenodo.8353251>
- Satilmis, S. E., Bilgin, T., & Odemis, M. (2023). Investigation of the effect of traditional street games as a recreational activity on social skills psychological resilience and hope levels of foreign children. *Journal of ROL Sport Sciences*, 4(3), 1080–1097. <https://doi.org/10.5281/zenodo.8346352>
- Şahin, İ., & Kocabulut, Ö. (2014). Sportif rekreasyon aktivitelerine düzenli katılımı engelleyen faktörlerin incelenmesi: Akdeniz Üniversitesi Turizm Fakültesi öğrencileri üzerine bir araştırma. *Journal of Recreation and Tourism Research*, 1(2), 46-67.
- Togo, O., & Öztürk, A. (2020). An Investigation on Preference Factors in Recreation Area Usage of Sport Science Students. *Journal of Electronic Imaging*, 6, 175-185.
- Ünlü, Ç., & Çeviker, A. (2022). Examination of the Social Skills Levels of Students Participating in Recreative Activities. *International Journal on Social and Education Sciences*, 4(4), 529-540.