



Comparison of Participation Constraints in Recreational Physical Activity of the Teachers Working Iğdır and Erzurum Provinces

Mehmet Ali ÖZTÜRK¹ 

¹Karabük University, School of Physical Education and Sports, Turkey
Email: maliozturk2002@yahoo.com



Abstract

The aim of the study is to compare the participation constraint for leisure activities of teachers who working In the Ministry of National Education (MNE). In order to determine the leisure time constraints leisure constraints scales (LCS) were applied to the participants. A total of 413 teachers (258 male and 155 female) working in the Ministry of National Education participated in the study in Iğdır and Erzurum provinces. No statistically significant difference was found at the level of $p < 0,05$ in any of the sub-dimensions as a result of the inter-city comparison of the female participants. While there was a significant difference in the lack of information, facilities and time sub-dimensions of the male participants in the study, $p < 0,05$ was not significant difference in the other sub-dimensions. It is seen that the difference is in favor of the participants from the province of Erzurum. There was no statistically significant difference between the two cities in terms of lack of information, facilities and time ($p < 0,05$) in the subscales, as in male participants. The female teachers who working Iğdır and Erzurum province there was no difference between the scores in the LCS and the mean scores of both groups were close to each other. For the male participants working in Iğdır province, it was determined that the lack of information, facilities and time constraints were more effective in participation of recreational physical activities than male participants working in Erzurum province.

Keywords: Recreation, Physical activity, Leisure constraints, Teachers.

JEL Classification: L83.

Citation | Mehmet Ali ÖZTÜRK (2019). Comparison of Participation Constraints in Recreational Physical Activity of the Teachers Working Iğdır and Erzurum Provinces. Asian Journal of Education and Training, 5(1): 18-24.

History:


Received: 5 September 2018

Revised: 9 October 2018

Accepted: 12 November 2018

Published: 4 December 2018

Licensed: This work is licensed under a [Creative Commons](https://creativecommons.org/licenses/by/3.0/)

[Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/) 

Publisher: Asian Online Journal Publishing Group

Funding: This study received no specific financial support.

Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.

Transparency: The author confirms that the manuscript is an honest, accurate, and transparent account of the study was reported; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.

Ethical: This study follows all ethical practices during writing.

Contents

1. Introduction	19
2. Method	20
3. Results	21
4. Conclusion	23
References	23

1. Introduction

When leisure time studies are examined, it's seen that those related to leisure time constraints are important. However, the literature contributed significantly to the knowledge of leisure time constraints and provided insights into the relationship between leisure time constraints and leisure time experienced (Wang and Wu, 2016). While the first studies on leisure time are more theoretical (Crawford *et al.*, 1991; Samdahl and Jekubovich, 1997) especially in the 2000s, empirical results have been put forward to cover a very large part of the society such as adults, women and disabled people (Wang and Wu, 2016).

Leisure constraints are defined as factors that influence the ability of individuals to choose leisure preferences for specific activities and to limit their capacity to participate in activities (Jackson and Scott, 1999). Crawford and Godbey (1987) used the three-dimensional classification of leisure time constraints (intrapersonal, interpersonal and structural), which were initially applied to address multifaceted relationships with other variables such as preferences and participation. Due to the strong interactions between the dimensions, the fact that the factors were not discriminatory and the low internal consistency brought about many concerns about the use of this tripartite approach (Godbey *et al.*, 2010). For this reason, some scientists (Gilbert and Hudson, 2000; Jun and Kyle, 2011) also benefited from different constraints within a certain activity and environment.

Crawford and Godbey (1987) first mentioned three possible constraints, namely intrapersonal, interpersonal and structural, for participation to leisure constraints of families. Examples include intrapersonal situations such as anxiety, depression, religiosity, stress and perceived self-skill. Interpersonal constraints can be defined as the result of interpersonal interaction among intrapersonal. Structural constraints can include climate, season, financial resources, workload and so on. For these three identified constraints, then the category of hierarchically arranged leisure constraints was developed (Wang and Wu, 2016).

Raymore *et al.* (1993), Crawford and Godbey (1987) and Crawford *et al.* (1991) mentioned three intrapersonal, interpersonal and structural leisure time constraints, each of the sub-headings have been mentioned in a comprehensive time constraints criterion. Intrapersonal constraints: faith, introversion, shy, skill, discomfort and living with the family; interpersonal constraints; information about activities, money status, obligations, capabilities, time, transportation and distance; structural constraints: suitability, availability, financial situation, non-crowded places, time and other elements (Wang and Wu, 2016).

Studies focusing on leisure constraints have been revised with new developments with the development of various conceptual models (Jackson, 2005). One of the most noteworthy of these models is the hierarchical model (Figure 1) of leisure time constraints proposed by Crawford *et al.* (1991). According to the first phase of this model, potential participants in the decision-making process for their first participation in leisure activities face a number of constraints. The second stage shows how participants who participate in recreational activities and who have experience in participation in these activities progress to a higher level of entertainment (Bryan, 1977; Stebbins, 1992). In this model, many researchers test whether three-level constraints create different categories or structures, as well as many researches that directly or indirectly describe the types of constraints to be connected to three levels. For example; Raymore *et al.* (1993) demonstrated the validity of the three-dimensional structure using confirmatory factor analysis. Their results provided preliminary evidence supporting the existence of three subgroups.

Crawford *et al.* (1991) estimate that social classes, which are generally shaped by income and education, have a strong influence on people's perceptions and experiences about constraints, which ultimately affect their participation in leisure activities. Although not directly or indirectly present in this proposition, this study does not include any empirical evidence, but many studies addressing relationships between demographic variables (such as gender, income, education, ethnic background) and perceived constraints (Jackson, 2005).

McCarville and Smale (1993) examined perceived constraints in five main areas that affect participation in leisure activities (physical activity and exercise, arts and entertainment, hobbies, social activities and home entertainment). The findings suggest that the constraints do not show a balanced distribution within the total population. People in the low-income group exhibit more constraints than those who are wealthy (perceived age compliance, health, difficulties in communication language, costs, lack of companion, information, accessibility / compliance).

Alexandris and Carroll (1997b) conclude that psychological, interest, and negative past experiences, perceived absence, lack of information, accessibility / financial constraints are more common among the less educated individuals. These findings obtained from Raymore *et al.* (1994) in accordance with the results of the study. In their study, they examined the relationships between socio-economic status (perceived household income and education levels of parents) and perceived constraints and found that socio-economic status was in an inverse relationship with interpersonal constraints. They also concluded that there was no significant relationship between the other two types of constraints and socio-economic status.

To summarize, the distribution of constraints in socio-economic steps in current studies, Crawford *et al.* (1991) the evidence supports the existence of a social privilege hierarchy in general to experience leisure constraints. Furthermore, a common finding from the present literature indicates that women experience more constraints on leisure than men, especially in terms of interpersonal constraints (Culp, 1998; Henderson and Ainsworth, 2000; Shaw and Henderson, 2005). We also believe that gender equality issues support the hierarchical social concession proposition indirectly (Crawford *et al.*, 1991).

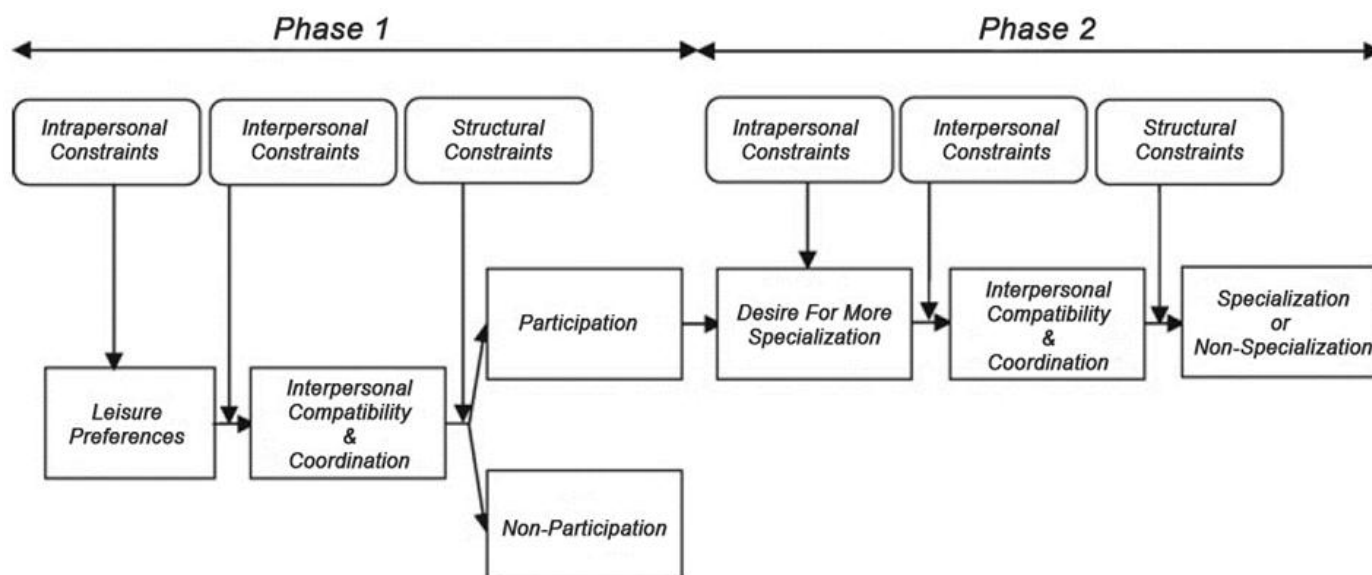


Figure-1. Hierarchical model of leisure constraints (Lyu and Oh, 2014).

Source: The source is already given under Figure (Lyu and Oh, 2014).

2. Method

2.1. Model of Research

The research was carried out to compare the factors that constraints the participation of teachers in Iğdır and Erzurum provinces in their leisure activities. Screening model was used in the research. The screening model is known as a research approach that aims to describe a situation that has existed in the past or is still present. The subject, object, event, subject to the study is tried to be defined in its own conditions and as it is Karasar (2000).

2.2. Sampling

The population of the study was composed of the secondary schools and high schools of the Ministry of National Education (MNE) in the provinces of Iğdır and Erzurum, and the sample of the 13 schools included in the study. A total of 413 people, 258 male (62.5%) and 155 female (37.5%), participated in the study.

2.3. Data Collection Tool

In the study; The Leisure Constraint Questionnaire was (LCQ) used to determine and compare the constraints to participation in the leisure activities of teachers. The Turkish validity and reliability study of the scale was performed by Öztürk *et al.* (2017). The original of the LCQ was developed by Alexandris and Carroll (1997b) by applying 153 people in Larissa, Greece. After the factor analysis, it was determined that the scale was composed of 7 sub-dimensions (psychological, knowledge, facilities, accessibility, interest, partners and time) and the contribution of these factors to the total variance was 61%.

As a result of the internal consistency analysis applied to the original scale, Cronbach's Alpha coefficient for the whole scale and for each sub-dimension was between 0.59 and 0.81 and the scale was accepted as reliable for usability in the study (Alexandris and Carroll, 1997a). In addition, as a result of the internal consistency analysis performed by Öztürk *et al.* (2017) Cronbach's Alpha value for the whole scale was: 0,876, Spearman-Brown Correlation value: 0,754 and Guttman Split Half Correlation value: 0,754. The scale consists of 29 items. The scale was scored as 5-point likert (1: I completely disagree, 5: completely agree). For this reason, while interpreting the research findings; the higher the scores obtained from the scale, the participants were evaluated as a negative result.

2.4. Analysis of Data

Demographic characteristics of the participants were determined by descriptive statistics. The usability of the LCQ in our study was measured by internal consistency analysis. Internal consistency analysis reliability test Cronbach's Alpha value was determined as 0.874 for all the scale and for sub-dimensions knowledge: 0,698, psychological: 0,704, time: 0,716, interest: 0,738, partners: 0,753, facility: 0,774 and accessibility: 0,779. These values were found to be acceptable for usability of the scale in our research. Whether the scores of the participants in the LCQ differed for seven sub-dimensions of gender and marital status between the two cities were first measured by One Way MANOVA. The MANOVA test was found level of $p < 0.05$ as a result of the covariance equation and it was determined that the covariances of the groups were not equally distributed in sex and marital situations. (Table 1). For this reason, whether or not the scores differed significantly by applying the filtering technique (First, only male participants were filtered and compared to the city. Therefore, the difference between the two cities gave us only findings about male participants. The same procedure was applied to female participants. For marital status, statistics were applied with gender measurement technique.) for gender and marital status were measured by independent sample t-test due to the normal distribution of the data. Normality distributions were found by applying Z-Test. The Z-Test is a test used for normal distribution using the kurtosis and skewness values. The Z value is obtained by dividing the kurtosis or skewness data by its own standard errors (Kim, 2013). In the studies where the significance of $p < 0.05$ was considered, the absolute value of the Z score was between 1.96 and -1.96, indicating that the data were normally distributed (Ghasemi and Zahediasl, 2012). The two-way MANOVA test was used to determine whether there were any differences in the sub-dimensions between the two cities. The significance level was accepted as $p < 0.05$ and the confidence interval was 95%.

Table-1. Covariance Matrix Equation Test

Independent Variabile	Df1	Df2	F	P
Gender	84	243750,790	2,436	0,000
Marital Status	84	319888,139	3,647	0,000

Source: This table is result of Covariance Matrix Test of our studies.

3. Results

Table 2 gives demographic information about the participants in the study. 258 male participants (62.5%, Iğdır: N = 116, Erzurum: N = 142) from Erzurum and Iğdır, and 155 female participants (37.5%, Iğdır: N = 66, Erzurum: N = 89). A total of 413 teachers participated. 56.4% (N = 233) of the participants were married and 43.6% (N = 180) were single. In terms of working year; 186 people (45%, Iğdır: N = 82, Erzurum: N = 104) between 1-5 years, 100 people (24.2%, Iğdır: N = 40, Erzurum: N = 60) between 6-10 years, 56 people (13.6%, Iğdır: N = 27, Erzurum: N = 29) between 11-15 years and 71 people (17.2%, Iğdır: N = 33, Erzurum: N = 38) 16 years and It is observed that they have working year experience.

Table 3 shows the scores of women and men by province. According to this; Although the female participants from the province of Erzurum have a lower score than the women who participated in the study from Iğdır province, this score is not statistically significant. In terms of male participants, the scores of the participants from Erzurum were lower in all sub-dimensions. According to this result, the knowledge ($t=-3,492$; $p = 0,001$), facilities ($t=-2,306$; $p=0,022$) and time ($t=-4,078$; $p=0,000$) sub-dimensions $p < 0.05$ level of significant difference has created. In terms of marital status (Table 4); It was determined that the married and single participants who participated in the study from the province of Erzurum received lower scores than the married and single participants from Iğdır province. However, the difference in points between the groups did not constitute any significant difference in any sub-dimension. The comparison of the scores of the participants in terms of the working years was done by MONOVA test in Table 5. As a result of the analysis, it was determined that there were no differences between the sub-dimension dependent variables in the province, the working year and the working year *province.

Table-2. Demographic Characteristics of Participants

Gender			
	Province	N	%
Male	Iğdır	116	45
	Erzurum	142	55
Female	Iğdır	66	42,05
	Erzurum	89	57,05
Working Year			
	Province	N	%
1-5 Years	Iğdır	82	44,01
	Erzurum	104	59,09
6-10 Years	Iğdır	40	40
	Erzurum	60	60
11-15 Years	Iğdır	27	48,02
	Erzurum	29	51,08
16 Years and over	Iğdır	33	46,05
	Erzurum	38	53,05
Martial Status			
	Province	N	%
Married	Iğdır	97	41,06
	Erzurum	136	58,04
Single	Iğdır	85	47,2
	Erzurum	95	52,8

Source: This table is result of our studies.

Table-3. Independent sample t-test comparing male and female participants' scores between provinces

	Gender	Province	N	Mean	SS(±)	t	p
Psychological	Female	ER	66	3,684	1,465	,770	,442
		IĞD	89	3,509	1,346		
	Male	ER	116	3,419	,141	-1,795	,074
		IĞD	142	3,733	,108		
Knowledge	Female	ER	66	2,433	1,126	-1,818	,071
		IĞD	89	2,788	1,257		
	Male	ER	116	2,556	,115	-3,492	,001*
		IĞD	142	3,094	,102		
Facilities	Female	ER	66	3,454	1,713	-,589	,557
		IĞD	89	3,604	1,451		
	Male	ER	116	3,194	,128	-2,306	,022*
		IĞD	142	3,570	,103		
Accessibility	Female	ER	66	3,200	1,391	-1,069	,287
		IĞD	89	3,449	1,461		
	Male	ER	116	3,122	,128	-1,953	,052
		IĞD	142	3,459	,114		
Interest	Female	ER	66	2,280	1,689	-,425	,672
		IĞD	89	2,387	1,449		

	Male	ER	116	2,633	,155	-,727	,468
		IĞD	142	2,778	,127		
Partners	Kadın	ER	66	3,237	1,551	-1,051	,295
		IĞD	89	3,516	1,697		
	Erkek	ER	116	3,371	,124	-1,443	,128
		IĞD	142	3,568	,120		
Time	Female	ER	66	2,742	1,132	-1,372	,172
		IĞD	89	3,005	1,216		
	Male	ER	116	2,484	,092	-4,078	,000*
		IĞD	142	3,068	,105		

* p<0,05, ER= Erzurum, IĞD= Iğdır

Table-4. Independent sample t-test comparing the scores of married and single participants among provinces

	Gender	Province	N	Mean	SS(±)	t	p
Psychological	Married	IĞD	97	3,273	1,357	-1,773	,077
		ER	136	3,511	1,234		
	Single	IĞD	85	3,598	1,484	-,001	,999
		ER	95	3,598	1,340		
Knowledge	Married	IĞD	97	2,830	1,207	-1,275	,192
		ER	136	3,014	1,164		
	Single	IĞD	85	2,604	1,197	-1,666	,097
		ER	95	2,922	1,342		
Facilities	Married	IĞD	97	3,508	1,580	-1,057	,245
		ER	136	3,755	1,325		
	Single	IĞD	85	3,687	1,577	-,479	,632
		ER	95	3,581	1,389		
Accessibility	Married	IĞD	97	3,433	1,340	-,643	,524
		ER	136	3,516	1,399		
	Single	IĞD	85	3,285	1,431	-,392	,635
		ER	95	3,368	1,408		
Interest	Married	IĞD	97	2,510	1,636	-,804	,422
		ER	136	2,680	1,554		
	Single	IĞD	85	2,500	1,740	-,223	,824
		ER	95	2,552	1,428		
Partners	Married	IĞD	97	3,494	1,508	-1,330	,115
		ER	136	3,720	1,504		
	Single	IĞD	85	2,992	1,308	-1,434	,153
		ER	95	3,301	1,559		
Time	Married	IĞD	97	2,876	,982	-,362	,688
		ER	136	2,954	1,199		
	Single	IĞD	85	2,917	1,111	-1,133	,228
		ER	95	3,173	1,284		

* p<0,05, ER= Erzurum, IĞD= Iğdır

Table-5. The MANOVA test results of the participants were compared between the provinces according to the working years.

	Resource	Mean Square	df	F	p
Psychological	W. Years	2,296	3	1,896	,107
	Prv	2,651	1	1,472	,226
	W. Years * Prv	,275	3	,153	,928
Knowledge	W. Years	,118	3	,078	,972
	Prv	2,387	1	1,388	,268
	W. Years * Prv	,710	3	,470	,704
Facilities	W. Years	2,091	3	1,925	,095
	Prv	1,455	1	,918	,387
	W. Years * Prv	,1836	3	,864	,460
Accessibility	W. Years	2,037	3	1,043	,373
	Prv	,735	1	,497	,685
	W. Years * Prv	,708	3	,363	,780
Interest	W. Years	1,589	3	1,443	,230
	Prv	1,430	1	,1,115	,320
	W. Years * Prv	1,766	3	1,514	,214
Partners	W. Years	1,251	3	,665	,548
	Prv	1,684	1	1,143	,188
	W. Years * Prv	,824	3	,375	,771
Time	W. Years	1,042	3	,883	,486
	Prv	2,184	1	1,784	,158
	W. Years * Prv	,231	3	,173	,915

W. Years = 1-5 years, 6-10 years, 11-15 years, 16 years and over, Prv = Province

4. Conclusion

Studies on recreation and leisure constraints have been increasing rapidly in recent years (Kim *et al.*, 2015). Constraints were defined as the barriers to not participating in the activities in the first studies. In later studies, barriers were evaluated as constraints, and studies were carried out to deal with those constraints (Alexandris *et al.*, 2007). Many theoretical and empirical research was based on factors such as budget, time, facilities and psychological status (Crawford and Godbey, 1987; Crompton and Kim, 2004; Hung and Petrick, 2010). The scale used in our study measures the extent to which these factors are effective in the constraints on participation in leisure time activities. At this point, the findings of this part of the research are discussed and the results are presented.

In Erzurum and Iğdır provinces, the main purpose of this study is to compare the participation constraints of secondary school and high school teachers in leisure activities. A total of 413 people from both provinces participated in the study. Those who participated in the study from Erzurum (N=231) took more places than those from Iğdır province. Considering the fact that Erzurum has much more population than Iğdır and the number of students and teachers in schools is high, this result can be considered as normal. In addition, men and 258 women and 155 people contributed to the study. When the participants were evaluated in terms of the working year; It was observed that most of the groups were teachers with working experience between 186 and 1-5 years, and between 100 and 6-10 years. In addition, 71 teachers with 16 years and more and 56 teachers with 11-15 years experience were included in the study. Erzurum and Iğdır are located in the eastern part of our country. In particular, it is known that most of the teachers perform the compulsory eastern tasks during years they were first appointed. This situation can be said to be the main reason for young teachers to be more involved in the research. It is thought that most of the teachers with long term duty are registered to the population in the city where they are located. 56.4% of the participants were married and 43.6% were single participants.

In all sub-dimensions (psychological, knowledge, facilities, accessibility, interest, partners and time), female Participants in the province of Erzurum has lower scores than the female participants in the province of Iğdır was determined. However, these differences did not make any statistically significant difference. According to this result; The fact that women who participated in the study from Iğdır could not participate in leisure time activities compared to the women who participated in the study from Erzurum province can be interpreted that all factors are more effective. When evaluated in terms of male participants; The scores of the participants from the Erzurum province were lower in all sub-dimensions. However, this difference in score, knowledge ($t = -3,492$; $p = 0,001$), facilities ($t=-2,306$; $p=0,022$) and time ($t=-4,078$; $p=0,000$) sub-dimensions there was a significant difference the level of $p<0.05$. Ayhan *et al.* (2018) found a significant difference between women and men in favor of women in all sub-dimensions according to the results of the study, which examined the barriers of participation of recreational students in recreational activities. They concluded that women were more involved in such activities than men. Barkın *et al.* (2017) found differences in faculties and high school students sub-dimensions of facilities and side causes in their studies comparing the constraints on participation in recreational activities. It was determined that the married and single participants who participated in the study from the province of Erzurum received lower scores than the married and single participants who participated in the study from Iğdır but these differences did not make any significant difference. As a result of comparison of the scores of the participants in terms of the working year, it was determined that the dependent variables did not make any difference between the province, the working year and the working year *province.

In our study, the factors of non-participants of of leisure time activities in Iğdır province were lower in all sub-dimensions than in Erzurum. Although the scores of the participants from Erzurum province are lower in all sub-dimensions; The main factors that stand out can say as knowlegde, facilities and time. In other words, these three factors have been much more effective in their inability to participate in the activities of teachers working in Iğdır. In a study conducted on university students; It was determined that the most constraints on students' participation in activities were caused by structural reasons (Richard *et al.*, 2011). In another study in which teachers' leisure time constraints were determined, it was found that lack of time and knowledge was the most important factor in the restriction of participation in activities (Üstün *et al.*, 2017).

The results of the research revealed that the participants in Erzurum province have less disability to participate in leisure activities than the participants of Iğdır province. The reasons such as the fact that Erzurum has much more social and cultural opportunities compared to Iğdır and at the same time it is much larger in terms of population may have caused this result to be in the research. Teachers' participation in leisure activities depends on many factors such as their budgets, their time, finding more suitable activity areas in terms of accessibility, and the condition of the facilities. It is expected that these opportunities will be provided to participants in Erzurum compared to Iğdır.

References

- Alexandris, K. and B. Carroll, 1997a. An analysis of leisure constraints based on different recreational sport participation levels: Results from a study in Greece. *Leisure Sciences*, 19(1): 1-15. Available at: <https://doi.org/10.1080/01490409709512236w>.
- Alexandris, K. and B. Carroll, 1997b. Demographic differences in the perception of constraints on recreational sport participation: Results from a study in Greece. *Leisure Studies*, 16(2): 107-125. Available at: <https://doi.org/10.1080/026143697375449>.
- Alexandris, K., C. Kouthouris and G. Girgolas, 2007. Investigating the relationships among motivation, negotiation, and alpine skiing participation. *Journal of Leisure Research*, 39(4): 648-667. Available at: <https://doi.org/10.1080/00222216.2007.11950126>.
- Ayhan, C., N. Ekinçi, İ. Yalçın and Ş. Yiğit, 2018. Investigation of constraints that occur during participation in leisure activities by high school students: A sample of Turkey. *Education Sciences*, 8(2): 86. Available at: <https://doi.org/10.3390/educsci8020086>.
- Barkın, E., A. Ağılonü and Ö. M.A., 2017. Examination of constraints to participation in recreational physical activities of university students (Muğla Province Case). University of Muğla, Institute of Social Sciences, Master's Thesis.
- Bryan, H., 1977. Leisure value systems and recreational specialization: The case of trout fishermen. *Journal of Leisure Research*, 9(3): 174-187. Available at: <https://doi.org/10.1080/00222216.1977.11970328>.
- Crawford, D.W. and G. Godbey, 1987. Reconceptualizing barriers to family leisure. *Leisure Sciences*, 9(2): 119-127. Available at: <https://doi.org/10.1080/01490408709512151>.
- Crawford, D.W., E.L. Jackson and G. Godbey, 1991. A hierarchical model of leisure constraints. *Leisure Sciences*, 13(4): 309-320. Available at: <https://doi.org/10.1080/01490409109513147>.

- Crompton, J.L. and S.-S. Kim, 2004. Temporal changes in perceived constraints to visiting state parks. *Journal of Leisure Research*, 36(2): 160-182. Available at: <https://doi.org/10.1080/00222216.2004.11950018>.
- Culp, R.H., 1998. Adolescent girls and outdoor recreation: A case study examining constraints and effective programming. *Journal of Leisure Research*, 30(3): 356-379. Available at: <https://doi.org/10.1080/00222216.1998.11949838>.
- Ghasemi, A. and S. Zahediasl, 2012. Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2): 486-489. Available at: <https://doi.org/10.5812/ijem.3505>.
- Gilbert, D. and S. Hudson, 2000. Tourism demand constraints: A skiing participation. *Annals of Tourism Research*, 27(4): 906-925. Available at: [https://doi.org/10.1016/s0160-7383\(99\)00110-3](https://doi.org/10.1016/s0160-7383(99)00110-3).
- Godbey, G., D.W. Crawford and X.S. Shen, 2010. Assessing hierarchical leisure constraints theory after two decades. *Journal of Leisure Research*, 42(1): 111-134. Available at: <https://doi.org/10.1080/00222216.2010.11950197>.
- Henderson, K.A. and B.E. Ainsworth, 2000. Enablers and constraints to walking for older African American and American Indian women: The cultural activity participation study. *Research Quarterly for Exercise and Sport*, 71(4): 313-321. Available at: <https://doi.org/10.1080/02701367.2000.10608914>.
- Hung, K. and J.F. Petrick, 2010. Developing a measurement scale for constraints to cruising. *Annals of Tourism Research*, 37(1): 206-228. Available at: <https://doi.org/10.1016/j.annals.2009.09.002>.
- Jackson, E.L., 2005. Leisure constraints research: Overview of a developing theme in leisure studies. In E. L. Jackson (Ed.), *Constraints to leisure*. State College, PA: Venture. pp: 3-19.
- Jackson, E.L. and D. Scott, 1999. Constraints to leisure. In E. L. Jackson & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century*. State College, PA: Venture. pp: 299-321.
- Jun, J. and G.T. Kyle, 2011. The effect of identity conflict/facilitation on the experience of constraints to leisure and constraint negotiation. *Journal of Leisure Research*, 43(2): 176-204. Available at: <https://doi.org/10.1080/00222216.2011.11950232>.
- Karasar, N., 2000. *Scientific research method*. 10th Edn., Ankara: Editorial Nobel.
- Kim, H.-Y., 2013. Statistical notes for clinical researchers: Assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, 38(1): 52-54. Available at: <https://doi.org/10.5395/rde.2013.38.1.52>.
- Kim, M.K., D. Lee, S.-K. Kim and M. Kim, 2015. Leisure constraints affecting experienced martial arts participants. *Asia Pacific Journal of Tourism Research*, 20(9): 1063-1079. Available at: <https://doi.org/10.1080/10941665.2014.952240>.
- Lyu, S.O. and C.-O. Oh, 2014. Recreationists' constraints negotiation process for continual leisure engagement. *Leisure Sciences*, 36(5): 479-497. Available at: <https://doi.org/10.1080/01490400.2014.920702>.
- McCarville, R. and B.J. Smale, 1993. Perceived constraints to leisure participation within five activity domains. *Journal of Park and Recreation Administration*, 11(2): 40-59.
- Öztürk, M.A., A. Yılmaz and E. Sarıkol, 2017. Turkish validity and reliability study of the leisure constraint scale. *International Scientific Researches Congress on Humanities and Social Sciences*, 24.
- Raymore, L., G. Godbey, D. Crawford and A. Von Eye, 1993. Nature and process of leisure constraints: An empirical test. *Leisure Sciences*, 15(2): 99-113.
- Raymore, L.A., G.C. Godbey and D.W. Crawford, 1994. Self-esteem, gender, and socioeconomic status: Their relation to perceptions of constraint on leisure among adolescents. *Journal of Leisure Research*, 26(2): 99-118. Available at: <https://doi.org/10.1080/00222216.1994.11969948>.
- Richard, L., I. Gage and B. Thapa, 2011. Motivations and limitations of volunteers among university students: Analysis of volunteer function inventory and models of free time restrictions. *Nonprofit and Voluntary Sector Quarterly*, 41(3): 405-430.
- Samdahl, D.M. and N.J. Jekubovich, 1997. A critique of leisure constraints: Comparative analyses and understandings. *Journal of Leisure Research*, 29(4): 430-452. Available at: <https://doi.org/10.1080/00222216.1997.11949807>.
- Shaw, S.M. and K. Henderson, 2005. Gender analysis and leisure constraints: An uneasy Alliance. E. L. Jackson (Ed.), *Constraints to leisure*. State College, PA: Venture. pp: 23-34.
- Stebbins, R.A., 1992. *Amateur, professional, and serious leisure*. Montreal, Canada: McGill-Queen's University Press.
- Üstün, U.D., A. Ersoy and H. Bisgin, 2017. An investigation on perceived constraints of teachers in relation to leisure activities. *Online Submission Turkish Journal of Sport and Exercise*, 19(2): 157-161. Available at: <https://doi.org/10.15314/tsed.301569>.
- Wang, T.W. and C.T. Wu, 2016. Identifying leisure constraints among college students – application of a fuzzy approach. *International Journal of Organizational Innovation*, 8(4): 177-187.