## JOURNAL OF TOURISM AND GASTRONOMY STUDIES

ISSN: 2147 - 8775

Journal homepage: www.jotags.org



# Leisure Constraints among Turkish Millennials and Generation Z



<sup>a</sup> Sakarya University of Applied Sciences, Faculty of Tourism, Department of Recreation Management, Sakarya/Turkey

#### **Article History**

#### Abstract

Received: 29.04.2022 Accepted: 14.06.2022

## Keywords

Leisure constraints Millennials Generation Z Turkey Leisure activity participation Leisure constraints are the barriers to participating in leisure activities. Leisure constraints are categorized as intrapersonal, interpersonal, and structural. Previous literature showed that women experience leisure constraints more than men. The purpose of this research is to analyze differences between men and women aged 15 and 39 with regard to three dimensions of leisure constraints; intrapersonal, interpersonal, and structural and participation in physical and social leisure activities. Results showed that women experience interpersonal constraints more than men, while men experience intrapersonal constraints more than women. With regards to activity participation results supported that men participate in both physical and social activities more than women. Therefore, social activity programs could be developed, recreational facilities should offer some discounts and promotions to attract women. The collection of the data is limited to certain areas. Therefore, future studies can increase representativeness by focusing on a wider area.

#### Article Type

Research Article

## INTRODUCTION

Participation in leisure activities is proven to provide psychological, mental, and physiological benefits (Fancourt, Aughterson, Finn, Walker, & Steptoe, 2021). However, participation in leisure activities may not be convenient for some people who experience constraints. Leisure constraints are the obstacles that one experiences to participating in leisure activities; these obstacles can be intrapersonal, interpersonal, and structural (Crawford &Godbey, 1987, 120). According to Crawford and Godbey (1987), while intrapersonal constraints are individual barriers to participating in leisure activity, interpersonal constraints are barriers resulting from relationships. On the other hand, structural constraints are physical barriers, such as a lack of facilities or equipment.

Many researchers investigated differences in leisure constraints between men and women from various ethnic and cultural backgrounds and the majority of these studies have revealed that women experience more constraints than men. (Andrade et al., 2019; Cetinkaya, Yıldız, & Özçelik, 2018; Mowen, Payne, & Scott, 2005; Koca, Henderson, Asci, & Bulgu, 2009). Interestingly women living in both Western countries and Non-Western countries experience similar constraints (Coble, Selin, and Erickson, 2003; Fedler & Ditton, 2001). Coble, Selin, and Erickson (2003) have studied leisure constraints experienced by Caucasians in solo hiking. Results showed that men and women showed differences in experiencing fears in different ways and degrees. While women use avoidance and defensive behaviors for negotiating, men are less constrained by fear. On the contrary, Turkish men feel more intimidated to visit national parks than Turkish women (Cetinkaya, Yıldız, & Özçelik, 2018). It is unusual for a Turkish woman to visit a national park alone; therefore, it is not surprising that they feel no fear. On the other hand, the obligation to protect women that Turkish men feel may be the root cause of their fear to visit parks.

No matter whether they live in a Western or non-Western country, women always feel that they have more obligations towards their families than men as family obligations create some obstacles for women to participate in leisure activities (Andrade et al., 2019; Livengood & Stodolska, 2004; Kara & Özdeoğlu, 2017). For example, while the most common constraints among Brazilian workers were family commitments, long working hours, and housework, women scored much higher than men in all family commitments and housework than men (Andrade et al., 2019). The situation for women living in Western countries is relatively better. In Australia, although women experience some constraints due to family commitments, the ones who receive higher support from their spouses can negotiate the leisure constraints and participate in leisure activities (Brown, 2001). Women also have a harder time negotiating constraints than men. For example, in the USA, the number of women who had to drop out of a fishing activity due to constraints is more than men (Fedler & Ditton, 2001). Research shows American women perceive family responsibilities as constraints to visiting national parks as opposed to men who do not experience such an obstacle (Mowen, Payne, & Scott, 2005).

On top of family commitments, women living in developing countries also experience some financial difficulties to participate in leisure activities, as most of them do not have financial freedom (Koca, Henderson, Asci, & Bulgu, 2009; Koca, Henderson, Asci, & Bulgu, 2009). In Muslim countries, women also experience strong societal pressure and the constraining effect of their religious belief (Albayrak, Caber, & Crawford, 2007; Demir, 2005). Religion has a restrictive impact on leisure activities among Muslim people living in their home countries, as well as among immigrants. Muslim immigrants also experience societal pressure; however, the root of the pressure is different. The discrimination that Muslim people experience in the USA, such as unpleasant looks has led to a decrease in the

#### Coşkun, G.

willingness to participate in leisure activities (Livengood & Stodolska, 2004). Because it is easier to spot a Muslim woman by her dressing style, there is a higher chance that a woman experiences this type of discriminative behavior compared to a man (Livengood & Stodolska, 2004). Still, in their home country, Muslim women experience much more pressure regarding family commitments, their dressing style, and spending time with the opposite sex (Koca, Henderson, Asci, & Bulgu, 2009; Albayrak, Caber, & Crawford, 2007; Demir, 2005)

Although Turkey is a secular Muslim country, the societal pressure that Turkish women experience is not much different from women living in other Muslim countries. No matter what social class they belong to, Turkish women are constrained by their religious beliefs and the male figures in their lives (Koca, Henderson, Asci, & Bulgu, 2009). The constraints that Turkish women experience are not limited to societal pressure. A study among residents in Ankara, the capital city, showed that women experience some specific constraints such as access lack of partners, and lack of interest (Kara & Özdeoğlu, 2017). Even though Ankara is a big city with easy access to recreational facilities compared to other regions of Turkey, women still experience such constraints.

In Turkish society, unlike girls who are forced to stay inside, boys are encouraged to spend their leisure time outside (Saygan & Uludağlı, 2021). For this reason, the presence of all three types of constraints is much stronger among female high school students than among male students in Turkey (Ayhan, Ekinci, Yalçın, & Yiğit, 2018). Even if the college provides an environment for women to gain self-confidence and independence, female students still experience pressure from their families and society in their college years (Saygan & Uludağlı, 2021). Demir (2003) revealed that female students engage in physical activity less than male students. Female students experience intrapersonal and interpersonal constraints that inhibit their participation in leisure activities such as; responsibilities, satisfaction, expectation from life, perception of opportunities, social politics, ethnicity, and status of women in society (Albayrak, Caber, & Crawford, 2007; Demir, 2005). Women living in other developing countries experience similar constraints. For example, in Ghana, female students perceive intrapersonal constraints such as lack of knowledge and skill, fear of physical injury, and health-related problems as obstacles to participating in leisure activities, while male students do not have such concerns (Adam, Hiamey, & Afenyo, 2015). The fact that collegelevel students experience such intrapersonal constraints supports the idea that females are not raised to be independent in the developing world. However, the research on leisure constraints in these countries is still limited. More research in non-Western developing countries is needed to understand the nature of constraints that women experience in the non-Western world.

The literature on leisure constraints also includes studies focusing on the relationship between some demographic variables and constraints. While college students experience structural constraints, such as limited access to recreational facilities and income level (Akyol & Akkaşoğlu, 2020; Gurbuz & Henderson, 2014), high school students located in the Eastern Regions experience a higher level of intrapersonal, interpersonal, and structural constraints than their Western counterparts (Ayhan et al., 2018). With regards to structural constraints such as accessibility, Eastern Region is not the only region that has problems, as there are other regions in Turkey, especially rural areas. A study in the North part of Turkey showed that college students experience structural constraints such as lack of facilities, transportation, financial troubles, and lack of time (Akyol & Akkaşoğlu, 2020).

#### Coşkun, G.

The purpose of this research is to analyze differences between men and women aged 15 and 39 with regard to three dimensions of leisure constraints; intrapersonal, interpersonal, and structural and participation in physical and social leisure activities.

H1: Women experience higher intrapersonal constraints than men.

H2: Women experience higher interpersonal constraints than men.

H3: Women experience higher structural constraints than men.

H4: Men participate in physical activities in their leisure time more than women.

H5: Women participate in social activities in their leisure time more than men.

## Method

## **Research Model**

Quantitative data collection methods were followed for this current research. A survey design approach was used for the study. Survey design is the most appropriate approach for this study, as it allows researchers to reach a high number of cases (Tabachnick & Fidell, 2001).

#### **Participants**

A survey was conducted among young 424 people between the age of 15 and 39 (millennials and generation Z). 6 cases were deleted due to missing data and normality issues. The analyses were conducted on 418 cases. 54% of the sample was male, and 46% were female. The average age of the respondents was 23.4, with a standard deviation of 5.8, and the median was 22.66.5% of the respondents were born after 1996 (generation Z) and the remaining 33.6% were composed of millennials who were born between 1980 and 1996. 87% of the respondents were not married. 12% reported having less than a high school education and 65% having a high school degree, and the college graduates were 28% of the sample (Table 1).

Table 1. Demographics

	N(418)	%
Gender		
Female	191	45.7
Male	227	54.3
Relationship Status		
Single	365	87.3
Married	40	9.6
Missing	13	3.1
Age		
15-18	20	4.8
19-23	258	61.7
24-34	112	26.8
35-39	28	6.7
Highest Level of Education		
Less than high school	12	2.9
High school	271	64.8

#### Table 1. Demographics (Cont.)

College Graduate	117	27.9
Graduate Degree	12	2.8
Missing	6	1.6
Weekly Working Hours		
0	249	59.6
Under 10 hours	41	9.8
11-20 hours	17	4.1
21-40 hours	34	8.1
41-60 hours	56	13.4
Over 60 hours	14	3.3

## **Data Collection Tools**

The survey instrument consists of three sections. The first section was composed of screening questions such as "Do you engage in any physical activity in your leisure time outside of your home?", "During a typical 7-day period (a week), in your leisure time, how often do you engage in any physical activity?", and "How many hours on average do you spend on the physical activity each time?". The second section lists the questions regarding leisure constraints, measured with the scale adapted from Alexandris and Carroll (1997), Hubbard and Mannell (2001), and White (2008). In total 13 questions were asked, five of which were about intrapersonal, four about interpersonal, and four about structural constraints. Leisure constraints were measured on a seven-point scale (1=strongly disagree, 7=strongly agree). The last section sought demographic information from the respondents such as gender, age, occupation, and education.

#### **Data Collection Process**

The data were collected through the students of the Faculty of Tourism in January 2022. Each student has been asked to fill in the questionnaire and also distribute it to their friends between the age of 15 to 39. The students have collected the data as a class assignment. The data collection process lasted about one month. Convenience sampling was used. The ethics committee permission document required for the collection of data used in this study was obtained from Sakarya University of Applied Sciences Ethics Committee with the date 29/04/2022 and the decision/number of 45063.

#### **Data Analyses**

SPSS version 21 was used to analyze the data. IBM SPSS Statistics 22,0 software was used to analyze the data. Reliability analyses and factor analyses were conducted on the leisure constraints scale. A T-Test was conducted to analyze whether there is a difference among the dimensions of the attitude variable depending on gender.

#### Results

Exploratory Factor analyses were conducted to measure the dimensions of leisure constraints and to test the reliability of the attitude scale which is composed of 13 items. Exploratory Factor analyses were conducted with Principal Component Analysis and Varimax with Kaiser Normalization. 1 item: 'I am afraid of getting hurt by other people' was excluded from the analyses due to low loading. The result of the factor analyses indicated that there are

3 factors measuring leisure constraints with an Eigenvalue of over 1. These 3 factors explain 72.74% of the variance and the Cronbach alpha ( $\alpha$ ) of the scale is .85 (Table 2).

Table 2.	Exploratory Fa	actor Analyses
----------	----------------	----------------

Items		Std. D.	Factor loading	Eigen value		α
Intrapersonal Constraints	2,09	1,46		7,297	56,13	,90
Not interested	2,15	1,76	,747			
Too shy to participate	2,00	1,65	,815			
Don't feel welcome	2,13	1,72	,837			
Don't have enough information	2,23	1,75	,742			
Don't have skills or physical ability	1,95	1,65	,675			
Interpersonal Constraints	2,21	1,48		2,889	8,54	,84
My friends don't want to do leisure activities	2,34	2,43	,697			
Don't have companions to go with	2,17	2,17	,803			
People I know live far away	2,56	2,56	,747			
My family don't let me	1,77	1,77	,547			
Structural Constraints	2,37	1,55		1,081	6,07	,80
Cannot afford it	2,61	2,61	,721			
Don't have right equipment or clothes	1,96	1,96	,557			
I don't have time for leisure activities	2,53	2,53	,801			
Cumulative % of Variance					72,74	
Scale Cronbach's Alpha						,85
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	,935					
Bartlett's Test of Sphericity Approx. Chi-Square	2908	3,514				
df	66					
Sig.	,000					

## The Results of T-tests

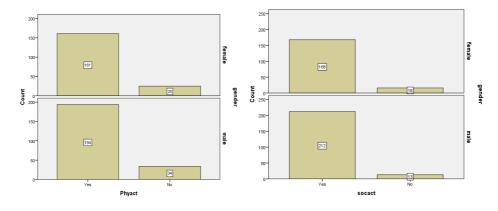
The results of the independent T-Test showed that while there is a significant difference (p<0.05) between men and women with regards to intrapersonal and interpersonal constraints, they do not differ in structural constraints. As is seen in Table 3, there is a significant difference between women and men with regard to intrapersonal constraints (t=-2,103; p<.05) and interpersonal constraints (t= 2,328; p<.05). The results revealed that women experience interpersonal constraints more than men, while men experience intrapersonal constraints more than women. With regards to activity, participation results supported that men participate in both physical (t=2,750; p<.01) and social activities (-1,975; p<.05) more than women. H1, H2, and H4 are accepted and H3 and H5 are rejected.

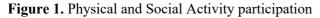
Variables	Groups	Ν	Mean	Std. D.	t Test		
					t	df	р
Intronovonal Constraints	Women	171	1,98	1,36	-2,103	384	,036*
Intrapersonal Constraints	Men	222	2,16	1,50			
Interpersonal Constraints	Women	174	2,26	1,50	2,328	201	020*
-	Men	220	2,16	1,43		384	,020*
Stunistical Constantints	Women	177	2,33	1,54	-,862	384	,389
Structural Constraints	Men	224	2,37	1,53			
	Women	164	1,75	,86	-2,750	369	,006**
Physical activity participation	Men	207	2,02	1,01			
	Women	168	1,88	,92	-1,975	380	,049*
Social activity participation	Men	214	2,07	0,93			

\*Significant at p<.05 \*\*significant at p<.01

The descriptive results of the study are demonstrated in figures 1 to 3. As is seen in figure 1, while 93% of men and %90 of women participate in social leisure activities participation in physical activities is %85 for men and %86

for women. 41% of women participate in physical leisure activities 1 or 2 times a week and 35% of men participate in physical activities 1 or 2 times. With regards to social activities, 38% of females participate 1 or 2 times, while 39% of males participate 3 or 4 times in a week (figure 2). Results have supported a significant difference in both physical and social activity participation frequency between men and women. Figure 2 also shows that the number of men participating in social and physical activities more than 6 times a week is higher than women who participate in these types of activities more than 6 times a week. Regarding the time spent on each leisure activity, there is not much difference between genders. As it is demonstrated in figure 3, 42% of women spent 1 to 2 hours on each physical activity and 46% of men spent 1 to 2 hours. 35% of women and 34% of men spend 3 to 4 hours on each social activity.





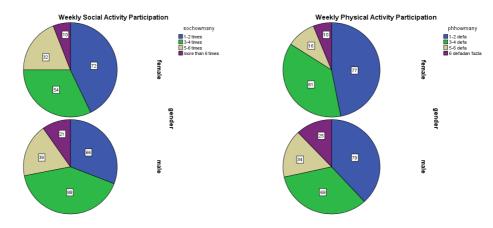


Figure 2. Weekly Physical and Social Activity Participation

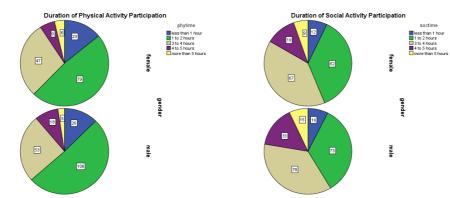


Figure 3. Duration of each Physical and Social Activity

## Discussion

The purpose of this research is to analyze differences between men and women aged 15 and 39 with regard to three dimensions of leisure constraints; intrapersonal, interpersonal, and structural and participation in physical and social leisure activities. Results showed that while women experience higher interpersonal constraints, men have scored higher in intrapersonal constraints. The current study also found that the participation of men is higher than women in both social and physical activities. Similarly, Fedler and Ditton (2001) have found that in USA women tend to drop out of fishing activity more than men. Demir (2003) also has revealed that in Turkey female students engage in physical activity less than male students.

Previous research indicated that women experience interpersonal constraints, such as family obligations more than men (Andrade et al., 2019; Albayrak, Caber, & Crawford, 2007; Demir, 2005). Similarly, current research showed that Turkish women experience more interpersonal constraints than men. The most important reason why women experience more constraints than men is family obligations (Adam et al., 2015; Andrade et al., 2019; Brown, 2001). For the current study, the average age of respondents is 35, and more than half of the respondents are under 35. Young women do not have family obligations as much as middle-aged women. However, they may still face some pressure from their families to participate in leisure activities. Another interpersonal constraint that Turkish women experience is a lack of partners (Kara & Özdeoğlu, 2017). On the other hand, men experience higher intrapersonal constraints which were also supported by past research (Cetinkaya, Yıldız, & Özçelik, 2018).

With regards to structural differences, although previous research supported higher structural constraints among women, that is not the case for the current study (Ayhan, Ekinci, Yalçın, & Yiğit, 2018). However, high mean scores indicated that both genders experience structural constraints more than any other constraint. Previous research among college students also revealed that the most common constraints that students experience are structural ones (Akyol & Akkaşoğlu, 2020). Accessibility is also found to be another example of a structural constraint that Turkish people experience in visiting National Parks (Cetinkaya et al., 2018).

Current study has revealed that participation in physical activities is lower among women than men. Demir (2003) observed similar results for high school students in physical activity participation. While previous research focused only on physical leisure activity, current study has focused both physical and social activity. Surprisingly, results demonstrated a higher participation in social activities among men than women.

#### **Conclusion and Reccomendations**

The young generation needs to be encouraged to participate in leisure activities. One important step to reaching this goal is to help them negotiate the constraints they experience. Firstly, to overcome intrapersonal constraints, leisure activities should be engrained in a person's life when they are very young. The programs aiming to create awareness of leisure activities among families could be a start. In the next step, schools, especially government schools should develop some extracurricular programs for students under 12. Schools could collaborate with Recreation Management departments in Universities to create such programs. Increasing awareness among families also will allow them to negotiate interpersonal constraints. Women-only programs for college students would be also a way to help women in negotiating interpersonal constraints. Government and Non-Governmental Organizations (NGOs) could collaborate to develop recreational activity programs for young women. Recreation Management

departments in the universities should also develop projects to encourage an active lifestyle in collaboration with Regional Development Agencies. The Agencies have funds to support such programs. The funding from such agencies will also help to negotiate structural constraints such as lack of financial means. If the activity programs are developed free of charge, they would reach a wider population. Lastly, to encourage women to participate in physical activities more gyms and sports centers could offer some discounts to women. Recreation facilities could hire more female staff and add female-friendly features such as babysitter service, and SPA.

The main limitation of the study is the lack of representativeness. The data were collected only in Western parts of Turkey. Future research could focus on a different area, such as the Eastern or Northern part of Turkey. Another limitation is the sample represents only millennials and generation Z. Future studies could focus on other cohort such as older generations or generation Y, or minorities such as disabled or immigrants.

## Declaration

The ethics committee permission document required for the collection of data used in this study was obtained from Sakarya University of Applied Sciences Ethics Committee with the date 29/04/2022 and the decision/number of 45063.

#### REFERENCES

- Adam, I., Hiamey, S. E., & Afenyo, E. A. (2015). Leisure constraints in the university setting in Ghana. *Annals of Leisure Research*, 18(1), 145-158.
- Alexandris, K., & Carroll, B. (1997). An analysis of leisure constraints based on different recreational sport participation levels: Results from a study in Greece. *Leisure Sciences*, 19(1), 1-15.
- Andrade, R. D., Junior, G. J. F., Capistrano, R., Beltrame, T. S., Pelegrini, A., Crawford, D. W., & Gomes Felden,
  É. P. (2019). Constraints to leisure-time physical activity among Brazilian workers. *Annals of Leisure Research*, 22(2), 202-214
- Akyol, C., & Akkaşoğlu, S. (2020). Gençlerin Boş Zamanlarında Rekreasyon Faaliyetlerine Katılım Engelleri Üzerine Bir Araştırma. *Journal of Tourism and Gastronomy Studies*, 8(3), 2072-2089.
- Albayrak, T., Caber, M., & Crawford, D. (2007). Leisure constraints and the pursuit of adventure activities in Turkey. *Anatolia*, 18(2), 243-254.
- Ayhan, C., Ekinci, N., Yalçın, 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.
- Brown, P. R., Brown, W. J., Miller, Y. D., & Hansen, V. (2001). Perceived constraints and social support for active leisure among mothers with young children. *Leisure Sciences*, 23(3), 131-144.
- Çetinkaya, G., Yıldız, M., & Özçelik, M. A. (2018). Why Do So Few Local People Visit National Parks? Examining Constraints to Antalya's National Parks, Turkey. *Advances in Hospitality and Tourism Research (AHTR)*, 6(1), 92-110.

- Coble, T. G., Selin, S. & Erickson, B. B. (2003) Hiking alone: understanding fear, negotiation strategies and the leisure experience. *Journal of Leisure Research*, 35 (1), 1 23.
- Crawford, D. W., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure Sciences*, 9(2), 119-127.
- Demir, C. (2003). Impacts of demographic variables on the preference of sport activities carried out by undergraduate students: An implication from Turkey. *Journal of Sport Tourism*, 8(4), 302-312.
- Demir, C. (2005). Perceived significance of factors influencing leisure participation by gender: Implications from Turkey. *Leisure/Loisir*, 29(1), 121-136.
- Fancourt, D., Aughterson, H., Finn, S., Walker, E., & Steptoe, A. (2021). How leisure activities affect health: a narrative review and multi-level theoretical framework of mechanisms of action. *The Lancet Psychiatry*, 8(4), 329-339.
- Fedler, A. J. & Ditton, R. B. (2001). Dropping out and dropping in: A study of factors changing recreational fishing patterns. *North American Journal of Fisheries Management*, 21, 283-292.
- Gürbüz, B., & Henderson, K. A. (2014). Leisure activity preferences and constraints: Perspectives from Turkey. *World Leisure Journal*, 56(4), 300-316.
- Hubbard, J., & Mannell, R. C. (2001). Testing competing models of the leisure constraint negotiation process in a corporate employee recreation setting. *Leisure sciences*, 23(3), 145-163.
- Kara, F. M., & Özdeoğlu, B. (2017). Examination of Relationship between Leisure Boredom and Leisure Constraints. *Sport Sciences*, 12(3), 24-36.
- Koca, C., Henderson, K. A., Asci, F. H., & Bulgu, N. (2009). Constraints to leisure-time physical activity and negotiation strategies in Turkish women. *Journal of Leisure Research*, 41(2), 225-251.
- Livengood, J. S. & Stodolska, M. (2004). The effects of discrimination and constraints negotiation on leisure behavior of American Muslims in the post-September 11 America. *Journal of Leisure research*, 36, 183-208.
- Mowen, A. J., Payne, L. L. & Scott, D. (2005) Change and stability in park visitation constraints revisited. *Leisure Sciences*, 27, 191 204.
- Saygan, B. B., & Uludağlı, N. P. (2021). Yaşam boyu toplumsal cinsiyet rollerinin gelişimi. *Psikiyatride Güncel Yaklaşımlar*, 13(2), 354-382.
- Tabachnick, B.G., & Fidell, L.S., (2001). Using multivariate statistics. Boston, MA: Allyn and Bacon.
- White, D. D. (2008). A structural model of leisure constraints negotiation in outdoor recreation. *Leisure Sciences*, 30(4), 342-359.

Coşkun, G.

Evrak Tarih ve Sayısı: 29.04.2022-E.45852



T.C. SAKARYA UYGULAMALI BİLİMLER ÜNİVERSİTESİ REKTÖRLÜĞÜ Etik Kurulu

29.04.2022

Sayı : E-26428519-044-45852 Konu : Etik Kurul Kararı 22/10 "Dr. Öğr. Üyesi Güliz COŞKUN"

Sayın Dr. Öğr. Üyesi Güliz COŞKUN

Etik Kurulunun 29/04/2022 tarih ve 22 no'lu toplantısında almış olduğu onuncu maddesine (madde 10) ilişkin karar örneği aşağıda sunulmuştur.

Madde 10 – Dr. Öğr. Üyesi Güliz COŞKUN' un 18/04/2022 tarihli ve 45063 sayılı dilekçesi ve ekleri görüşmeye açıldı.

Yapılan görüşmeler sonunda Turizm Fakültesi Öğretim Üyesi **Dr. Öğr. Üyesi Güliz COŞKUN'** un hazırladığı **"Türk Toplumunda Boş Zaman Değerlendirme Süreci"** başlıklı çalışmasının Etik açıdan **uygun olduğuna** oy birliğiyle karar verilmiştir.

> Prof. Dr. Yusuf ÇAY Etik Kurulu Başkanı

Ek: Başvuru dilekçesi ve ekleri (15 sayfa)

Bu belge, güvenli elektronik İmza ile imzalanmıştır. Doğrulama Kodu :BS5BKYE80C Pin Kodu :90552

Adres:Etik Kurulu Telefon No:0 264 616 00 09 Faks No:0 264 616 00 14 e-Posta:etik@subu.edu.tr Elektronik Ağ:www.subu.edu.tr Kep Adresi:sakaryauygulamalibilimler@hs01.kep.tr



Unvani: Birim Evrak Sorumlusu Telefon No: 0 264 616 00 12

Bu belge, güvenli elektronik imza ile imzalanmıştır.