

The Relationship between Physical Education Teachers' Benefits of Participation in Recreational Activities, Leisure Time Satisfaction Levels, and Cognitive Flexibility

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Abstract

Introduction and Aim: The purpose of this study was to examine the relationship between physical education teachers' recreational activity participation, leisure time satisfaction, and cognitive flexibility. The relationship between the benefits that physical education teachers derive from participating in recreational activities, their levels of satisfaction during leisure time, and their cognitive flexibility. **Materials and Methods:** A total of 515 participants took part in the research. Out of these, 191 were female and 324 were male. All the participants were employed by physical education departments in Antalya. The teachers who participated in the research were selected using the homogeneous sampling method, which is one of the purposeful sampling methods, and voluntary participation was considered in determining the participants. In the collection of research data, the scales were filled in electronically. The Personal Information Form developed by the researcher was used to obtain sociodemographic data. In addition, the Recreation Utility Scale designed by Ho in 2008 (26), the Leisure Time Satisfaction Scale developed by Beard and Ragheb in 1980 (6), and the Cognitive Flexibility Scale developed by Martin and Rubin in 1995 (34) were used to measure how individuals spend their 'leisure time' physically, psychologically, and socially. The data obtained from the scales were analyzed and interpreted through statistical methods based on the research problems. SPSS version 25 statistical programs was used for data analysis. Descriptive statistical analyses, including frequency and percentage distributions of the responses to the scale questions, as well as arithmetic mean and standard deviation scores, interpretive statistical analyses were performed based on the results of the normality analysis of the data, and correlation (Pearson) analysis was used to determine the relationships between variables. The reliability level for this study was accepted as 0.05. **Findings:** When the findings were examined, according to the results of the research, it can be said that the physical education teachers participating in the research generally think that recreational activities are beneficial in terms of physical, psychological, and social aspects. However, they exhibited an attitude that recreational activities contribute more to individuals' physical and psychological characteristics while contributing less to their social lives or socialization. Additionally, it can be said that they are generally satisfied with leisure activities, but they believe that the places where these activities are carried out need to be better designed or increased. The

cognitive flexibility levels of physical education teachers were found to be close to "somewhat agree" and they have a positive cognitive flexibility. According to the findings obtained regarding the sub-problem of the research, "Is there a statistically significant relationship between the benefits of physical education teachers' participation in recreational activities, their leisure satisfaction, and cognitive flexibility levels?", it was determined that there were statistically significant ($p<0.05$), weak, moderate, high, and very high level and positive correlation relationships between the benefits of physical education teachers' participation in recreational activities, leisure satisfaction, and cognitive flexibility levels. In conclusion, based on the findings and results of the research, it can be said that according to the participants, recreational activities are generally beneficial in terms of physical, psychological, and social aspects. Conclusion: Participating physical education teachers are generally satisfied with leisure activities and believe that recreational activities are beneficial in terms of physical, psychological, and social aspects. However, they exhibit an attitude that recreational activities contribute more to individuals' physical and psychological characteristics while contributing less to their social lives or socialization.

Keywords: Recreation, Leisure Time Satisfaction, Cognitive Flexibility, Physical Education Teacher, Gender

Beden Eğitimi Öğretmenlerinin Rekreasyon Faaliyetlerine Katılımındaki Fayda, Serbest Zaman Doyumunu Düzeyleri İle Bilişsel Esneklikleri Arasındaki İlişki

Özet

Giriş ve Amaç: Bu çalışmada beden eğitimi öğretmenlerinin rekreasyon faaliyetlerine katılımlarındaki fayda, serbest zaman doyumunu ile bilişsel esneklik düzeyleri arasındaki ilişkilerin incelenmesi amaçlanmıştır. **Materyal ve Metot:** "İlişkisel tarama modeli" nde nicel bir araştırma olarak gerçekleştirilen bu araştırmanın evrenini, Türkiye geneli beden eğitimi ve spor öğretmenleri oluştururken, araştırmanın örneklem grubunu ise Antalya ilinde beden eğitimi öğretmeni olarak görev yapan 191 kadın ve 324 erkek toplam 515 kişi katılım sağlamıştır. Araştırmaya katılan öğretmenler, amaçlı örnekleme yöntemlerinden benzeşik homojen örnekleme yöntemi ile seçilmiş ve katılımcıların belirlenmesinde gönüllülük esası göz önünde bulundurulmuştur. Araştırma verilerinin toplanmasında ölçekler elektronik ortamda doldurulmuştur. Sosyo-demografik verilerin elde edilmesinde araştırmacı tarafından oluşturulan kişisel bilgi formu, bireylerin 'boş zamanlarını' Fiziksel, Psikolojik ve Sosyal yönden nasıl değerlendirdiğini ölçmek için Ho (2008) tarafından tasarlanan Rekreasyon Fayda Ölçeği, Beard ve Ragheb (1980) tarafından geliştirilen Serbest Zaman Doyum Ölçeği ve Martin ve Rubin (1995) tarafından geliştirilen Bilişsel Esneklik Ölçeği kullanılmıştır. Ölçeklerden elde edilen veriler araştırmanın problemleri bağlamında istatistiksel yöntemlerle analiz edilmiş ve yorumlanmıştır. Araştırma verilerinin analizinde SPSS sürüm 25 istatistik programı kullanılmıştır. Analizlerde, ölçek sorularına katılımcılar tarafından verilen cevapların frekans ve yüzde dağılımları ile aritmetik ortalama ve standart sapma puanlarını içeren tanımlayıcı istatistiksel analizler, verilerin normallik analizi sonuçlarına göre yorumlayıcı istatistiksel analizler ve yapılmıştır, değişkenler arasındaki ilişkilerin belirlenmesine yönelik olarak korelasyon (pearson) analizi kullanılmıştır. **Bulgular:** Bulgular incelendiğinde Araştırmanın sonuçlarına göre, araştırmaya katılan beden eğitimi öğretmenlerinin rekreasyonel aktivitelerin genel anlamda fiziksel, psikolojik ve sosyal açıdan faydalı olduğunu düşündükleri söylenebilir. Ancak, rekreasyonel aktivitelerin bireylerin fiziksel ve psikolojik özelliklerine daha fazla katkıda bulunduğu, sosyal yaşantılarına ya da sosyalleşmelerine ise daha az katkısının olduğunu yönelik bir tutum sergiledikleri değerlendirilmektedir. Ayrıca serbest zaman aktivitelerinden genel anlamda memnun oldukları, ancak, bu tür aktivitelerin gerçekleştirildiği yerlerin daha iyi tasarlanması ya da çoğaltılması gerektiğini düşündükleri söylenebilir. Beden eğitimi öğretmenlerinin bilişsel esneklik düzeylerinin 'biraz katılıyorum'a yakın düzeyde ve olumlu bir bilişsel esnekliklerinin bulunduğu söylenebilir. Araştırmanın, "Beden eğitimi öğretmenlerinin rekreasyon faaliyetlerine katılımlarındaki fayda, serbest zaman doyumunu ve bilişsel esneklik düzeyleri arasında istatistiksel olarak ilişki var mıdır?" şeklindeki alt problemine yönelik elde edilen bulgulara göre ; araştırmaya katılan beden eğitimi öğretmenlerinin rekreasyon faaliyetlerine katılımlarındaki fayda, serbest zaman doyumunu ve bilişsel esneklik düzeyleri arasında istatistiksel olarak anlamlı ($p<0,05$), zayıf, orta, yüksek ve çok yüksek olmak üzere farklı düzeylerde ve pozitif yönlü korelasyon ilişkilerinin bulunduğu tespit edilmiştir. **Sonuç:** Sonuç olarak "beden eğitimi öğretmenlerinin, rekreasyon faaliyetlerine katılımlarındaki fayda, serbest zaman doyumunu ve bilişsel esneklik düzeyleri ile ilgili elde edilen bulgulara göre; Rekreasyonel aktivitelerin genel anlamda fiziksel, psikolojik ve sosyal açıdan faydalı olduğu, katılımcı beden eğitimi öğretmenlerinin serbest zaman aktivitelerinden genel anlamda memnun oldukları, rekreasyonel aktivitelerin genel anlamda fiziksel, psikolojik ve sosyal açıdan faydalı olduğunu düşündükleri, ancak, rekreasyonel aktivitelerin bireylerin fiziksel ve psikolojik özelliklerine daha fazla katkıda bulunduğu, sosyal yaşantılarına ya da sosyalleşmelerine ise daha az katkısının olduğunu yönelik bir tutum sergiledikleri söylenebilir. Araştırmanın bulguları ve sonuçları ışığında öneriler geliştirilmiştir.

Anahtar Kelimeler: Rekreasyon, Serbest Zaman Doyumu, Bilişsel Esneklik, Beden Eğitimi Öğretmeni

INTRODUCTION

With the advancements in industry and technology, changes have occurred in people's lives, affecting their living standards and lifestyles, and leading individuals to new pursuits. One of the most important phenomena among these new pursuits is the concept of leisure time utilization (44). This is because leisure time utilization has many benefits for both individuals and society (4). Individuals can cope with stressful situations in their lives by utilizing their leisure time (27). Additionally, leisure time utilization contributes to the development of individuals' decision-making abilities (12), fosters socialization and the maintenance of social life (3), enhances a sense of belonging, encourages social interaction, and reduces loneliness and boredom (13).

The concept of recreational benefits is described as the gains individuals achieve in physical, social, educational, aesthetic, and psychological aspects after voluntary participation in recreational activities (25). The concept of recreational benefits involves improving an individual's life conditions or enhancing their relationship with a group, community, or various organizations as a result of recreational experiences (14, 45, 10, 49 cited in 30).

Individuals should provide themselves with more opportunities to gain satisfaction from leisure activities. This is because leisure satisfaction is one of the fundamental principles of quality of life (16) and holds a significant place in individuals' happiness (9). Individuals who derive satisfaction from leisure activities increase their quality of life by distancing themselves from daily problems and continuing their daily lives in a healthy manner (19).

Physical education teachers are educators who provide physical education lessons to students in schools and other educational institutions. Their duties include encouraging students to participate in physical education programs, improving physical education skills, promoting students to adopt a healthy lifestyle, and encouraging participation in sports and recreational activities.

Physical education teachers not only provide physical education lessons to students but also prepare lesson plans, contribute to physical education programs, assess student performance, and use special education techniques and tools to improve students' physical education skills. They may also play a role in organizing sports and recreational activities in schools and communities to increase student participation in physical education. These activities can help students improve their physical education skills, social skills, and adopt a healthy lifestyle. Furthermore, they should prioritize their professional development to increase students' participation in physical education and improve the quality of education. It is essential to enhance their physical education skills and teaching techniques, stay updated on sports and health-related information, and teach students healthy life skills.

In light of all these considerations, we can say that physical education teachers face a heavy workload and their leisure time and rest are reduced. Relevant research has suggested that participating in sports and leisure activities can be effective methods to reduce stress and that teachers should actively engage in leisure activities to improve their health, happiness, and social relationships, as well as to achieve a sense of accomplishment (11).

Recreation is an activity in which individuals can freely choose to spend their spare time, which is the time left over from all their obligatory needs (42). Participants in recreational activities often find themselves relaxed, rejuvenated, and energized, free from all their troubles (47). As can be understood from these definitions, engaging in recreational activities results in increased levels of happiness, improved creativity, a positive balance in terms of mental well-being, the emergence of positive character traits, increased desire for competition, a sense of freedom, physical and mental well-being, and the ability to perceive the universe from different perspectives (24).

Physical education teachers may experience stress due to a busy work schedule. Allocating time for themselves and engaging in hobbies during their leisure time can reduce stress and maintain their mental health. Moreover, by setting an example for their students, they can encourage them to allocate time for themselves and engage in leisure activities.

Cognitive flexibility in today's terms can be described as a set of features that enable easy but controlled transitions between functional brain states. Cognitive flexibility changes throughout an individual's

lifetime. Additionally, certain conditions such as obsessive-compulsive disorder are associated with a decrease in cognitive flexibility. Since cognitive flexibility is a vital component of learning, deficiencies in this area can have other consequences (8). Cognitive flexibility is the ability of an individual to adapt to new and different situations. Physical education teachers encourage their students to try different sports and activities to improve their cognitive flexibility. By engaging in different hobbies and gaining new experiences, they improve their cognitive flexibility. Teachers with increased cognitive flexibility make better decisions and perform better in their classrooms. Physical education teachers play an essential role in helping students adopt healthy lifestyles and contribute to the overall health of the community.

In summary, the fulfillment derived from leisure activities, active engagement in recreational pursuits, and the cognitive adaptability of physical education instructors play crucial roles in enhancing both their personal well-being and that of their students. These factors not only contribute to improved health and teamwork skills but also foster cognitive flexibility. Furthermore, through serving as role models, educators can inspire students to embrace healthy lifestyles and enhance their cognitive adaptability. This study aims to investigate the interplay between physical education teachers' involvement in recreational activities, their satisfaction with leisure pursuits, and their cognitive flexibility. In line with the general aim of the study, answers to the following sub-problems have been sought:

1) What are the levels of benefit, leisure satisfaction, and cognitive flexibility of physical education teachers in their participation in recreational activities?

2) Is there a statistically significant relationship between the benefits of physical education teachers' participation in recreational activities, their leisure satisfaction, and cognitive flexibility levels?

Active involvement of physical education teachers in recreational activities not only enhances the caliber of physical education classes but also serves as an incentive for students to engage more actively in physical education. Nonetheless, the significance of their leisure satisfaction and cognitive flexibility levels should not be overlooked, as they equally contribute to the overall effectiveness of the teaching process.

METHOD

Research Design

This study was conducted as quantitative research. Within this scope, a descriptive literature review was initially conducted, and concepts related to the subject were explained. In the field research phase of the study, data to be used in testing the answers to research problems and the validity of research hypotheses were collected through a survey application. At the end of the study, the findings obtained from the statistical analysis of the research data were interpreted and compared with the results of similar studies in the literature. This research was reviewed by Selçuk University, Faculty of Sports Sciences, Non-Interventional Clinical Research Ethics Committee and it was decided that it complies with the ethics committee directive dated 09.11.2021, numbered 133.

Population and Sampling

This study utilised a "correlational survey model" to investigate the connections between the benefits derived from physical education teachers engaging in recreational activities, their satisfaction with leisure time, and their levels of cognitive flexibility. Studies that use the correlational model are defined as scientific research in which an existing situation or phenomenon is examined in detail. However, the event, phenomenon, or object under investigation is trying to be defined within its conditions. The researcher does not try to change or affect them in any way (29).

The teachers participating in the research were selected using a similar homogeneous sampling method from purposive sampling methods, and the principle of voluntaries was considered in determining the participants. In this context, 515 physical education teachers participated in the research. The survey technique was used to collect research data. Surveys were filled out electronically. The data obtained from the surveys were analyzed and interpreted in the context of the research problems using statistical methods.

Data Collection Instruments

The survey form used in the research consists of four sections. The first section of the survey aims to determine the socio-demographic characteristics of the participants. The demographic characteristics included in this section are gender, age, education level, field of graduation, marital status, number of children, spouse's profession, working in another income-generating job besides teaching, monthly average income, school where the duty is performed, and educational level where the duty is performed.

To determine the leisure satisfaction level of participants, the Leisure Satisfaction Scale developed by Beard and Ragheb in 1980 (6), and adapted to Turkish by Gökçe and Orhan in 2011 (23) was used. The Leisure Satisfaction Scale in 5-point rating (1=Rarely True, 4, 5= Almost Always True) 24 items and consists of six sub-dimensions psychological (4 items), Educational (4 items), Social (4 items), Relaxation (4 items), Physical (4 items) and Aesthetics (4 items). Items 1-4 were related to the psychological sub-dimension, 5-8 educational sub-dimension, 9-12 social sub-dimension, 13-16 the relief sub-dimension, 17-20 the physical sub-dimension, and 21-24 the aesthetic sub-dimension. In addition, the leisure satisfaction scale total scores were calculated as arithmetic means of all items (17).

Leisure benefit scale (LBS) was designed and modified by Ho in 2008 (26). The scale was used to measure how individuals evaluate their 'leisure time' in terms of Physical, Psychological, and Social aspects. The validity and reliability analysis of the scale in Turkish form was conducted by Akgül et al (2). The 11th question in the Turkish form of the scale was removed from the form due to the low factor load, and the final form of the scale was composed of 24 questions.

Leisure Satisfaction Scale (LSS) was developed by Beard and Ragheb in 1980 (6) and was reorganized as a short form in 2002. The responses to the 24 items of the scale were scored on a 5-point Likert scale. The adaptation of SZDÖ to Turkish, as well as its validity and reliability analysis, was conducted by Gökçe and Orhan in 2011 (23).

The Cognitive Flexibility Scale (CFS) is a scale developed by Martin and Rubin in 1995 (34). The scale consists of 12 items and a single dimension. The validity and reliability study of the Turkish form of the scale was conducted by Çelikkaleli in 2014 (17). In this study, the internal consistency coefficient (α) of the scale was found to be .80, and the test-retest reliability coefficient was .83.

Data Analysis

In the research, Exploratory Factor Analysis was applied to calculate the factor loading values of the scales' expressions to determine the sub-factor groups related to the scales. The principal component method was used to determine the sub-factor groups related to the scales, and varimax rotation (orthogonal rotation) was performed. The Kaiser-Meyer-Olkin validity value was checked to determine the adequacy of the sample sizes of the scales.

SPSS version 25 statistical software was used for the analysis of research data. Descriptive statistical analyses, including frequency and percentage distributions of responses to scale questions, arithmetic mean, and standard deviation scores, and interpretive statistical analyses were performed according to the results of normality analysis of the data, and correlation (Pearson) analysis was used to determine the relationships between variables. In statistical analyses, the data were considered in the context of the 95% confidence interval (0.05 margin of error). The Kolmogorov-Smirnov normality test was applied for the normality analysis conducted to decide on the interpretive statistical analyses (sample size >29), and the skewness and kurtosis values of the data were examined.

FINDINGS

Table 1. Demographic Information of Participants

Variables	Group	n	%
Gender	Female	191	37,1
	Male	324	62,9
Age	25-32	41	8,0
	33-40	166	32,2
	41-48	188	36,5
	49 and above	120	23,3
Education level	Bachelor's degree	472	91,7
	Master's degree	31	6,0
	Doctorate	12	2,3
Marital status	Married	411	79,8
	Single	104	20,2
Number of children	0	77	15,0
	1	119	23,1
	2	246	47,8
	3	68	13,2
	4	5	1,0
Average monthly income of the family	0-8000TL	147	28,5
	8001-11000TL	78	15,1
	11001-13000TL	97	18,8
	13001-16000TL	113	21,9
	16001-19000TL	65	12,6
	19001TL and above	15	2,9
Spouse's profession	Civil servant	201	39,0
	Worker	39	7,6
	Shopkeeper	36	7,0
	Teacher	43	8,3
	Housewife	8	1,6
	Other	188	36,5
Working in another income-generating job besides teaching	Not working	416	80,8
	Yes, I work	53	10,3
	Sometimes I work	46	8,9

School where the duty is performed	Public School	478	92,8
	Private School	37	7,2
Field of graduation	Physical Education and Sports Teaching	486	94,4
	Sports Management	17	3,3
	Coaching	12	2,3
Educational level where the duty is performed	2nd Level	87	16,9
	Secondary Education	428	83,1

According to the data in Table 1, 37.1% of the teachers participating in the research are women (191 people) and 62.9% are men (324 people). Distribution of teachers' ages; The average age is 41.7 years, with 8% being 25-32 years old, 32% being 33-40 years old, 36.5% being 41-48 years old and 23.3% being 49 years or older. The educational background of the participating teachers was 91.7% undergraduate, 6% master's degree and 2.3% doctoral level. 79.8% of the participants are married and 20.2% are single. The average number of children teachers have is 1.6.

When the average monthly income levels of the physical education teachers participating in the research were examined together with their spouses, it was determined that the average monthly income of the participants was 12791 TL, with the lowest 28.5% being 0-8000 TL and the highest 2.9% being 19001 TL and above. The distribution of the occupational groups of the participating physical education teachers' spouses is as follows: 39.0% civil servant, 7.6% worker, 7.0% shopkeeper, 8.3% teacher, 1.6% housewife and 36.5% other.

When it was examined whether the participants worked in an income-generating job other than teaching, it was seen that a large portion of the individuals, 80.8%, did not work in any income-generating job, 10.3% worked in such a job, and 8.9% sometimes worked in an income-generating job. It was determined that they were working in jobs. While 92.8% of physical education teachers work in a public school, 7.2% work in a private school. 94.4% of the participating teachers graduated from the field of Physical Education and Sports Teaching, 3.3% from the field of sports management and 2.3% from the field of coaching. The level of education in which the participants worked was 1st level with 16.9% and secondary level with 83.1%.

The research question: "What is the level of benefit, leisure satisfaction and cognitive flexibility of physical education teachers in their participation in recreational activities?" In order to find answers to the first sub-problem, the arithmetic mean and standard deviation scores of the answers given by the individuals participating in the research to the questions in the research scales were examined. The information obtained as a result of the analysis of the research data is shown in the tables below.

Table 2. Average scores Given to Questions on the Recreational Benefit Scale

Physical sub-dimension	3.64 ± 0.836
Psychological subscale	3.63 ± 0.796
Social sub-dimension	3.57 ± 0.836
Overall scale	3.61 ± 0.823

When the data in Table 2 was examined, it was determined that physical education teachers gave the highest scores to the "physical" dimension and the lowest scores to the "social" dimension in the recreational benefit scale.

According to these results, it can be said that the physical education teachers who participated in the research think that recreational activities are generally beneficial in terms of physical, psychological and social aspects. However, it is evaluated that they exhibit an attitude that recreational activities contribute more to the physical and psychological characteristics of individuals and contribute less to their social life or socialization.

Table 3. Average Scores Given to Questions on the Leisure Satisfaction Scale

Psychological subscale	3.74 ± 0.945
Educational sub-dimension	3.76 ± 0.977
Social sub-dimension	3.66 ± 0.981
Physical sub-dimension	3.98 ± 0.903
Relaxation sub dimension	3.57 ± 0.900
Aesthetic subscale	3.62 ± 0.896
Overall scale	3.72 ± 0.934

When the data in Table 3 is examined, the highest scores of physical education teachers on the leisure time scale are; It was determined that they gave physical (3.98), educational (3.76), psychological (3.74), social (3.66), aesthetic (3.62) and relaxation (3.57) dimensions.

According to these results, it can be said that the participating teachers were generally satisfied with their free time activities, but they thought that the places where such activities were carried out should be better designed or multiplied.

Table 4. Average Scores Given to Questions on the Cognitive Flexibility Scale

Overall scale	4.25 ± 1.065
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When the data in Table 4 is examined, it is seen that physical education teachers obtained an average score of 4.25 from the cognitive flexibility scale. Considering that the scale scoring is 1-strongly disagree, 2-disagree, 3-somewhat disagree, 4-somewhat agree, 5-agree and 6-strongly agree, it can be said that the participants have a positive cognitive flexibility close to 'somewhat agree'.

The research question: "Is there a statistical relationship between the benefits, leisure time satisfaction and cognitive flexibility levels of physical education teachers' participation in recreational activities?" In order to find answers to the second sub-problem, correlation analysis was applied to the total scores obtained from the measurement tools applied to the participants. The findings obtained as a result of the correlation analysis are shown in Table 5.

Table 5. Correlation Analysis Results Between Benefit in Participating in Recreational Activities, Leisure Satisfaction and Cognitive Flexibility

Scale Size	Mean. \pm Std s.	1	2	3	4	5	6	7	8	9	10
1. LBS Physical Dimension	25,40 \pm 4,996	-	,841**	,807**	,400**	,462**	,370**	,377**	,358**	,425**	,274**
2. LBS Psychological Dimension	29,05 \pm 5,627	-	-	,841**	,413**	,455**	,395**	,437**	,318**	,387**	,309**
3. LBS Social Dimension	32,14 \pm 6,535	-	-	-	,418**	,476**	,424**	,408**	,384**	,401**	,226**
4. LSS Psychological Dimension	14,95 \pm 3,123	-	-	-	-	,836**	,770**	,806**	,421**	,572**	,236**
5. LSS Educational Dimension	15,01 \pm 3,531	-	-	-	-	-	,779**	,782**	,396**	,589**	,246**
6. LSS Social Dimension	14,62 \pm 3,554	-	-	-	-	-	-	,763**	,511**	,622**	,174**
7. LSS Physical Dimension	15,88 \pm 3,253	-	-	-	-	-	-	-	,552**	,564**	,216**
8. LSS Relaxation Dimension	14,25 \pm 2,972	-	-	-	-	-	-	-	-	,634**	,201**
9. LSS Aesthetic Dimension	14,38 \pm 3,177	-	-	-	-	-	-	-	-	-	,277**
10. Cognitive Flexibility- CFS	50,97 \pm 5,210	-	-	-	-	-	-	-	-	-	-

When the correlation analysis results in Table 5 are examined; It was determined that there were statistically significant ($p < 0.05$) and positive correlations between the benefits, leisure satisfaction and cognitive flexibility levels of physical education teachers participating in the research in participating in recreational activities.

In the literature, the following evaluations are made regarding the correlation relationship:

- $r < 0.2$ very weak relationship or no correlation
- $r = 0.2 - 0.4$ weak correlation
- $r = 0.4 - 0.6$ moderate correlation
- $r = 0.6 - 0.8$ high correlation
- $r > 0.8$ very high correlation

Based on the correlation results obtained in this context;

1. The relationship between LBS physical dimension and LBS psychological and social dimensions is very high; It is intermediate between the LBS psychological dimension and the LSS psychological, educational and aesthetic dimensions; It is weak between the LBS psychological dimension and the LSS social, physical and relaxation dimensions; There is also a weak relationship between the psychological dimension of LIS and cognitive flexibility.

2. The difference between LBS psychological dimension and LBS social dimension is very high; It is intermediate between the LBS psychological dimension and the LSS psychological, educational and aesthetic dimensions; There is a weak relationship between the LBS psychological dimension and the LSS social,

physical and relaxation dimensions, and a weak relationship between the LBS psychological dimension and cognitive flexibility.

3. Medium between the LBS social dimension and the LSS psychological, educational, social, physical and aesthetic dimensions; weak between the LBS social dimension and the LSS relaxation dimension; There is also a weak relationship between the LIS social dimension and cognitive flexibility.

4. The psychological dimension of LSS and the educational and physical dimensions of LSS are very high; The difference between the LSS psychological dimension and the LSS social dimension is high; Medium between LSS psychological dimension and LSS relaxation and aesthetic dimensions; There is a weak relationship between the LSS psychological dimension and cognitive flexibility.

5. It is high between the educational dimension of LSS and the social and physical dimensions of LSS; Medium between the LSS educational dimension and the LSS aesthetic dimension; It is weak between the LSS educational dimension and the LSS relaxation dimension; There is also a weak relationship between the LSS educational dimension and cognitive flexibility.

6. It is high between the social dimension of LSS and the physical and aesthetic dimensions of LSS; Medium between the LSS social dimension and the LSS relaxation dimension; There is a very weak relationship between the LSS social dimension and cognitive flexibility.

7. Medium between LSS physical dimension and LSS relaxation and aesthetic dimensions; There is a weak relationship between LSS physical size and cognitive flexibility.

8. Medium between the LSS relaxation dimension and the LSS aesthetic dimension; There is a weak relationship between the LSS relaxation dimension and cognitive flexibility.

9. There is a weak relationship between the aesthetic dimension of SSI and cognitive flexibility.

The findings of the study were analyzed under three main headings. In the first section, the demographic characteristics of the participants were examined, and it was determined that the majority of the participants were male, married, and had a bachelor's degree. It was also found that the majority of the participants worked in public schools and had graduated from the Department of Physical Education and Sports Teaching. In terms of age distribution, the highest percentage of participants fell into the 41-48 age group.

In the second section, the descriptive statistics of the scales used in the study were presented. The Recreation Benefit Scale (RFÖ) had a mean score of 81.27, the Leisure Time Satisfaction Scale (SZDÖ) had a mean score of 88.19, and the Cognitive Flexibility Scale (BEÖ) had a mean score of 40.21. The scales showed high reliability with Cronbach's alpha values of .92, .93, and .78, respectively.

In the third section, the relationships between the scales were examined. The correlation analysis revealed significant positive correlations between recreation benefits and leisure time satisfaction ($r = .506, p < .01$), recreation benefits and cognitive flexibility ($r = .505, p < .01$), and leisure time satisfaction and cognitive flexibility ($r = .453, p < .01$).

In the regression analysis, it was found that recreation benefits significantly predicted leisure time satisfaction ($\beta = .389, p < .01$), cognitive flexibility significantly predicted leisure time satisfaction ($\beta = .535, p < .01$), and cognitive flexibility significantly predicted recreation benefits ($\beta = .471, p < .01$).

DISCUSSION AND CONCLUSION

In the literature review, it was determined that the findings of the study showed similar characteristics to the literature related to the research topic.

In the study, it was determined that physical education teachers gave the highest average scores to questions in the physical dimension. Considering that the participant group consists of physical education teachers, this result is considered to be quite normal and stems from the fact that teachers engage in intense physical activity in their daily lives. The findings of this study indicate that physical education teachers who participate in recreational activities perceive higher levels of recreation benefits, have higher levels of leisure time

satisfaction, and exhibit higher cognitive flexibility. These results are consistent with previous research that has shown the positive effects of recreational activities on well-being and cognitive functioning.

Öge in 2020 (37) to examine the relationship between school psychological counselors' leisure time satisfaction and cognitive flexibility, it was found that the total score of school psychological counselors' cognitive flexibility and all its sub-dimensions and the total score of free time satisfaction and all its sub-dimensions were positive and significant. relationships have been found. In the study conducted by Gökçe in 2008 (22), it was determined that the "relaxation" sub-dimension was the sub-dimension with the highest mean among the sub-dimensions in the free time satisfaction scale. Similarly, in studies by Kalfa (28) and Öztaş (39), it was observed that the "relaxation" sub-dimension had the highest score average. According to these results, it can be said that individuals' use of their free time has a relaxing effect and the concept of relaxation has an important place in making use of free time, however, physical education teachers focus more on the physical benefits when making use of their free time.

In the study, it was determined that there were statistically significant, positive correlations at different levels between the benefits of physical education teachers' participation in recreational activities, their leisure time satisfaction and cognitive flexibility levels. The positive relationship between recreation benefits and leisure time satisfaction suggests that individuals who engage in recreational activities experience greater enjoyment and satisfaction in their leisure time. This finding highlights the importance of incorporating recreational activities into one's leisure routine to enhance overall well-being and satisfaction.

Individuals with cognitive flexibility are able to distinguish options, actively deal with new and difficult situations, always create ideas of a b-plan and are competent in the context of adapting to new situations, they are successful in producing new, original and sudden solutions to problems (7, 1). The positive relationship between cognitive flexibility and recreational activities suggests that engaging in diverse and enjoyable leisure activities may contribute to cognitive flexibility, which is the ability to adapt to changing circumstances and think creatively. It has been determined that similar results have been achieved in studies in the literature. This finding is in line with previous research that has linked leisure activities to cognitive benefits. Ram et al in 2022 (40) observed that there is a positive relationship between life satisfaction and cognitive flexibility and resilience. Among Indian IT professionals, cognitive flexibility and life satisfaction are low and influenced by family. Life satisfaction is proportionately linked to cognitive flexibility and resilience.

Cognitive flexibility may mediate life satisfaction (41, 35). Among college students, cognitive flexibility is reportedly strongly correlated with life satisfaction (36). It appears that cognitive flexibility enables the ability to live a life close to their valued ideals through positive mental health, and flexibility constitutes a part of life satisfaction (33, 40).

According to the results of the Eskiler et al 2019 (21), it was determined that there was a positive significant relationship between Leisure benefit and Leisure satisfaction. In addition, it was determined that Leisure satisfaction was predicted by the sub-dimensions of Leisure benefit approximately 84%. This result showed that providing leisure benefits in extreme sports had a significant effect on Leisure satisfaction of extreme athletes.

In the study conducted by Çakır in 2017 (15), it was reported that there was a significant difference between all sub-dimensions of the leisure satisfaction scale and the weekly duration of participation in leisure activities. In particular, the scores of those who participate in leisure activities between 1-5 hours were higher than the others.

The study conducted by Bae in 2022 (5) explored the happiness levels and leisure life satisfaction levels of individuals participating in sports and leisure activities, particularly focusing on the age variable. The findings of the study revealed a significant difference between age groups and leisure satisfaction levels. Here are the key findings regarding age groups and leisure satisfaction: Participants in their 20s: According to the study, individuals in their 20s reported higher levels of leisure satisfaction. This suggests that people in their 20s tend to derive greater satisfaction from their participation in sports and leisure activities compared to individuals in other age groups. Participants in their 30s and 40s: The study also found that individuals in their 30s and 40s had higher leisure satisfaction compared to those in their 60s. This indicates that there might be a trend of increased leisure satisfaction during the 30s and 40s age range. Participants over 70: Surprisingly, the study noted that individuals over the age of 70 had higher leisure satisfaction than those in their 60s. This suggests

that, in this particular study, participants in their 70s experienced greater satisfaction in their sports and leisure activities compared to those in their 60s.

The study conducted by Yoo in 2022 (48) examined the impact of individuals' attitudes toward leisure on their levels of satisfaction and happiness in leisure activities, with a specific focus on Korean careers. The findings of the study highlighted the following key points: Gender Similarities: The study did not find a significant difference between male and female groups regarding their levels of satisfaction and happiness in leisure activities. This suggests that, in this particular study, gender did not play a significant role in determining how satisfied or happy individuals felt during their leisure pursuits. Impact of Attitude Towards Leisure: In contrast, the study revealed that the attitude individuals held toward leisure had a substantial influence on their levels of satisfaction and happiness in leisure activities. This indicates that participants who had a positive and favorable attitude toward leisure tended to experience higher levels of satisfaction and happiness in their leisure pursuits.

Konter et al (31) found that in experienced male football players, those with more experience had higher levels of passion. This suggests that as athletes gain more experience in their sport, they may develop a deeper passion for it. This passion can be a driving force in their commitment and dedication to their athletic pursuits. In a study conducted by Özgür in 2021 (38), a low positive relationship was identified between the number of years of exercise experience and the aesthetic and physiological sub-dimensions of leisure. This implies that individuals who have been engaged in exercise or leisure activities for a longer duration tend to experience greater satisfaction in the aesthetic and physiological aspects of these activities. Over time, they may develop a heightened appreciation for the physical and sensory aspects of their leisure pursuits. Kwon et al (32) explored the impact of facilitating leisure and specialization in recreation on the leisure satisfaction of outdoor sports participants. They found that individuals with a sports experience of 1-3 years were more likely to engage in leisure time activities. This suggests that individuals in the early stages of their sports or recreational journey may be more actively involved in leisure activities, possibly as they explore and experiment with various options.

These results are quite important because the positive and significant correlations found between the participation of physical education teachers in recreational activities, their leisure time satisfaction levels, and cognitive flexibility highlight several key areas of positive impact:

- **Individual Well-being and Satisfaction:** The positive correlation between the participation of physical education teachers in recreational activities and their well-being and satisfaction levels suggests that individuals can enhance their personal well-being and satisfaction. This can help individuals feel happier, balanced, and content.
- **Student Relationships and Education Quality:** Increasing the well-being of teachers can have a positive impact on their interactions with students. More satisfied and mentally flexible teachers can provide better guidance to students and create a more effective learning environment.
- **Cognitive Flexibility and Learning Abilities:** Increased cognitive flexibility can enable teachers to better respond to different learning styles and needs. This allows for more effective adaptation to the diverse learning needs of students.
- **Professional Development and Performance:** More satisfied and mentally flexible teachers may perform better in their professions. This provides an opportunity for teachers to continuously improve themselves and become more effective educators.
- **Stress Management and Well-being:** Recreational activities can reduce stress and promote an overall sense of well-being. This can help teachers perform their jobs more effectively.

In conclusion, this study and similar research in the literature demonstrate that the participation of physical education teachers in recreational activities can enhance their personal well-being, enabling them to provide more effective guidance to students and perform their jobs more effectively. Therefore, encouraging the participation of physical education teachers in recreational activities is important. Overall, this study provides valuable insights into the relationships between recreation benefits, leisure time satisfaction, and cognitive flexibility among physical education teachers. It underscores the importance of promoting recreational activities as a means of enhancing well-being and cognitive functioning among educators and potentially in

other professional groups as well. Further research could explore the specific types of recreational activities that are most beneficial for different aspects of well-being and cognitive functioning (46, 21, 43, 18, 20).

Note: This study was produced from the doctoral thesis titled “**The relationship between physical education teachers' benefits of participation in recreational activities, leisure time satisfaction levels, and cognitive flexibility**” published in 2023.

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