

## Comparison of physical activity and leisure benefits of Turkish and Polish students participating in the Erasmus program in Poland



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### ABSTRACT

This study aims to compare the personal statements of Turkish and Polish students in the Erasmus Student Exchange Program in Poland, focusing on the benefits of physical activity and leisure time. It also examines how these practices function among Turkish and Polish students within the framework of EU Higher Education Policies. Since 2004, Turkey has participated in EU programs like Socrates, Erasmus, and Leonardo da Vinci. Although Turkey's involvement in the Erasmus Program is relatively recent, the number of students participating in study abroad programs is rapidly increasing. This study investigates the benefits of physical activity and leisure time for Turkish and Polish students in the Erasmus Program. Data was collected using the "International Physical Activity Questionnaire" and the "Leisure Time Utilization Scale." These tools were administered online to 60 students (30 Turkish and 30 Polish) living in Poland. Participants provided informed consent before participating. Data analysis was conducted using SPSS (Statistical Package for the Social Sciences). The analysis showed no significant differences between the two groups in terms of physical activity participation and leisure activities. Both groups preferred similar physical activities during their free time. The recreational activities they tried for the first time were mainly sports-related, and their ability to meet their recreational needs was similar.

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### 1. Introduction

Globalization and digitalization have transformed higher education more than any other area of social and economic life. The constant flow of information and free access to news and information has brought many challenges for stakeholders in higher education worldwide (Mohamed Hashim et al., 2022). New technologies have brought lecturers and students closer together worldwide. The scientific community finds the increase in academic mobility in the digital age surprising. Young people are willing to leave the comfort of their homes and social networks to experience the academic life and culture of other countries (Shen et al., 2022). This trend is expected to have significant economic and social impacts on both sending and receiving countries. One program that provides opportunities for such

mobility is the Erasmus Student Exchange Program (ESEP) (Kabanbayeva et al., 2019).

ESEP is an important program that aims to promote international partnership and cooperation, equal opportunities in education, improve the quality of education, give importance to multiculturalism, fight against racism and xenophobia, be tolerant towards different cultures and lifestyles, develop common democratic values, and ensure mutual transfer of knowledge (Bostrom, 2010). With the ESEP, student mobility is facilitated between the member and candidate countries of the European Union (EU), providing students the opportunity to research and study in different countries and gain educational experiences related to their fields of study. The studies carried out in the countries participating in the ESEP and the degrees obtained in these studies are academically recognized by the universities in these countries. Through the cooperation established by ESEP, activities are carried out to develop academic staff, provide opportunities for practice in various educational environments, and create an educational bridge between societies. The activities within the framework of Erasmus programs provide many

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benefits not only on a country and institutional basis but also on an individual basis. These benefits include gaining effective communication skills, learning another language, establishing good friendships, gaining institutional experiences, and comparing intercultural approaches (Bostrom, 2010; Button et al., 2005). Within the framework of these common goals and benefits, Turkey has been conducting various activities in line with these common goals since 2001. Since the beginning of these activities, thousands of student and staff mobility activities have taken place between Turkey and EU member and candidate countries. Table 1

shows the data on this mobility from the TUA (2022) from 2014 to 2022.

Table 1 shows the number of students and staff who went from Turkey to EU member and candidate countries and the number of students and staff who came to Turkey from EU member and candidate countries for education and internship through higher education programs. Based on the number of students leaving Turkey for education and internship through higher education programs, it is known that the highest level of such mobility was achieved in Poland, with 2612 students and 453 staff members, 3065 in total.

**Table 1:** Data on student and staff mobility within the scope of ESEP between 2014-2022

	Number of students	Number of personnel	Total
From Turkey to EU member and candidate countries	124504	22119	146623
From EU member and candidate countries to Turkey	38861	14092	52953

The significant amount of mobility between Turkey and Poland within the Erasmus+ Student and Staff Mobility Program highlights the importance of understanding the social and economic differences experienced by participants moving between these countries. This understanding can serve as a valuable resource for future participants in the mobility program. Intercultural interactions between Turkish and Polish students have helped foster mutual relationships and promote shared understanding. Through cultural exchange and educational projects, friendships between Polish and Turkish participants have strengthened, with Polish students gaining a deeper appreciation of Turkish culture. From this perspective, it can be concluded that international student exchanges have positively influenced mutual perceptions, emphasizing the need to further support and develop such programs (Keogh and Russel-Roberts, 2009). In this sense, it is thought that examining the physical activity and leisure time benefits of Turkish students in Poland and comparing their current situation with the students in their home countries can provide important data to researchers and institutions working in this field. Developments in technology and the economy have provided more time and opportunities for people to participate in leisure and recreational activities. "Recreation" is defined as all active or passive physical, mental, spiritual, and social activities that people perform in their free time that are carried out based on individual satisfaction and voluntariness, which cannot be transferred to other individuals and revitalize people and give them happiness (O'Sullivan, 2006). The way we spend our free time can lead to positive mental and physical benefits. Recreation plays a key role in social life due to its impact on physical and psychological well-being. Therefore, understanding the current recreational activities and preferences of young people, who represent the future of society, is crucial to ensuring their physical and mental health (Collins, 2011). Engaging in physical activities is one such beneficial opportunity. Participation in social activities helps individuals develop friendship,

leadership, and social skills. Engaging in physical activities can also teach self-control, respect for others, and adherence to rules. Moreover, such activities foster a positive outlook on challenges, encourage a healthy and balanced lifestyle, and promote structured, energetic engagement with daily tasks. Physical activities contribute to social awareness, teamwork, and self-expression within society. While leisure time offers numerous benefits, these can be viewed from various perspectives, including physiological, psychological, social, and economic aspects. The gathered data is valuable for guiding individuals to spend their leisure time more effectively and healthily (Pressman et al., 2009). This study, therefore, aims to compare the physical activity and leisure benefits experienced by Turkish and Polish students participating in the Erasmus program in Poland.

## 2. Methods

### 2.1. Research model

This study aims to examine the physical activity and leisure benefits of Turkish and Polish students participating in the ESEP in Poland comparatively. This study employs a general survey model, which is one of the descriptive methods. In this study, the descriptive method is used to comprehensively and rigorously describe a given situation. Survey studies are quantitative investigations conducted to reveal the predetermined characteristics of a group (Zuckerman and Gal-Oz, 2014).

### 2.2. Population and sample of the study

The population of the study consists of Polish students continuing their education in different cities of Poland during the fall semester of the 2022-2023 academic year, as well as undergraduate and graduate students who participated in the ESDP in Poland.

In this context, official records show that 2,612 students took part in the ESEP in Poland during the

2022-2023 academic year. Our study sample includes a total of 60 students, with 30 Turkish and 30 Polish participants, who were studying at different universities in Poland and volunteered for the study (TUA, 2022). The sample was selected using the random sampling method (Zuckerman and Gal-Oz, 2014).

### 2.3. Data collection tools

In addition to the Personal Information Form developed by the researchers, the International Physical Activity Questionnaire (IPAQ) and the Leisure Benefit Scale were used as data collection tools. Explanations about these data collection tools are given in the following section.

**Personal Information Form:** This form includes items related to the independent variables of "gender, age, university of study, place of residence, recreational activity participated in for the first time, recreational activity participated in the most, and weekly recreational activity" developed by the researchers to collect information about the participants.

**IPAQ:** The physical activity status of the participants was determined using the IPAQ. In this study, the short form of the questionnaire, which can be self-administered and includes the "last seven days" in the assessment of physical activity level, was used. This short form consists of seven items and provides information to the researchers about sitting, walking, moderate or vigorous activities, and time spent in vigorous activities. The score calculations for the total and sub-domains of the short form are given below.

- Walking MET-min/week=  $3.3 * \text{Minutes of Walking} * \text{Number of Walking Days}$
- Moderate Intensity MET-min/week=  $4.0 * \text{Minutes of Moderate Intensity Activity} * \text{Number of Days of Moderate Intensity Activity}$
- Vigorous MET-min/week=  $8.0 * \text{Minutes of Vigorous Activity} * \text{Number of Days of Vigorous Activity}$
- Total, MET-min/week= (Walking + Moderate + Severe + Sitting) MET-Min/Week

The sitting score (sedentary behavior level) is calculated separately. In the evaluation of all activities, it is taken as a criterion that each activity is performed for at least 10 minutes at a time. A score is obtained as "MET-minutes/week" by multiplying minutes, days, and metabolic equivalents (METs), which is the amount of oxygen consumed while sitting at rest. In the calculation of the walking score, walking time (minutes) was multiplied by 3.3 METs. In the calculation, a value of 4 METs was used for moderately vigorous activity and 8 METs for vigorous activity.

- a. Low level: below 600 METs-min/week.
- b. Moderate: between 600-3000 METs-min/week.
- c. High level: over 3000 METs-min/week.

**Leisure Benefit Scale:** In this study, the Leisure Benefit Scale developed by Ho (2008) was used to measure the participants' leisure time benefits. There are 24 items in total on this scale. The Cronbach's alpha range in these scales is between 0.83 and 0.89. Moreover, the consistency in the whole LBS is 0.903, as measured by Cronbach's alpha.

Participants provided responses using a 5-point Likert scale, where 1 indicated "Strongly Disagree" and 5 indicated "Strongly Agree," with total scores ranging from a minimum of 25 to a maximum of 125. The Leisure Benefit Scale comprises three subscales: Physical benefits (7 items), Psychological benefits (8 items), and Social benefits (9 items). Items 1-7 assess physical benefits, items 8-15 measure psychological benefits, and items 16-24 pertain to social benefits.

### 2.4. Data collection and analysis

To collect data for this study, both face-to-face and electronic questionnaires (e-surveys) were utilized as quantitative data collection methods. Data from the scales were analyzed using SPSS 24 statistical software. Because the variables did not follow a normal distribution, nonparametric analysis methods were used to compare the participants' demographic information and scale mean scores. Specifically, the Mann-Whitney U test was applied for comparisons between two independent samples, and the Kruskal-Wallis H test was used for comparisons involving multiple groups. A descriptive statistics table for the variables was also generated. The significance level was set at 0.05. In cases where a significant difference was found between groups, the One-Way ANOVA Tamhane's T2 test was performed as a post hoc test to identify which groups differed.

### 2.5. Scope and limitations of the study

The limitations of the study are that the population number is not known exactly, and the study was applied to a limited number of undergraduate and graduate students continuing their education in Polish Universities and undergraduate and graduate students participating in the ESEP. Apart from this, it can be said that another limitation of the study is that the data collected for the study was only conducted in Poland due to limited factors such as time and cost. Therefore, it is not possible to generalize the results of the study to Poland or Turkey.

## 3. Results and discussion

Results concisely and reasonably summarize the findings in the form of text, tables, and figures arranged in a logical and internally self-consistent manner. The number of tables and figures should be limited to those needed to confirm or refute the

thesis. Data given in graphs and tables should not be automatically repeated in the text. This section may be divided by subheadings.

In this study, which comparatively examines whether the data on the Physical Activity and Leisure Benefits of thirty Turkish and thirty Polish students studying at different universities in Poland and who voluntarily participated in the study vary in the context of demographic characteristics, the findings of the analysis of the data obtained from the participants actively studying in the 2022-2023 academic year through an online questionnaire and the solution of the research problem are presented below as sub-headings.

**3.1. Findings on demographic characteristics of participants**

This section presents findings related to the participants' gender, age, place of residence, recreational activities they participated in for the first time, their most frequently engaged recreational activities, weekly recreational activity status, and their happiness when participating in such activities.

An analysis of the demographic data shows that 58.3% (N=35) of the participants were female, while 48.7% (N=25) were male. Among the participants, 38.3% (N=18) were aged 18-22, 28.3% (N=28) were aged 23-24, and 23.3% (N=14) were aged 25 and over. Regarding their place of residence, 38.3% (N=23) lived with their families, 28.3% (N=17) lived in dormitories, 15% (N=9) lived with friends, and 18.3% (N=11) lived in their own homes. When asked about the types of recreational activities, 31.7%

(N=19) reported engaging in sports activities, 16.6% (N=10) in artistic activities, 26.7% (N=16) in cultural activities, and 25% (N=15) in tourism activities. Additionally, 41.7% (N=25) mostly participated in sports activities, 21.7% (N=13) in artistic activities, 6.7% (N=4) in cultural activities, and 30% (N=18) in tourism activities. In terms of weekly participation in recreational activities, 28.3% (N=17) participated for 1 hour, 18.3% (N=11) for 2 hours, 11% (N=7) for 3 hours, 10% (N=6) for 4 hours, 5% (N=3) for 5 hours, 10% (N=6) for 6 hours, and 16.7% (N=10) for 7 hours or more. When asked about their happiness while participating in recreational activities, 96.7% (N=58) reported being happy, while 3.3% (N=2) did not.

Regarding total physical activity levels, 3.3% (N=2) of the participants were not physically active, 33.4% (N=8) had low physical activity levels, and 83.3% (N=50) had adequate physical activity levels.

Analysis of Table 2 shows that the mean weekly total energy expenditure scores of the participants, as calculated according to the NFAA (National Physical Activity Assessment), ranged from a maximum of 38,130 METs-min/week to a minimum of 297 METs-min/week. Vigorous physical activity and sitting times constituted a significant portion of the total physical activity score as measured by the IFAA (International Physical Activity Assessment).

When Table 3 is examined, it is determined that the levels of physical benefits, psychological benefits, and social benefits, which are the subscales of physical activity and leisure benefits, do not differ significantly according to gender (p>0.05).

**Table 2:** Physical activity levels obtained from the IPAQ

Type of physical activity	IPAQ score		Mean±SS
	Max	Min	
Total physical activity (MET-min/week)	38130	297	7128.44±5982.59
Vigorous physical activity (MET-min/week)	19200	480	3640.00±4040.62
Moderate to vigorous physical activity (MET-min/week)	8400	240	1344.74±1660.07
Walking (MET-min/week)	8000	99	1707.99±1553.34
Sitting time (min)	12600	315	4612.50±2617.07

SS: Standard deviation

**Table 3:** Mann-Whitney-U test analysis results of physical activity and leisure benefit levels of Turkish and Polish students participating in the Erasmus program by gender

Scale and subscales	Gender	N	Mean±SS	Z-score	P-value
Total physical activity score	Female	35	2.80±0.47	-0.093	p=0.926 ≥0.5
	Male	25	2.80±0.50		
Physical benefits	Female	35	31.37±5.46	-0.327	p=0.743 ≥0.5
	Male	25	31.16±6.12		
Psychological benefits	Female	35	34.80±6.36	-0.465	p=0.642 ≥0.5
	Male	25	34.80±7.74		
Social benefits	Female	35	37.08±8.15	-0.610	p=0.542 ≥0.5
	Male	25	37.56±9.23		

N: Sample size; SS: Standard deviation

When Table 4 is examined, it is determined that the participants' physical activity and leisure benefit subscales of physical benefits, psychological benefits, and social benefits do not differ significantly according to age (p>0.05).

When Table 5 is examined, it is determined that the levels of physical benefits, psychological benefits, and social benefits, which are the subscales of physical activity and leisure benefits, do not differ

significantly according to the place of residence (p>0.05).

When Table 6 is examined, it is observed that the participants' leisure benefit sub-scales of physical benefits, psychological benefits, and social benefits did not show a significant difference according to the recreational activities they participated in for the first time, while a significant difference was found between the total physical activity score (p<0.05).



**Table 4:** Kruskal-Wallis H test analysis results of physical activity and leisure benefit levels of Turkish and Polish students participating in the Erasmus program by age

Scale and subscales	Age	N	Mean±SS	P-value
Total physical activity score	18 to 22 years old	18	2.61±0.69	p=0.259≥0.5
	23 to 24 years old	28	2.89±0.31	
	25 years and older	14	2.86±0.36	
Physical benefits	18 to 22 years old	18	30.88±3.80	p=0.317≥0.5
	23 to 24 years old	28	31.07±7.26	
	25 years and older	14	32.21±4.22	
Psychological benefits	18 to 22 years old	18	33.61±5.28	p=0.245≥0.5
	23 to 24 years old	28	34.92±8.42	
	25 years and older	14	36.07±5.39	
Social benefits	18 to 22 years old	18	35.33±7.67	p=0.156≥0.5
	23 to 24 years old	28	38.14±9.71	
	25 years and older	14	38.07±7.13	

N: Sample size; SS: Standard deviation

**Table 5:** Kruskal-Wallis H test analysis results of physical activity and leisure benefit levels of Turkish and Polish Students participating in the Erasmus program according to place of residence

Scale and subscales	Place of residence	N	Mean±SS	P-value
Total physical activity score	Family	23	2.83±0.491	p=0.676≥0.5
	Dormitory	17	2.88±0.332	
	With my friend(s)	9	2.67±0.707	
	My own house	11	2.73±0.467	
Physical benefits	Family	23	30.34±8.36	p=0.067≥0.5
	Dormitory	17	30.23±3.34	
	With my friend(s)	9	33.00±2.06	
	My own house	11	33.45±2.16	
Psychological benefits	Family	23	33.52±9.73	p=0.786≥0.5
	Dormitory	17	34.76±4.69	
	With my friend(s)	9	36.55±3.64	
	My own house	11	36.09±4.34	
Social benefits	Family	23	36.13±11.18	p=0.357≥0.5
	Dormitory	17	35.76±7.54	
	With my friend(s)	9	40.77±3.89	
	My own house	11	39.18±5.54	

N: Sample size; SS: Standard deviation

**Table 6:** Kruskal-Wallis H test analysis results of physical activity and leisure benefit levels of Turkish and Polish students participating in the Erasmus program according to recreational activities participated for the first time

Scale and subscales	Recreational activity participated in for the first time	N	Mean±SS	P-value	Differences originated from group
Total physical activity score	Sporting activity (running, climbing, hiking, participating in or watching competitions, etc.)	19	2.95±0.22	0.012*	1>3 p=0.012≤ 0.05
	Artistic activity (Concert, painting exhibition, art gallery, movie theater, etc.)	10	2.40±0.69		
	Cultural activities (Museum, theater, etc.)	16	2.94±0.25		
	Tourism Activity (Sightseeing tour, vacation, etc.)	15	2.73±0.59		
Physical benefits	Sporting activity (running, climbing, hiking, participating in or watching competitions, etc.)	19	32.05±6.55	0.139	p=0.139≥ 0.5
	Artistic Activity (Concert, painting exhibition, art gallery, movie theater, etc.)	10	32.70±2.58		
	Cultural activities (Museum, theater, etc.)	16	30.68±7.11		
	Tourism Activity (Sightseeing tour, vacation, etc.)	15	30.00±4.34		
Psychological benefits	Sporting activity (running, climbing, hiking, participating in or watching competitions, etc.)	19	35.84±7.64	0.507	p=0.507≥ 0.5
	Artistic activity (Concert, painting exhibition, art gallery, movie theater, etc.)	10	35.10±4.95		
	Cultural activities (Museum, theater, etc.)	16	34.12±8.57		
	Tourism activity (Sightseeing tour, vacation, etc.)	15	34.00±5.37		
Social benefits	Sporting activity (running, climbing, hiking, participating in or watching competitions, etc.)	19	38.31±9.29	0.480	p=0.480≥ 0.5
	Artistic activity (Concert, painting exhibition, art gallery, movie theater, etc.)	10	39.20±5.76		
	Cultural activities (Museum, theater, etc.)	16	36.50±10.80		
	Tourism activity (Sightseeing tour, vacation, etc.)	15	35.53±6.51		

N: Sample size; SS: Standard deviation; \*: Statistically significant difference at the 5% significance level

In the One-Way ANOVA Tamhane's T2 test analysis, which was performed to identify the differences between activity groups, it was found that the total physical activity scores of students participating in sports activities were significantly higher than those of students engaged in cultural activities.

An examination of [Table 7](#) shows that the levels of physical, psychological, and social benefits, which are subscales of physical activity and leisure benefits, did not differ significantly based on the type of recreational activity that participants engaged in the most ( $p>0.05$ ).

**Table 7:** Kruskal-Wallis H test analysis results of the suitability for physical activity and leisure benefit of Turkish and Polish students participating in the Erasmus program according to the recreational activities they most frequently participated in

Scale and subscales	Most frequently participated in recreational activity	N	Mean±SS	P-value
Total physical activity score	Sports activities (Running, climbing, hiking, participating in or watching competitions, etc.)	25	2.84±0.374	p=0.390≥0.5
	Artistic activity (Concert, painting exhibition, art gallery, movie theater, etc.)	13	2.62±0.650	
	Cultural activities (Museum, theater, etc.)	4	3.00±0.00	
	Tourism activity (Sightseeing tour, vacation, etc.)	18	2.83±0.514	
Physical benefits	Sporting activity (running, climbing, hiking, participating in or watching competitions, etc.)	25	31.60±5.90	p=0.633≥0.5
	Artistic activity (Concert, painting exhibition, art gallery, movie theater, etc.)	13	32.38±3.73	
	Cultural activities (Museum, theater, etc.)	4	26.25±13.25	
	Tourism activity (Sightseeing tour, vacation, etc.)	18	31.16±3.95	
Psychological benefits	Sporting activity (running, climbing, hiking, participating in or watching competitions, etc.)	25	35.68±7.17	p=0.715≥0.5
	Artistic activity (Concert, painting exhibition, art gallery, movie theater, etc.)	13	35.07±5.61	
	Cultural activities (Museum, theater, etc.)	4	29.00±15.09	
	Tourism activity (Sightseeing tour, vacation, etc.)	18	34.66±4.62	
Social benefits	Sporting activity (running, climbing, hiking, participating in or watching competitions, etc.)	25	37.64±9.05	p=0.931≥0.5
	Artistic activity (Concert, painting exhibition, art gallery, movie theater, etc.)	13	37.69±7.79	
	Cultural activities (Museum, theater, etc.)	4	32.75±16.97	
	Tourism activity (Sightseeing tour, vacation, etc.)	18	37.50±6.22	

N: Sample size; SS: Standard deviation

When Table 8 is examined, it is determined that the levels of physical benefits, psychological benefits, and social benefits, which are the subscales of

physical activity and leisure benefits, do not differ significantly according to the duration of weekly hours of participation ( $p>0.05$ ).

**Table 8:** Kruskal-Wallis H test analysis results of physical activity and leisure benefit levels of Turkish and Polish students participating in the Erasmus program according to the duration of participation in weekly hours

Scale subscale	Duration of weekly hourly participation in recreational activities	N	Mean±SS	P-value
Total physical activity score	1 hour	17	2.76±0.43	p=0.180≥0.5
	2 hours	11	2.45±0.82	
	3 hours	7	2.86±0.37	
	4 hours	6	3.00±0.00	
	5 hours	3	2.67±0.57	
	6 hours	6	3.00±0.00	
	7 hours and above	10	3.00±0.00	
Physical benefits	1 hour	17	30.41±7.00	p=0.136≥0.5
	2 hours	11	31.81±4.14	
	3 hours	7	28.85±2.79	
	4 hours	6	29.33±11.05	
	5 hours	3	34.00±1.00	
	6 hours	6	32.50±3.01	
	7 hours and above	10	33.50±3.24	
Psychological benefits	1 hour	17	33.23±7.98	p=0.738≥0.5
	2 hours	11	35.00±6.09	
	3 hours	7	34.00±4.16	
	4 hours	6	32.50±12.51	
	5 hours	3	36.33±4.04	
	6 hours	6	37.33±3.50	
	7 hours and above	10	37.20±5.39	
Social benefits	1 hour	17	35.47±9.36	p=0.535≥0.5
	2 hours	11	38.63±7.47	
	3 hours	7	35.57±6.45	
	4 hours	6	34.33±13.00	
	5 hours	3	40.66±4.50	
	6 hours	6	41.33±4.22	
	7 hours and above	10	38.40±9.60	

N: Sample size; SS: Standard deviation

When Table 9 is examined, it is determined that the levels of physical benefits, psychological benefits, and social benefits, which are the subscales of physical activity and leisure benefits, do not differ

significantly according to the participants' state of being happy when they participate in recreational activities ( $p>0.05$ ).

**Table 9:** Mann-Whitney-U test analysis results of physical activity and leisure benefit levels of Turkish and Polish students participating in the Erasmus program according to being happy when participating in recreational activities

Scale and subscales	Happiness when participating in a recreational activity	N	Mean±SS	Z-score	P-value
Total physical activity score	Yes	58	2.81±0.476	-1.209	p=0.227≥0.5
	No	2	2.50±0.707		
Physical benefits	Yes	58	31.27±5.79	-0.600	p=0.549≥0.5
	No	2	31.50±2.12		
Psychological benefits	Yes	58	34.81±7.01	-0.596	p=0.551≥0.5
	No	2	34.50±3.53		
Social benefits	Yes	58	37.27±8.68	-0.481	p=0.630≥0.5
	No	2	37.50±3.53		

N: Sample size; SS: Standard deviation

According to the correlation analysis in Table 10, a moderate positive relationship was found between the subscales of leisure benefits (physical benefit  $r=0.875$ , psychological benefit  $r=0.849$ , and social

benefit  $r=0.821$ ). This relationship is statistically significant ( $p<0.05$ ). There was no correlation between the subscales of leisure benefits and physical activity.

**Table 10:** Correlation test analysis results between physical activity score and leisure benefit levels of Turkish and Polish students participating in the Erasmus program

Scales and subscales			Total physical activity score	Physical benefits	Psychological benefits	Social benefits
IPAQ	Total physical activity score	r	1	0.135	0.110	0.015
		p		0.305	0.402	0.911
Leisure benefit scale	Physical benefits	r		1	0.875**	0.821**
		p			0.000	0.000
	Psychological benefits	r			1	0.849**
		p				0.000
	Social benefits	r				1
		p				

r: Correlation coefficient; p: p-value; \*\*: statistically significant correlation at the  $p < 0.01$

This study was carried out to examine the physical activity and leisure time benefits of Turkish and Polish students participating in the European Union ESDP. The data obtained within the scope of the study were collected using the "National Physical Activity Questionnaire" and "Leisure Time Benefits Questionnaire." These data collection tools were administered electronically to a total of 60 students, including 30 Turkish and 30 Polish students living in Poland, who voluntarily agreed to participate in the study and were included in the Erasmus Student Exchange Program in Poland in 2022-2023. While 58.3% of the participants were women, most of the participants (38.3%) were between the ages of 18-22. As a result of the interviews conducted through data collection tools within the scope of the study, it is understood that most of the participants (31.7%) participated in sportive activities for the first time as a recreational activity. Participants also stated that the recreational activity they participated in the most was sportive activities (41.7%). These findings obtained from the research support the results of the studies conducted in the literature. In a study, it was reported that physical inactivity leads to the death of 5.3 million people worldwide and causes the cost of the health system to fall to 53.8 billion dollars a year. In this sense, the realization and dissemination of the current study are of great importance (Ginis et al., 2021). The study also explored the happiness of participants who engaged in recreational activities. Findings indicated that the vast majority (96.7%) of participants reported being happy during these activities. This aligns with findings from other research (Eskiler et al., 2019), which suggested that recreational activities meet individuals' expectations and subsequently enhance their happiness and satisfaction levels. This increased satisfaction contributes to personal well-being. Therefore, this study supports previous findings in the literature.

The results show that participating in recreational activities helps individuals fulfill their expectations and promotes happiness. However, it was also found that the benefits gained from recreational activities—such as physical, psychological, and social benefits—did not vary significantly based on gender, age, or place of residence. In other words, participant characteristics

like gender, age, and residence did not influence the levels of these benefits.

Additionally, the study examined participants' engagement in recreational activities based on hours spent. Findings revealed that 28.3% (N=17) of participants participated for 1 hour, 18.3% (N=11) for 2 hours, 11% (N=7) for 3 hours, 10% (N=6) for 4 hours, 5% (N=3) for 5 hours, 10% (N=6) for 6 hours, and 16.7% (N=10) for 7 hours or more. Regular participation in recreational activities is believed to enhance individuals' psychological well-being. Since those with better psychological health contribute to the peace and cohesion of their communities, their overall life satisfaction is also likely to improve (Dumludag and Frey, 2019; Diener et al., 2013).

For this reason, guiding individuals in a way that will ensure their regular and healthy participation in recreational activities will also lead to positive outcomes in terms of the welfare of society.

The findings of the study show that cultural, geographical, and educational factors do not affect the participation of Turkish and Polish students in physical activity and leisure time activities. The current study is important in this respect. It shows that the participants are generally happy to participate in recreational and physical activities and that they derive physical, psychological, and social benefits from these activities. Therefore, it draws attention to the potential to improve the quality of life of individuals who regularly participate in physical activity and recreational activities. The benefits of these activities have been reported in many studies. In one study on this topic, participants reported greater enjoyment and satisfaction from physical activities, especially outdoor activities, and expressed greater intention to repeat the activity later (Thompson Coon et al., 2011). In another study, it was observed that walking is an important part of daily life in physical activity habits in Turkey and Poland (Bednerek et al., 2016). Based on these examples, these situations can be considered when planning physical activity and leisure time activities in future exchange programs. As a comparative quantitative study examining the program phase achievements of Turkish and Polish students benefiting from the Erasmus student exchange program, it differs from similar studies conducted in

Turkey and contributes to the literature in this context. This research also has some limitations. First, the study was conducted only in a specific area and country, and the findings were about participation in physical activity and leisure time activities. In future studies, experimental studies can be conducted on how intercultural integration affects individuals by planning recreational and physical activities that will allow students to interact with different cultures and gain new perspectives. Based on these recommendations, more in-depth studies can be conducted on strategies to increase Turkey's and Poland's participation in international education programs such as the Erasmus program and student exchanges. Furthermore, extended research could be conducted on how such comparative analyses influence educational policies and international relations.

#### 4. Conclusion

Turkey and Poland share a long history of relations in political, economic, educational, and scientific fields, contributing to both countries in various ways. Intercultural interaction and communication involve bringing together individuals from different cultural backgrounds to exchange knowledge, ideas, and experiences. This interaction enhances intercultural understanding, reduces prejudice, and has the potential to foster peace and cooperation among different communities. A comparison between the two countries revealed no significant difference in the level of physical activity and leisure activities among university students studying in Poland and Turkey, regardless of their nationality.

In studies at the intercultural level, it is recommended to first identify common traits, cultural differences, and lifestyle patterns and then develop models to create a shared space for communication and consensus.

This study found that physical activity habits and leisure time usage did not differ by culture, and it examined the current habits and situations related to these activities. The findings can help evaluate students' physical activity and leisure time engagement, identify and improve activities, and offer valuable insights to planners on students' activity preferences, thereby aiding in the planning and development process.

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#### Compliance with ethical standards

#### Ethical considerations

Informed consent was obtained from all subjects involved in the study. This research was approved by

the Kocaeli University Social and Humanities Ethics Committee (Date: 12.02.2024, Protocol No: 549244). The research was conducted in accordance with the Declaration of Helsinki.

#### Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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