Leisure Activity Participation, Exercise Level and Perceived Freedom in University Students (Akdeniz University Example)

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ABSTRACT

One of the main topics handled in leisure literature is "The benefits obtained by leisure activity participation". Besides physical health benefits, positive emotion outcomes are inquired very often in studies. Perceived freedom in leisure is one of the positive outcomes mentioned by researchers in leisure sciences. The aim of this study is to examine recreative activity participation, leisure time exercise participation and perceived freedom of university students that attended to elective physical education courses. The population of the study consists of students attending to elevtive physical education courses, meanwhile the sample of the study consisted of 500 voluntary students. As data collection tool "Godin Leisure Time Exercise Questionnaire" and "Perceived Freedom in Leisure" scales were used. In data analysis, non-parametric correlation and hypothesis tests were used as the data were not normally distributed. According to the results

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leisure time exercise levels and perceived freedom scores showed a positive significant correlation (r=0.234, p<0.05). This shows that the level of exercise in leisure time increases the perception of freedom obtained from leisure activities. Men participants showed higher level of perceived freedom when compared with women (p<0.05). Men participants were also found to be more actively participating to exercise than women (χ^2=22,064, p<0.05). The participants that perceived their economic status better than the other group showed higher percentage of active participation (χ^2=8,472, p<0.05). For future research, the positive emotion effects of leisure activity participation could be studied in different study groups such as disabled participants, elderly people, recovering patients, immigrants and other different groups.

INTRODUCTION

There is a considerable body of knowledge concerning benefits of leisure participation and positive perceptions gained by this participation in literature. Subjective evaluations concerning the leisure experiences of individuals were given emphasis in leisure research and this resulted with the attention of academics in the concept of "perceived freedom in leisure". The concept arises from the understanding of leisure as something free which individuals perceive as voluntary, without any coercion and obligation (Unger and Kernan, 1983). Some researchers such as Neulinger (1981) went further from this definition and defined perceived freedom as a defining criteron for leisure (Siegenthaler and O'Dell, 2000). Iso-Ahola (1980) defined freedom as the critical regulator in determining a person's leisure involvement (Munson, 1993). Ellis and Witt (1986) stated that perceived freedom was the central indicator of leisure functioning and attribution theory was the main conceptual basis for understanding perceived freedom in leisure and Leisure Diagnostic Battery developed by the authors to measure perceived freedom. Perceived freedom was a construct consisting of five scales named as "Perceived Leisure Control", "Perceived Leisure Competence", "Leisure Needs", "Depth of Involvement in Leisure" and "Playfulness" (Ellis and Witt, 1984). According to Ellis and Witt (1994) individuals with high levels of perceived freedom were expected to feel

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competent, able to control what happens before and during leisure participation and also the outcomes of the participation (Poulsen et al., 2008).

LITERATURE REVIEW

The concept of perceived freedom was inquired in different sample groups in relation with different variables in the leisure literature. In a study conducted to adults participating taekwondo as a leisure activity, the relationships between depression, physical illness, perceived health, intrinsic motivation, perceived freedom, friendship and companionship were inquired and perceived freedom showed positive correlation with perceived health and intrinsic motivation but on the contrary negative correlation with depression and physical illness (Iso-Ahola and Park, 1996).

Family relationships were also inquired related with leisure. In a study examining dyadic relationships in shaping perceptions of leisure, leisure attitude, satisfaction and perceived freedom were measured and although the interests of the two people in the family may vary, they enjoyed the leisure (Siegenthaler and O'Dell, 2000).

In a study examining leisure motivation, leisure satisfaction and perceived freedom in leisure, the participants were young offenders receiving treatment in a psychiatric hospital. Perceived freedom scores showed negative correlations with leisure motivation and satisfaction expressing that, a lack of freedom in leisure prevents leisure satisfaction and motivation (Munchua et al., 2003).

Lee and McCormick (2004) tried to detect factors explaining the subjective well-being of people with spinal cord injury and perceived freedom was among the independent variables in the study. But frequency of recreation participation, free time boredom, income and age were found sigfinicantly contributing to well-being.

In a study by Janke et al. (2011), the effect of life experiences on their leisure perceptions were examined in adult people and life structure of adults was found to be affecting their perceptions of freedom in leisure and life events predicted their leisure attitudes.

Konstam and Lehmann (2011) compared leisure competence, leisure control, leisure enjoyment and work engagement in emerging adults who are career decisive and career indecisive. Career decisive partitipants obtained significantly higher scores in all perceived freedom concepts and work engagement.

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In a sample of Turkish female park recreation participants, the impact of perceived freedom and leisure satisfaction on life satisfaction was inquired and a positive contribution was obtained from some subscales of leisure satisfaction but no impact was found from perceived freedom in leisure (Agyar, 2014). In a study conducted to Chinese women, significant relationship was obtained for leisure satisfaction and perception of their freedom in accessing leisure (Lee and Zhang, 2010).

Park recreation participants were examined in another study and life satisfaction, leisure satisfaction and perceived freedom all showed significant and positive correlations between each other (Yerlisu Lapa, 2013).

An experimental study was conducted to adolescents with mild intellectual disabilities and the effect of leisure education on perceived freedom was inquired. Outcomes gave the evidence of a positive effect of leisure education programme containing sport activities on the perceived freedom of the adolescents with mental disabilities (Ertüzün, 2015).

In a study applied to prisoners, the relationship between leisure functioning and rehabilitation was inquired and perceived freedom and intrinsic motivation showed positive results related with rehabilitation results (Link and Williams, 2017).

Besides the other populations many researchers perferred to make study on university students. Among these Kim (2010) studied the relationship between perceived freedom, self-efficacy, intrinsic satisfaction, emotion, social relationship and leisure knowledge in university students. According to the results, perceived freedom showed positive correlations with all the mentioned variables.

Wu, Liu and Wang (2010) worked with Taiwanese students and obtained positive and significant relationships between perceived freedom and leisure participation levels of the students.

Agyar (2013) analyzed life satisfaction, perceived freedom and self-esteem of 500 physical education and sport students and found positive and significant relationship between life satisfation, self-esteem and perceived freedom in leisure. Life satisfaction was found to be higher in the group with a higher level of leisure participation.

The meaning of leisure and perceived freedom was inquired in university students according to demographic variables. The results showed that in perceived freedom, gender and age groups showed similar results, meanwhile women scored higher than men in active-passive partipation and goal-orientation subscales of the meaning of leisure (Harmandar Demirel, Demirel and Serdar, 2017).

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University students were inquired about their internet addiction, perceived freedom in leisure, leisure boredom and sensation seeking and perceived freedom leves yielded negative and significant relations with internet addiction (Kara, 2019).

METHOD

This study is designed with a screening model as a descriptive and cross-sectional study.

Population and Sample

The population of the study consists of students attending to elective physical education courses in Akdeniz University Campus. As the number of population was not exactly known, the sample formula ($n=t^2pq/d^2$) was used (Sümbüloğlu & Sümbüloğlu, 1995) and the convenient sample size is obtained as 385. In order to prevent any data loss, a sample of 500 voluntary participants were taken to the study. Mean age of participants was 20.16±2.43. Demographic information about participants were presented in Table 1.

Table 1. Demographic Information of the Participants

Demographic Information	Categories	n	%
Gender	Men	155	31.0
	Women	345	69.0
	Total	500	100.0
Place of Birth	City	371	74.2
	Town	105	21.0
	Village	24	4.8
	Total	500	100.0
Economical Status	Very Low	1	0.2
	Low	18	3.6
	Middle	157	31.4
	High	296	59.2
	Very High	28	5.6
	Total	500	100.0

Data Collection Tool

Data collection tool of the study was a questionnaire consisting of four parts. In the first part demographic information, in the second part participation in recreational activities was inquired. The third part of the data collection tool was"Leisure-time Physical Activity Questionnaire" developed by Godin (2011) and adapted to Turkish language by Yerlisu Lapa and Yağar (2015). The scale consists of questions concerning exercise performed by participants and the a total of weekly leisure activity score is calculated according the formula

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developed by Godin (2011): Weekly leisure-time activity= [(9 x strenuous) + (5 x moderate) + (3 x mild)]. According to this calculation 24 units or more obtained from this formula means active participation, scores between 14 to 23 units means moderately active participation and less than 14 units means insufficiently active participation in physical activity.The fourth part of the data collection tool consisted of "Perceived Freedom in Leisure" scale developed by Witt and Ellis (1985) and adapted to Turkish by Yerlisu Lapa and Ağyar (2011). The scale was further validated by Yerlisu Lapa and Tercan Kaas (2017) and the scale was confirmed as a scale with one dimension and 25 items. Cronbach alpha reliability coefficient was found to be α=0.93. The goodness of fit indexes of confirmatory factor analysis were ($\chi 2$ /df=1.42), AGFI=0.85, GFI=0.88, NFI=0.84, TLI=0.94, CFI=0.94 ve RMSEA=.047. The Cronbach alpha coefficient for this study was α=0.918.

Statistical Analysis

In statistical analysis, Kolmogorov-Smirnov statistical test was applied and kurtosis and skewness coefficients were examined. As the distribution of the variables were not normal, non-parametrical hypothesis tests and Spearman correlation analysis were performed.

FINDINGS

In the findings section of the study, findings concerning participation to recreation activities, leisure time physical activity and perceived freedom in leisure are given. In Table 2 information concerning recreational activity participation of students are presented.

Table 2. Information AboutRecreational Activity Participation for Students

		n	%
With Whom You Participate in Recreational Activities Mostly?	Alone	93	18.6
	With my Friends	318	63.6
	With my Family	79	15.8
	Other	10	2.0
	Total	500	100.0
Weekly Duration of Participation in Recreational Activities	1-5 hours	204	40.8
	6-10 hours	163	32.6
	11-15 hours	72	14.4
	16 and over	61	12.2
	Total	500	100.0
Weekly Frequency of Participation in Recreational Activities	1-2 times	252	50.4
	3-4 times	184	36.8
	5-6 times	49	9.8

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	7 times and over	15	3.0
	Total	500	100.0
Participation Preferences in Sport Activities	Active	195	39.0
	Passive	305	61.0
	Total	500	100.0
Participation Preferences in Social Activities	Active	413	82.6
	Passive	87	17.4
	Total	500	100.0
Participation Preferences in Cultural Activities	Active	222	44.4
	Passive	278	55.6
	Total	500	100.0

According to Table 2, participants prefer to participate in recreational activities mostly with their friends (63.6%). Their weekly duration of participation is 1-5 hours (40.8%) and frequency of participation is 1-2 times (%50.4). Participants prefer to participate in sport and cultural activities passively (39.0% and 55.6% respectively) but social activities actively (82.6%).

Table 3. Leisure Time Physical Activity Levels of Participants

	Frequency	**Percent**	**Valid Percent**	**Cumulative Percant**
Insufficiently active participants	156	31.2	31.2	31.2
Moderately active participants	124	24.8	24.8	56.0
Active participants	220	44.0	44.0	100.0
TOTAL	500	100.0	100.0	

According to Table 3participants were evaluated with respect to the scores they received from Godin's Leisure Time Physical Activity scale. This evaluation showed that 44.0% of the participants were physically active participants.

Table 4. The frequency of Participating in a Regular Physical Activity Providing A Rapid Heartrate During the Last 6 Months

	Frequency	**Percent**	**Valid Percent**	**Cumulative Percant**
Frequently	69	13.8	13.8	13.8
Sometimes	209	41.8	41.8	55.6
Very seldom/never	222	44.4	44.4	100.0

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TOTAL	500	100.0	100.0	

During the last 6 months the students expressed that mostly they never or very seldom participated in a regular physical activity providing a rapid heartrate (44.4%). Only 13.8% of the students frequently participated in such a physical activity (13.8%).

Table 5. The Mean Scores that Participants Obtained from Perceived Freedom in Leisure Scale

	Mean	**Standard Deviation**
Perceived Freedom in Leisure Scale	3.56	0.51

According to Table 5, the participants received a mean of 3.56 ±0.51 from the perceived freedom in leisure scale which is a Likert-5 type scale.

Table 6. The Correlation Between Leisure Time Physical Activity Level and Perceived Freedom in Leisure Scale

			Leisure Time Physical Activity Level	Perceived Freedom in Leisure
Spearman's rho	Leisure Time Physical Activity Level	Correlation Coefficient	1,000	,234**
		Significance Level	.	,000
		N	500	500
	Perceived Freedom in Leisure	Correlation Coefficient	,234**	1,000
		Significance Level	,000	.
		N	500	500

**. Correlation is significant at the 0.01 level (2-tailed).

The results reported in Table 6 show that there is a positive significant correlation between leisure time physical activity level scores obtained from Godin questionnaire and perceived freedom in leisure ($r=0.234$, $p<0.05$). When the level of physical activity in leisure time increases the feeling of freedom perceived by participants also increase.

Table 7. Comparison of Perceived Freedom in Leisure According to Leisure Time Physical Activity Levels of Participants

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	N	Mean	Std. Deviation	Kruskal Wallis Chi- Square (p value)
Insufficiently active participants	156	3.41	0.45	26.753 (0.000)
Moderately active participants	124	3.59	0.48	
Active participants	220	3.65	0.54	
TOTAL	500	3.51	0.51	

The results presented in Table 7 support the results in Table 6. When perceived freedom in leisure is compared according to the classification of Godin's physical activity scale,the more active participants received higher scores from perceived freedom in leisure scale than the less active participants ($p<0.001$).

Table 8. Comparison of Perceived Freedom in Leisure According to Gender

	N	Mean	Std. Deviation	Z (p value)
Men	155	3.69	0.62	-3.836 (0.000)
Women	345	3.50	0.43	

When the perceived freedom in leisure is compared according to gender, men participants showed a higher level of freedom than women participants ($p<0.001$).

Table 9. Comparison of Leisure Time Physical Activity Levels of Participants According to Gender

			Leisure Time Physical Activity			Total
			Insufficiently Active Participants	Moderately Active Participants	Active Participants	
Gender	**Men**	Count	38	25	92	155
		% in Gender	24,5%	16,1%	59,4%	100,0%
	Women	Count	118	99	128	345
		% in Gender	34,2%	28,7%	37,1%	100,0%
Total		Count	156	124	220	500

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			Leisure Time Physical Activity			Total
			Insufficiently Active Participants	Moderately Active Participants	Active Participants	
Gender	**Men**	Count	38	25	92	155
		% in Gender	24,5%	16,1%	59,4%	100,0%
	Women	Count	118	99	128	345
		% in Gender	34,2%	28,7%	37,1%	100,0%
Total		Count	156	124	220	500
		% in Gender	31,2%	24,8%	44,0%	100,0%

According to the results in Table 9, the percentage of active students among males (59.4%) are higher than that of the females (37.1%), and the percentage of inactive participants among females (34.2%) are higher than that of males (24.5%).(χ^2=22.064, p<0.05).

Table 10. Comparison of Leisure Time Physical Activity Levels of Participants According to Economic Level

			Leisure Time Physical Activity			Total
			Insufficiently Active Participants	Moderately Active Participants	Active Participants	
Perceived Economical Level	**High and very high**	Count	87	88	149	324
		%	26.9%	27.2%	46.0%	100.0%
	Middle, low and very low	Count	69	36	71	176
		%	40.3%	20.5%	40.3%	100.0%
Total		Count	156	124	220	500
		%	31.2%	24.8%	44.0%	100.0%

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The leisure time physical activity of participants was compared according to the perceived economical level of participants. The participants who perceived their economical level high and very high showed higher percentage among active participants (46.0%) than those who perceived their economical level middle and low (40.3%). Meanwhile the percentage of inactive participants was lower in the group with higher economic level (26.9%) than the other group (40.3%). According to the results, the participants with higher level of economical status seems to be physically more active during their leisure time (χ^2=8.472, p<0.05).

Table 11 Comparison of Perceived Freedom in Leisure Levels of Participants According to Economic Level

	N	Mean	Std. Deviation	Z score (p value)
High and very High	324	3.61	0.49	-3.186 (0.001)
Middle, low and very low	176	3.46	0.52	

The perceived freedom of participants was compared according to the perceived economical level of participants. The participants who perceived their economical level high and very high showed higher levels of perceived freedom in leisure (p<0.05).

DISCUSSION AND RESULTS

The aim of this study was to examine recreative activity participation, leisure time exercise participation and perceived freedom of university students that attended to elective physical education courses in Akdeniz University Campus. 500 voluntary students participated in this study with a mean age of 20.16 ± 2.43. According to demographic information 31.0% of participants are men and 69.0% participants were women and the participants were mostly born in cities (74.2%). University students attended to this study stated that they preferred to join activities mostly with friends (63.6%), 1-5 hours a week (40.8%), 1-2 times a week (50.4%).

From "Perceived freedom in Leisure" scale which is a Likert-5 type scale, the mean score obtained was 3.56±0.51. In a study applied to women, who participated in park recreation the mean score was obtained as 4.08±0.58 (Ağyar, 2014). A group of elderly people were inquired about their life experiences and their perceptions of leisure (Janke et al.,

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2011) and the perceived freedom level of these individuals were 3.84±0.47. In a study inquiring perceived freedom in leisure and subjective well-being of individuals with spinal cord injury the mean of perceived freedom was found to be 3.44±0.70 (Lee & McCormick, 2004).

Leisure time physical activity level of students were evaluated according to Godin (2011) formula and 44.0% of the students were classified as active, meanwhile 31.2% students were classified as inactive. The percentage of active students among males (59.4%) were higher than that of the females (37.1%), and the percentage of inactive participants among females (34.2%) were higher than that of males (24.5%). (χ^2=22.064, p<0.05).

Leisure time physical activity scores were correlated with perceived freedom in leisure scores and a positive relationship was obtained (r=0.234, p<0.001). This shows that the more individuals are involved with physical activity the more they perceive the feeling of freedom from their leisure activities. Also it can be stated as vice versa: The more individuals perceive freedom the more they are physically active. In a study by Poulsen, Ziviani & Cuskelly(2007), 10-13 years old boys with different levels of physical co-ordination ability were examined and perceived freedom in leisure was found out to be a significant influencing leisure time activity participation. In another similar study (Poulsen et al., 2008), perceived freedom in leisure showed a positive moderate influence on the level of participation in team sports. The results of a research with a sample of 9-12 years old students showed significant correlation of perceived freedom in leisure and level of physical activity in boys (r=0.38, p<0.05) and girls (r=0. 416, p<0.05) (Livesey et al., 2010).In another study conducted to university students significant results were found in perceived freedom in leisure levels in favour of students participating in regular physical activity (Kara, 2019). In another study measuring the perceived freedom in university students, participants who preferred to participate actively in sport activities received higher mean scores in perceived freedom (Yerlisu Lapa & Ağyar, 2012). According to a study conducted to Taiwanese university students, perceived freedom in leisure and their leisure participation were inquired and results yielded positive relationships between perceived freedom in leisure and leisure participation (Wu, Liu & Wang, 2010).

When the perceived freedom in leisure is compared according to gender, men participants showed a higher level of freedom than women participants (p<0.001).There are studies showing no difference in perceived freedom related with gender. In a study by Yerlisu

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Lapa and Ağyar (2012) measuring perceived freedom in leisure in relation with leisure participation, women and men participants showed similar levels of perceived freedom. In a research byAğyar (2013), life satisfaction, perceived freedom in leisure and self-esteem was inquired in physical education and sport students, no significant difference was obtained according to gender ($p>0.05$). In another study conducted to physical education and sport students women and men participants had similar perceived freedom levels (Çakır, 2019). Also in Harmandar Demirel, Demirel and Serdar (2017) study no significant difference was obtained according to gender. However in a study inquiring about the leisure perceptions and experiences of elderly people, the results supported that there may be a trend for women participants to have more positive feelings of freedom in time (Janke et al., 2011).In another study conducted to university students, significant differences were found with regard to perceived freedom in favour of men participants (Kara, 2019).

Perceived freedom in leisure and leisure time physical activity participation were also compared according to perceived economical status of the students. Both perceived freedom in leisure and level of leisure exercise was found to be higher in students with higher economical status. In another study conducted to physical education and sport students students with higher welfare level showed higher levels of perceived freedom in leisure (Çakır, 2019).

For future research, the positive emotion effects of leisure activity participation and perceived freedomis suggested to be studied in different study groups such as disabled participants, elderly people, recovering patients, immigrants and other socio-economical groups.

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