

## The Relationship Between Perception of Leisure Boredom, Motivation for Participation in Physical Activity and Presenteeism

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### Abstract

The aim of this study was to test the leisure boredom perceptions and predictive power for motivations for participation in physical activity and presenteeism perceptions and analyze the effects among university students. Additionally, a secondary aim was to reveal whether leisure boredom perceptions, physical activity motivation and presenteeism differed according to some variables or not. In line with these aims, a total of 517 students attending different universities in Türkiye and volunteering to participate in the research completed the Leisure Boredom Scale (LBS), Motivation Scale for Participation in Physical Activity (MSPPA) and Presenteeism Scale for Adults (PSA). The data underwent correlation, regression, MANOVA and ANOVA. According to regression analysis, the LBS boredom subscale predicted the PSA work completion and avoiding distraction subscales; while it significantly predicted the MSPPA subscales of "individual reasons" and "lack of reasons". Additionally, the LBS "dissatisfaction" subscale appeared to significantly predict the PSA "work completion" and MSPPA "individual reasons", "environmental reasons" and "lack of reasons" subscales. The research findings identified significant differences according to gender, membership status and physical activity participation variables. In conclusion, the physical activity motivation and presenteeism of university students were identified to be associated with perceived boredom during leisure, and it is understood leisure perceptions positively affect important areas of life (like health and education).

**Keywords:** Leisure boredom, Physical activity, Motivation, Presenteeism

## Serbest Zamanlarda Sıkılma Algısı, Fiziksel Aktivite Katılım Motivasyonu ve Prezenteizm İlişkisi

### Öz

Bu araştırmanın amacı; üniversite öğrencilerinin serbest zamanlarda sıkılma algılarının, fiziksel aktivite katılım motivasyonlarını ve prezenteizm algılarını yordama gücünü test etmek ve etkilerini analiz etmektir. Buna ek olarak, serbest zamanlarda sıkılma algısı, fiziksel aktivite motivasyonu ve prezenteizmin bazı değişkenlere göre farklılık gösterip göstermediğini ortaya koymaktır. Bu amaçlar doğrultusunda, Türkiye'nin farklı üniversitelerinde öğrenim gören ve gönüllü olarak araştırmaya katılan 517 öğrenciye Boş Zamanlarda Sıkılma Algısı Ölçeği (BZSAÖ; Kara, Gürbüz ve Öncü, 2014), Fiziksel Aktiviteye Katılım Motivasyonu Ölçeği (FAKMÖ; Tekkurşun-Demir ve Cicioğlu, 2018) ve Yetişkinler İçin Prezenteizm Ölçeği (YPÖ; Sarıçam ve ark., 2013) uygulanmıştır. Elde edilen verilere korelasyon, regresyon, MANOVA ve ANOVA uygulanmıştır. Regresyon analizlerine göre, BZSAÖ "sıkılma" alt boyutunun YPÖ "iş tamamlama" ve "eğlenceden kaçma" alt boyutlarını; FAKMÖ "bireysel nedenler" ve "nedensizlik" alt boyutlarını anlamlı derecede yordadığı tespit edilmiştir. Bununla birlikte, BZSAÖ "doyumsuzluk" alt boyutunun YPÖ "iş tamamlama"; FAKMÖ "bireysel nedenler", "çevresel nedenler" ve "nedensizlik" alt boyutlarını anlamlı derecede yordadığı görülmüştür. Araştırma bulgularında, cinsiyet, üyelik durumu ve fiziksel aktiviteye katılım değişkenlerine göre anlamlı farklılıklar tespit edilmiştir. Sonuç olarak, üniversite öğrencilerinde fiziksel aktivite motivasyonunun ve prezenteizmin serbest zamanlarda algılanan sıkılma ile ilişkili olduğu tespit edilmekle birlikte, serbest zaman algısının hayatın önemli alanlarına (sağlık ve eğitim gibi) olumlu etki ettiği anlaşılmaktadır.

**Anahtar Kelimeler:** Sıkılma algısı, Fiziksel aktivite, Motivasyon, Prezenteizm

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## INTRODUCTION

The leisure concept, meaning time for oneself involving rewarding and enjoyable experiences away from the routine and stress of daily life (Merelas-Iglesias & Sánchez-Bello, 2019; Serdar et al., 2022), is associated with the leisure activities of individuals and is a very effective factor in increasing psychological well-being levels (Gürkan et al., 2021). In this context, leisure activity may be said to play an important role in topics like distancing from daily problems in the time remaining after a person's tiring work life and coping with physiological and psychological problems (Veal, 2020). Currently, the state of satisfaction as a result of a person not being able to find something to attract their attention or to do on their own is defined as "leisure boredom" (Iso-Ahola & Weissinger, 1990).

The boredom concept may be defined with statements like hesitation, weakness or lethargy (Goldberg et al., 2011) and is a common experience in the daily lives of both students and employed people (Vogel-Walcutt et al., 2012). At the same time, it was stated to be a complicated mood (Xie, 2021), and appears to lead to potential negative outcomes like lack of effective and efficient use of time, satisfaction and innovation preferences (Bench & Lench, 2013). Additionally, the perception of boredom, which makes an individual feel restless, uneasy, and anxious all the time, can be explained as a mood that arises as a result of accepting the negative routine in one's life (Gelbal-Öner & Yerlisu-Lapa, 2022). In this context, there are many studies investigating the correlation between boredom with concepts like leisure boredom and workplace boredom (Doğan et al., 2019; Gür & Kılıçkaya, 2022; Kara & Gürbüz, 2022; Merdan et al., 2022; Sürücü & Yıkılmaz, 2022). It is considered that physical activity is an important tool to reduce the boredom experienced by individuals during leisure (Craike et al., 2010; Kara, 2019).

Within the framework of a healthy lifestyle for individuals, physical activity is important for both social integration and physical well-being (Kargün et al., 2018; Sarol et al., 2022). Additionally, physical activity, the key to a healthy life, appears to be a complementary element from a motivational aspect in terms of increasing a person's self-esteem, becoming more motivated for their job, developing their abilities and increasing social communication (Flintoff & Scraton, 2021). When examined from this perspective, currently participation in physical activity, an important support for human health, appears to be a motivating factor with external reasons like the physical needs and life requirements of individuals and internal reasons like enjoyment, knowing the self and satisfaction (Altun-Ekiz et al., 2021). Motivation is encountered as one of the important internal elements increasing the efficacy of an individual's goals from physical activity participation (Ehrlich-Jones et al., 2011).

Motivation for physical activity participation may be affected by situations like the mental and physical tiredness experienced by individuals, along with daily duties, test anxiety and anxiety about the future (Bozkurt & Tamer, 2020; Yaşartürk et al., 2022). Additionally, personal choices of individuals, interpersonal interactions and duration allocated for leisure were stated to directly affect motivation for participation in physical activity. Increasing or preserving an individual's motivation for physical activity may be said to be associated with the individual's participation in physical activity during leisure (Molanorouzi et al., 2015;

Spiteri et al., 2019). However, currently many people go to school with the aim of preparing for life or go to work to meet their requirements for life and spend a large portion of their daily life in these institutions. The majority of individuals continue to attend work or school in spite of negative personal and interpersonal conditions (Hirschle & Gondim, 2020; Ovink, 2017). Cooper (1998) called this situation “presenteeism” if the person is present in the workplace when they do not contribute to work due to fear that their connection to the institution may be cut off, even if they are uncomfortable, unhealthy and unhappy.

The presenteeism concept began to be defined in the second half of the 20th century and was included in many social studies (Johns, 2010; Lohaus & Habermann, 2019; Schultz & Edington, 2007; Smithy, 1970). Presenteeism was first explained as the concept of the individual spending long hours in the workplace to ensure an image of working in spite of being unable to work, with the aim of being able to show institutional loyalty in spite of a health problem preventing them from working (Cooper, 1998; Quazi, 2013). However, this concept began to be included in educational-teaching life over time and was associated with the concepts of “student presenteeism” and “not being present in lessons” (Gottfried & Kirksey, 2017; Moore et al., 2008).

When educational environments are investigated, students may be bodily present in class; however, mentally they can be within a different space. Students appear to be listening to lessons while thinking of other things and this was shown to be an indicator of presenteeism behavior observed in educational institutions (Matsushita, 2011). Students not being present in lessons may be described as performance loss in lessons due to the student’s health problems, feeling they don’t belong in school and not adjusting to the institution they are attending (Matsushita et al., 2015). This behavior, leading to consideration that some students are tired of academic life, may be interpreted as “presenteeism in school”. A current topic in recent years, presenteeism emerges as a behavior that is very common among students and may have long-term negative impacts on students (Bergström et al., 2009).

Presenteeism is an important concept intertwined with concepts like the lack of ability to focus in lessons, not attending lessons or not making it to lessons on time, not taking notes and not participating (Sarıçam & Çetintaş, 2017a). Due to not being present in lessons, students may be faced with progressive problems like absences from educational life, academic failure and other health problems (Gottfried & Kirksey, 2017; Moore et al., 2008). In recent periods, a significant fall was observed in the mental and physical health of university students and this situation directly impacts the lives of students (Grasdalsmoen et al., 2020). This fall may be said to be affected by presenteeism in addition to the effect of epidemic diseases experienced by the world in general (Zhang et al., 2020). At this point, it is necessary to give more focus to the topic of student presenteeism in terms of identifying this behavior among students in the early stages and reducing risks that may occur.

In line with this information, the aim of this research was to investigate the leisure boredom, physical activity motivation and presenteeism levels of university students according to some variables and to determine the predictive power of leisure boredom for physical activity motivation and presenteeism. When the relevant research is investigated, there are studies identifying the presence of absenteeism, closely associated with presenteeism, with

efficiency, burnout, stress and life balance (Akay et al., 2022; Jia et al., 2022; Knani, 2022; Komp et al., 2022a; Komp et al., 2022b). However, there was no study associating presenteeism with leisure boredom and motivation for participation in physical activity, so it is considered that this study will contribute to the literature.

## **METHOD**

### **Research Model**

In this study, the relational screening model was chosen due to investigate leisure boredom, motivation for participation in physical activity and presenteeism concepts within the scope of dependent and independent variables. The relational screening model is a research model aiming to determine the presence and/or degree of variation between two or more variables. The relational screening model has two types; correlation type and comparison type. In correlation type research models, investigations examine whether the variables change together or not and what the existing variation is, while in the comparison type, groups are created for at least two variables according to the independent variable to investigate whether there is a difference between the groups according to the dependent variable (Karasar, 2020).

### **Universe-Sample (Working Groups)**

The study group for the research comprised a total of 517 university students, 277 women (Mean<sub>age</sub>=21.31±1.6) and 240 men (Mean<sub>age</sub>=22.13±3.18), attending universities located in different provinces (Ankara, Kırkkale, Adana, Aydın) in Türkiye chosen with the convenient sampling method. The convenient sampling method is a non-random sampling type determining the target population by meeting important criteria like being easily accessible, geographical proximity, and usability within a certain time (Dörnyei, 2007). In every study, researchers wish to complete the research with the maximum number of participants possible. However, due to limitations of the population, this may not be possible and researchers must use a variety of sampling methods. According to Etikan et al. (2016), the technique used by a researcher to determine participants is linked to the type, nature and aim of the study. The convenient sampling method is a very useful method due to proximity and accessibility of the sample to researchers.

### **Data Collection Tools**

For data collection tools in the research, the personal information form including variables like gender, age, marital status and membership of clubs was designed by the researchers. The Leisure Boredom Scale (LBS), Presenteeism Scale for Adults (PSA) and Motivation Scale for Participation in Physical Activity (MSPPA) were also used.

**Personal Information Form:** In addition to questions about demographic information such as gender and age of the study participants, the form, which includes questions such as

membership of a club/organisation (social-cultural-sports), frequency of exercise participation (walking, cycling, wheeling, sports, active recreation and play) was created by the researchers.

***Leisure Boredom Scale (LBS):*** The Leisure Boredom Scale was developed by Iso-Ahola & Weissinger (1990) with the aim of measuring individual differences in boredom perceptions during leisure among participants and adapted to Turkish by Kara et al. (2014). The scale includes 10 items and 2 factors. The scale factors are “boredom” (5 items) and “satisfaction” (5 items). The scale items have a 5-point Likert structure from 5: definitely agree to 1: definitely disagree. The Cronbach alpha internal consistency coefficients calculated with data collected within the scope of the research were .78 for the “boredom” subscale and .72 for the “satisfaction” subscale.

***Presenteeism Scale for Adults (PSA):*** Prepared by Matsushita et al. (2011) in order to determine presenteeism behavior among participants, the PSA was adapted to Turkish by Sarıçam et al. (2013). The scale comprises 10 items and 2 factors. The scale factors are “completing work” (5 items) and “avoiding distraction” (5 items). The scale items have 5-point Likert structure from 5: all the time to 1: none of the time. The Cronbach alpha internal consistency coefficients calculated with data obtained within the scope of this research were .66 for the avoiding distraction subscale and .74 for the completing work subscale.

***Motivation Scale for Participation in Physical Activity (MSPPA):*** To investigate the factors affecting participation in physical activity of participants, the Motivation Scale for Participation in Physical Activity developed by Tekkurşun-Demir & Cicioğlu (2018) was used. The scale comprises 16 items and 3 factors. The scale factors are “individual reasons” (6 items), “environmental reasons” (6 items) and “lack of reasons” (4 items). The scale items are ranked from 5: definitely agree to 1: definitely disagree and have 5-point Likert structure. The Cronbach alpha internal consistency coefficients calculated with data collected within the scope of the research were .86 for the individual reasons, .77 for the environmental reasons and .84 for the lack of reasons subscales.

### **Ethical Approval**

Ethical approval of this study was obtained with the decision of Kırıkkale University Social and Human Sciences Humanities Research Ethics Committee (Approved date 18.04.2023 and number 15-04).

### **Data Collection**

Data collection was completed with participation of university students located in different provinces in Türkiye (Kırıkkale, Adana, Aydın, Ankara, etc.) and with different cultural features. Data were collected online using the Google Forms application. Detailed information was shared about the research on the form and only volunteer students who accepted the research conditions participated. Completion of the scales took about 10 minutes.

### **Analysis of Data**

Statistical analysis of data collected during the research used the SPSS 26.0 program. Analysis of data used the statistical methods of descriptive statistics, MANOVA, simple

correlation tests and regression analysis. To determine whether the obtained data abided by the preconditions for parametric tests, the decision was made to investigate the skewness and kurtosis values (+2 to -2) and Levene (homogeneity of variance) test results (Büyüköztürk, 2012).

## FINDINGS

**Table 1.** MANOVA table according to gender

	Gender	N	Mean	SD	p
<b>Boredom (LBS)</b>	Female	277	2.74	.93	.418
	Male	240	2.68	.89	
<b>Satisfaction (LBS)</b>	Female	277	3.60	.71	.176
	Male	240	3.51	.75	
<b>Completing work (PSA)</b>	Female	277	2.32	.75	.001*
	Male	240	2.49	.70	
<b>Avoiding distraction (PSA)</b>	Female	277	3.21	.71	.878
	Male	240	3.20	.67	
<b>Individual reasons (MSPPA)</b>	Female	277	4.15	.75	.891
	Male	240	4.16	.69	
<b>Environmental reasons (MSPPA)</b>	Female	277	3.65	.76	.174
	Male	240	3.75	.76	
<b>Lack of reasons (MSPPA)</b>	Female	277	3.98	.81	.009
	Male	240	3.77	1.03	

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

The MANOVA results identified that the basic effect of the gender variable was not significant for LBS (Hotellings: .156,  $F_{(2.514)}=1.865$ ,  $p>0.05$ ). Additionally, the basic effect of gender appeared to be significant for PSA (Hotellings: .031,  $F_{(2.513)}=3.488$ ,  $p<0.05$ ), though a significant difference was identified only for the “completing work” subscale. For the completing work subscale, there was a statistically significant difference identified in favor of male participants ( $F_{(1.514)}=6.746$ ;  $p<0.05$ ). According to multivariate analysis results, gender was not identified to have basic effect on MSPPA (Hotellings: .009,  $F_{(3.513)}=3.913$ ,  $p>0.05$ ).

**Table 2.** MANOVA table according to club/organization membership

		N	Mean	SD	p
<b>Boredom (LBS)</b>	Yes	201	2.50	.89	.000*
	No	316	2.85	.90	
<b>Satisfaction (LBS)</b>	Yes	201	3.63	.74	.109
	No	316	3.52	.73	
<b>Completing work (PSA)</b>	Yes	201	2.86	.71	.003*
	No	316	2.48	.74	
<b>Avoiding distraction (PSA)</b>	Yes	201	3.14	.63	.101
	No	316	3.25	.72	
<b>Individual reasons (MSPPA)</b>	Yes	201	4.26	.63	.007*
	No	316	4.08	.77	
<b>Environmental reasons (MSPPA)</b>	Yes	201	3.73	.78	.393
	No	316	3.67	.75	
<b>Lack of reasons (MSPPA)</b>	Yes	201	4.00	.94	.025*
	No	316	3.81	.91	

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001



According to analysis results based on being a member of any club/organization (social-cultural-sports), the basic effect of LBS was identified to be significant (Hotellings: .000,  $F_{(2.514)}=9.367$ ,  $p<0.05$ ). Additionally, only the “boredom” subscale had a significant difference in favor of participants who were not members ( $F_{(1.515)}=18.757$ ;  $p <0.05$ ). Additionally, according to multivariate analysis, the variable of being a member of any club/organization (social-cultural-sports) was identified to have significant basic effect on PSA (Hotellings: .006,  $F_{(2.513)}=5.192$ ,  $p < 0.05$ ), with significant difference identified only for the “completing work” subscale. For the “completing work” subscale, there was a statistically significant difference in favor of participants with membership ( $F_{(1.514)}=6.746$ ;  $p <0.05$ ). In addition to these findings, the basic effect of membership status on MSPPA was identified (Hotellings: .031,  $F_{(3.513)}=2.979$ ,  $p<0.05$ ). There were statistically significant differences identified in favor of participants with membership for the “individual reasons” and “lack of reasons” subscales ( $F_{(1.515)}=7.391$ ;  $F_{(1.515)}= 6.848$ ;  $p <0.05$ ).

**Table 3.** MANOVA table according to participation in physical activity

		N	Mean	SD	P
<b>Boredom (LBS)</b>	Participate regularly	171	2.31	.80	.000*
	Participate irregularly	260	2.83	.85	
	Don't participate	86	3.16	.98	
<b>Satisfaction (LBS)</b>	Participate regularly	171	3.77	.69	.000*
	Participate irregularly	260	3.53	.69	
	Don't participate	86	3.24	.82	
<b>Completing work (PSA)</b>	Participate regularly	171	2.21	.71	.000*
	Participate irregularly	260	2.42	.67	
	Don't participate	86	2.73	.82	
<b>Avoiding distraction (PSA)</b>	Participate regularly	171	3.12	.65	.069
	Participate irregularly	260	3.23	.65	
	Don't participate	86	3.32	.83	
<b>Individual reasons (MSPPA)</b>	Participate regularly	171	4.35	.65	.000*
	Participate irregularly	260	4.18	.64	
	Don't participate	86	3.67	.85	
<b>Environmental reasons (MSPPA)</b>	Participate regularly	171	3.83	.77	.000*
	Participate irregularly	260	3.73	.72	
	Don't participate	86	3.35	.76	
<b>Lack of reasons (MSPPA)</b>	Participate regularly	171	4.04	.95	.000*
	Participate irregularly	260	3.90	.84	
	Don't participate	86	3.50	1.01	

\* $p<0.05$ , \*\* $p<0.01$ , \*\*\* $p<0.001$

Analyses according to the variable of university students participating in physical activity identified a significant basic effect on the two LBS subscales (Hotellings: 0.01,  $F_{(1.428)}=7.472$ ,  $p < 0.05$ ). The mean points for the “boredom” ( $F_{(2.514)}=32.818$ ;  $p < 0.05$ ) and “satisfaction” ( $F_{(2.514)}=15.811$ ;  $p < 0.05$ ) subscales differed. While the boredom subscale points of those who did not participate in physical activity were high, the satisfaction subscale points of those participating in regular physical activity differed. When multivariate analysis results are investigated, analyses according to the physical activity participation variable showed a significant basic effect on PSA (Hotellings: .000,  $F_{(2.512)}=8.409$ ,  $p < 0.05$ ). A significant difference was identified for the “completing work” subscale, with a statistically significant difference identified in favor of those not participating in physical activity ( $F_{(2.513)}=15.351$ ;  $p <0.05$ ).

Additionally, basic effects of participation in physical activity were identified for all subscales of the MSPPA (Hotellings: .000,  $F_{(3.512)}=10.148$ ,  $p<0.05$ ). There were statistically significant differences identified for the “individual reasons” ( $F_{(2.514)}=28.662$ ;  $p <0.05$ ), “environmental reasons” ( $F_{(2.514)}=11.979$ ;  $p <0.05$ ) and “lack of reasons” ( $F_{(2.514)}=10.378$ ;  $p <0.05$ ) subscales in favor of those participating in regular physical activity.

**Table 4.** Correlation analysis results (LBS, PSA, MSPPA)

	Boredom	Satisfaction	Completing work	Avoiding distraction	Individual reasons	Environmental reasons	Lack of reasons
<b>Boredom</b>	1						
<b>Satisfaction</b>	-.349**	1					
<b>Completing work</b>	.224**	-.366**	1				
<b>Avoiding distraction</b>	.348**	-.014	.128**	1			
<b>Individual reasons</b>	-.093*	.311**	-.404**	.077	1		
<b>Environmental reasons</b>	.015	.186**	-.219**	-.025	.509**	1	
<b>Lack of reasons</b>	-.279**	.191**	-.235**	-.165**	.478**	.247**	1

\* $p<0.05$ , \*\* $p<0.01$ , \*\*\* $p<0.001$

According to correlation analysis, the were positive, significant and low level correlations identified between the LBS “boredom” subscale points with the PSA “completing work” ( $r = .224$ ;  $p<0.01$ ) and “avoiding distraction” ( $r = .348$ ;  $p<0.01$ ) subscales. There were negative significant and low level correlations between the LBS “boredom” subscale points with the MSPPA “individual reasons” ( $r = -.093$ ;  $p<0.05$ ) and “lack of reasons” ( $r = -.279$ ;  $p<0.01$ ) subscales. Additionally, there was a negative, significant and low level correlation between the LBS “satisfaction” subscale points with the PSA “completing work” ( $r = -.366$ ;  $p<0.01$ ) subscale. For the LBS “satisfaction” subscale points, there were positive significant and low level correlations identified with the MSPPA “individual reasons” ( $r = .311$ ;  $p<0.05$ ), “environmental reasons” ( $r = .186$ ;  $p<0.01$ ) and “lack of reasons” ( $r = .191$ ;  $p<0.01$ ) subscales.

**Table 5.** Predictive power of perception of boredom during leisure on presenteeism and physical activity motivation

PSA	Boredom		Satisfaction	
	Completing work	B	Avoiding distraction	$\beta$
		.22*		-.36*
R=0.22; $R^2=0.05$ ; Adjusted $R^2=0.05$ ; $F_{(1.514)}=27.136$ ; $p<0.01$				
R=0.36; $R^2=0.13$ ; Adjusted $R^2=0.13$ ; $F_{(1.514)}=79.402$ ; $p<0.01$				
		.34*		
R=0.34; $R^2=0.12$ ; Adjusted $R^2=0.12$ ; $F_{(1.515)}=71.185$ ; $p<0.01$				
MSPPA				
	Individual reasons	-.09*		.31*
R=0.09; $R^2=0.09$ ; Adjusted $R^2=0.07$ ; $F_{(1.515)}=4.515$ ; $p<0.01$				
R=0.31; $R^2=0.09$ ; Adjusted $R^2=0.09$ ; $F_{(1.515)}=55.216$ ; $p<0.01$				
	Environmental reasons			.18*
R=0.18; $R^2=0.03$ ; Adjusted $R^2=0.03$ ; $F_{(1.515)}=18.466$ $p<0.01$				
	Lack of reasons	-.27*		.19*
R=0.27; $R^2=0.07$ ; Adjusted $R^2=0.07$ ; $F_{(1.515)}=43.577$ $p<0.01$				
R=0.19; $R^2=0.03$ ; Adjusted $R^2=0.03$ ; $F_{(1.515)}=19.533$ $p<0.01$				

\* $p<0.05$ , \*\* $p<0.01$ , \*\*\* $p<0.001$



Regression analysis was performed with the aim of identifying the role of the perception of boredom during leisure among university students in determining presenteeism and motivation for physical activity. According to the findings obtained as a result of the research, the “boredom” subscale predicted the PSA “completing work” ( $R=0.22$ ;  $R^2=0.05$ ; Adjusted  $R^2=0.05$ ;  $F_{(1,514)}=27.136$ ;  $p<0.01$ ), “avoiding distraction” ( $R=0.34$ ;  $R^2=0.12$ ; Adjusted  $R^2=0.12$ ;  $F_{(1,515)}=71.185$ ;  $p<0.01$ ), MSPPA “individual reasons” ( $R=0.09$ ;  $R^2=0.09$ ; Adjusted  $R^2=0.07$ ;  $F_{(1,515)}=4.515$ ;  $p<0.01$ ) and “lack of reasons” ( $R=0.27$ ;  $R^2=0.07$ ; Adjusted  $R^2=0.07$ ;  $F_{(1,515)}=43.577$   $p<0.01$ ) subscales. The analysis results for the “boredom” subscale showed positive correlations with the PSA “completing work” ( $\beta = 0.22$ ;  $p<0.01$ ) and “avoiding distraction” ( $\beta = 0.34$ ;  $p<0.01$ ) subscales and negative correlations with the MSPPA “individual reasons” ( $\beta = -.09$ ;  $p<0.01$ ) and “lack of reasons” ( $\beta = -.27$ ;  $p<0.01$ ) subscales.

Additionally, the “satisfaction” subscale was identified to predict the PSA “completing work” ( $R=0.36$ ;  $R^2=0.13$ ; Adjusted  $R^2=0.13$ ;  $F_{(1,514)}=79.402$ ;  $p<0.01$ ), MSPPA “individual reasons” ( $R=0.31$ ;  $R^2=0.09$ ; Adjusted  $R^2=0.09$ ;  $F_{(1,515)}=55.216$ ;  $p<0.01$ ), “environmental reasons” and “lack of reasons” ( $R=0.19$ ;  $R^2=0.03$ ; Adjusted  $R^2=0.03$ ;  $F_{(1,515)}=19.533$   $p<0.01$ ) subscales. According to the analysis results, the satisfaction subscale had negative correlation with the PSA “completing work” ( $\beta = -.36$ ;  $p<0.01$ ) subscale and positive correlations with the MSPPA “individual reasons” ( $\beta = 0.31$ ;  $p<0.01$ ), “environmental reasons” ( $\beta = 0.18$ ;  $p<0.01$ ) and “lack of reasons” ( $\beta = 0.19$ ;  $p<0.01$ ) subscales.

## DISCUSSION AND CONCLUSION

The primary aim of the study was to investigate the perceptions of leisure boredom, physical activity motivation and presenteeism of university students according to some variables. The secondary aim of the study was to determine the predictive power of perceptions of leisure boredom on motivation for participation in physical activity and presenteeism.

According to the findings, the mean LBS points of participants did not display a statistically significant difference according to the gender variable. There are similar studies showing that the perceptions of leisure boredom does not differ according to gender in the literature (Kara & Gücal, 2016; Kara & Özdedeoğlu, 2017; Yaşartürk et al., 2017). This similarity of boredom perceptions identified according to gender may be due to all participants being university students and having similar social lives. Though participants lived in different cities, it is thought that the opportunities on university campuses and campus recreation programs are similar.

Another research finding according gender identified that the mean PSA points were statistically significantly different in favor of male participants for the “completing work” subscale. Sarıçam and Çetintaş (2017b) obtained parallel results in a study of university students who were preservice teachers. The Gender Based Achievement Gap (2017) research in Turkey found that the education level of the father has a stronger impact on a child's

academic success compared to the education level of the mother, and working for income negatively affects the academic performance of all students. Female students tend to be more ambitious and have a stronger sense of school belonging than male students (Batyra, 2017). With these results from the research group, it can be said that it is necessary to create a sense of belonging to the school for male students and to give them sensitivity about the importance of school environments.

There was no effect of the gender variable identified for mean MSPPA points. Similarly, research by Tekkurşun-Demir and Cicioğlu (2018) identified that mean MSPPA points did not differ for women and men. Different to these findings, research results by Türkeli and Namlı (2019) from a similar sample revealed that women students had higher motivation. In this context, the university students participating in the research may be said to have similar sources of motivation for participation in physical activity and experience similar mood when participating in physical activity. A study by Chu and Zhang (2018) determined that university students who were members of sports clubs had higher general grades and there was a positive correlation with the body mass index of participants. According to the research findings, based on the variable of being a member of any club/organization, mean LBS points for the boredom subscale were identified to be statistically significantly different in favor of participants who were not members. In the literature, there is research about the important role played by physical activity in coping with boredom perceptions (Güngörmüş et al., 2014; Kara, 2015; Sarol & Çimen, 2017;). This finding may be interpreted as showing that participation in any physical or social activity during leisure reduces boredom. In order to prevent boredom, individuals may consider becoming members of clubs or organizations according to their interests and adopting a more active life in the social and physical sense.

Another finding of the research identified a significant difference in favor of participants who are members of any club/organization for the mean PSA points for the “completing work” subscale. Moving from this point, students who are members of a club have positive impact on academic performance, being active in physical terms will be reflected in their educational life, they will have academic concentration and attendance will be ensured with this motivation. Gottfried and Kirksey (2017) stated that elevating academic performance directly affected the attendance of students.

The MSPPA mean points for the “individual reasons” and “lack of reasons” subscales were identified to be statistically significantly different according to being a member of any club/organization in favor of participants who were members. Based on this, students with membership of any club/organization may be interpreted as having higher internal motivation. Considering the mean age interval of university students, it can be inferred that they act for enjoyment in line with individual desires. Again, students with membership of a club/organization appear to have question marks about why they participate in an activity and uncertainty about outcomes. This situation may be interpreted as due to university students not having adequate information about topics like the effects of physical activity and the meaning of leisure. Research by Grasdalsmoen et al. (2020), with similarity to our study, stated that low

levels of information about social isolation and physical activity among university students was effective in acquiring a physically inactive lifestyle.

Another finding of the research identified statistically significant differences according to the participation in physical activity for the LBS mean points for the “boredom” subscale in favor of those not participating in physical activity and for the satisfaction subscale in favor of those participating in regular physical activity. Similarly, there is research in the literature with significant differences in boredom perceptions according to participation in physical activity (Gürbüz et al., 2017). Different to this result, research including a similar sample by Kara and Özdedeolu (2017) did not identify a significant difference according to the variable of participation in physical activity within the scope of the LBS. In this context, students who are not physically active will have high boredom levels and physically active students may be said to have more positive outcomes at the point of satisfaction.

The mean PSA points of participants was identified to have statistically significant differences for the “completing work” subscale in favor of those not participating in physical activity. In a study conducted in 2021, 80% of the analyzed studies showed positive results, indicating a significant impact of exercise or physical activity on cognition (Ferreira et al., 2021). According to the WHO (2022), physical activity is beneficial for improving various cognitive skills such as thinking, learning, and reasoning. Physical activity can also enhance academic performance in children and adolescents by improving attention, memory, and information processing. The mechanisms underlying the cognitive benefits of physical activity are not fully understood, but it is believed that exercise promotes the growth of new brain cells, increases blood flow and oxygen delivery to the brain, and enhances the production of neurotransmitters and growth factors that support brain function (Ferreira et al., 2021). The findings suggest that students who are less active or engaged in their studies are more likely to exhibit presenteeism. This could be due to a variety of factors, such as boredom, lack of motivation, or poor mental health.

The mean MSPPA points of participants were identified to be statistically significantly different in favor of those participating in regular activity for the “individual reasons”, “environmental reasons” and “lack of reasons” subscales. Parallel to this, there are studies in the literature showing that students who do not do physical activity regularly have low motivation for participation in physical activity (Bozkurt and Tamer, 2020). This situation shows that university students who regularly participate in physical activity have high motivation derived from the individual and from their social surroundings. The difference observed for the lack of reasons subscale may be interpreted as due to students not having adequate awareness about the physical activity they will participate in and doing these activities just to have done them.

According to regression analysis results, the LBS “boredom” subscale was identified to be a positive predictor of the PSA “completing work” and “avoiding distraction” subscales. This findings may explain the reasons for university students not being physically and psychologically present in lessons as due to having less internal motivation for leisure or finding leisure meaningless. The fact that students are not motivated in their leisure directly

affects their university education life, and it may be said they do not meet the requirements for their education (e.g., not doing homework, not bringing necessary material to lessons) and do not display the necessary concentration (e.g., not listening to lessons). Additionally, the negative prediction of the PSA “completing work” subscale by the LBS “satisfaction” subscale supports this finding.

According to regression analysis, the LBS “boredom” subscale was identified to negatively predict the MSPPA “individual reasons” and “lack of reasons” subscales. The LBS “satisfaction” subscale positively predicted the MSPPA “individual reasons”, “environmental reasons” and “lack of reasons” subscales. In line with these findings, the perception of boredom during leisure appears to have a logical negative correlation with participating in physical activity happily, peacefully and enjoyably. However, this negative correlation appears with the uncertain mood about why a person is doing an activity or what the results will be. Boredom is reflected in physical activity motivation as a mood of satisfaction and meaninglessness. Additionally, qualifying activities as enjoyable and exciting is seen as motivation that causes the individual to be directed toward any purpose-activity and represents environmental reasons such as rewards, friends, and being popular. However, the perception of satisfaction experienced during leisure appears to reflect the uncertainty of participants in terms of motivation for the physical activity. In this context, it may be said that this uncertainty involves not being able to make a decision about selecting an activity.

In conclusion, this research is limited by participation of university students. Future studies are recommended to perform longitudinal research with different sample groups. Additionally, it is predicted that research performed by associating different conceptual frameworks noting the presenteeism levels of university students will contribute to the literature.

**Conflict of Interest:** There is no personal or financial conflict of interest within the scope of the study.

**Researcher Statement of Contribution:** All researchers contributed equally to the study.

### **Ethical Approval**

**Board Name:** Kirikkale University Social and Human Sciences Humanities Research Ethics Committee

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