

# The Relationship Between Leisure Management and Exam Anxiety Levels of University Students

FATİH YAŞARTÜRK<sup>1</sup>, BUĞRA AKAY<sup>2</sup>, BETÜL AYHAN<sup>3</sup>

<sup>1</sup> Faculty of Sport Sciences, Bartın University, Turkey

<sup>2</sup> Faculty of Sport Sciences, Kırıkkale University, Turkey

<sup>3</sup> Vocational School of Social Sciences, Hitit University, Turkey

Correspondence to: Fatih Yaşartürk, E-mail: [fatihyasarturk@gmail.com](mailto:fatihyasarturk@gmail.com), Cell: 0 (378) 501 10 00

## ABSTRACT

**Aim:** The aim of the study is to examine the relationship between leisure management and test anxiety levels of university students and their differentiation status in terms of some demographic variables.

**Methods:** The relational survey model was used in the study, and there were 284 (147 male and 137 female) university students selected from the universe by convenient sampling method. Personal information form prepared by the researchers, "Leisure Management Scale (LMS)" and "Test Anxiety Inventory (TAI)" were used as data collection tools. In the analysis of the data, descriptive statistics, t-Test and Pearson Correlation analyzes were used by using SPSS 26.0 program.

**Results:** There was no significant difference in the sub-dimensions of the leisure management scale and the total score averages according to the gender variable, while a significant difference was found in the TAI "delusional", "affective" sub-dimensions and total score averages. According to the family income variable of university students, a low-level and negative significant relationship was found in the "leisure attitude" sub-dimension of LMS, and in the total TAI and "delusional sub-dimension". A significant relationship was found between the age variable and the "goal setting and method" sub-dimension of LMS. A low and negative significant relationship was found between leisure and "goal setting and method", "leisure attitude" and total LMS score averages. In addition, while there was no significant relationship between LMS and TAI, it was found that there was a low and negative significant relationship between the "leisure attitude" sub-dimension and the test anxiety inventory and its sub-dimensions.

**Conclusion:** It can be said that as the level of attitude towards leisure activities of university students' increases, the feeling of exam anxiety may decrease, and the increase in free time will adversely affect the level of leisure management and attitude.

**Keywords:** University students, Leisure management, Exam anxiety level.

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## INTRODUCTION

Time is a concept that took place before the existence of humanity and will continue to exist. The concept of time has always played an important role in people's individual, social and professional success. Time always plays an active role in the direction and change of methods in human and social life. There are many theories and scientific data on the concept of time and time management, from the beginning of humanity to the present day, in the most complex and difficult to understand way. Contemporary life and science offer us various alternatives for efficient and good evaluation of time management.

The concept of leisure, when it can be used appropriately and valuable, gives the person the opportunity to stay by himself, to realize his own freedom, to find himself. Good use of free time enables a person to express himself, gain social satisfaction, develop creativity, gain new experiences, improve his social environment and increase his productivity<sup>1,2</sup>. Today, it is seen that the development process in the concept of leisure continues as a blessing of civilization and development in developed and industrialized countries, and partially in developing countries such as Turkey.

As a matter of fact, the importance of leisure in social and social life continues to become more evident and increase rapidly due to reasons such as the reduction in

daily and weekly working hours, the increase in holidays, and the change in social norms. The fact that individuals have spare time and the activities they perform in their spare time is a situation that directly or indirectly affects other dimensions and values of their lives. It is summarized as: "It is possible to compare leisure to a double-edged sword." If it is used positively, it may cause problems such as personal and social development, and if used negatively, it may cause problems such as depression and disorder. This situation reveals a phenomenon that should be given more importance for the 'youth', which constitutes an important part of the society<sup>3,4</sup>. Therefore, the use of leisure productively and for personal development will increase the level of motivation and will be beneficial in all programs of the individual's daily life.

In our age, effective use of leisure has become a part of daily life. Particularly, the activities they perform during their university education shape the success and behavior of people in the future<sup>5</sup>. In this context, the leisure activities of the students during the university period constitute an important part of the education life. In the university education process, gaining experience with various activities becomes important for the efficiency of leisure management. For this reason, it is expected that university students will evaluate leisure management correctly, and this will also positively affect the level of anxiety in their social life.

The concept of anxiety can be expressed as a state of fear and tension felt under a threat. Spielberger (1972) defines anxiety as unpleasant emotional and observable reactions such as sadness, perception and tension caused by stressful situations<sup>6</sup>. Exam anxiety is the emotional state that an individual experience many times throughout his/her education life. This situation can be explained as the anxiety and uneasiness seen in the person who is expected to perform before and during the exam due to many reasons such as not being prepared enough for the exam, not knowing efficient study methods, the expectation of success being above the level of proficiency, bad exam experiences in the past, and lack of self-confidence<sup>7</sup>. Students with test anxiety tend to worry about possible failure and their own inadequacies while studying for the exam. They deflect these negative thoughts so much that they fail to follow directions and ignore or misinterpret the information provided by the questions. As the level of anxiety increases, they have difficulty recalling what they have learned. In other words, individuals experience a cognitive disorder period<sup>8</sup>. These negative thoughts (delusions) of university students towards themselves cause them to be easily distracted. They fail in their behaviors such as reading and answering exam questions correctly, time management, choosing the right words and expressing them properly<sup>9</sup>. When university students develop their own cognitive level in leisure management and have practical knowledge and skills in this field, their success levels will progress positively and improvement in problem solving skills is predicted<sup>10</sup>. Therefore, it is predicted that if university students use leisure management towards personal development and contribution to the education process, their quality of life, life satisfaction and happiness level will also increase and will reduce their test or future anxiety to a minimum. Within this information, the aim of the research is to examine the relationship between leisure management and test anxiety levels of university students according to some demographic variables.

The hypotheses created within the scope of the study are given below.

H<sub>1</sub>: Is there a significant difference between the levels of leisure management and test anxiety according to the gender variable of the participants?

H<sub>2</sub>: Is there a significant relationship between the levels of leisure management and test anxiety according to the family income level of the participants?

H<sub>3</sub>: Is there a significant relationship between the levels of leisure management and test anxiety according to the age variable of the participants?

H<sub>4</sub>: Is there a significant relationship between the levels of leisure management and test anxiety according to the leisure period variable of the participants?

H<sub>5</sub>: Is there a significant relationship between the leisure management and test anxiety levels of the participants?

## MATERIAL AND METHODS

The relational survey model was used in this study, which aims to determine the relationship between the test anxiety

levels of Bartın University students and their leisure management levels. Relational surveys are models to reveal the relationship between two or more variables<sup>11,12</sup>.

**Universe and Sample (Research Group):** While the population of our study consists of 1550 Bartın University students in 2020-2021, the sample group consists of 284 Bartın University students, 147 males and 137 females, selected by convenient sampling method. In convenient sampling, the researcher includes the elements in the universe that are easy to reach in the sample group and it is the sampling method that accelerates the study<sup>13</sup>.

**Data Collection Tools:** The personal information form prepared by the authors consists of questions about gender, family income, age and leisure. Data collection tools were created over "Google Form" due to the pandemic.

**Leisure Management Scale (LMS):** The Leisure Management Scale (LMS), developed by Wang, Kao, Huan, and Wu (2011)<sup>14</sup>, and adapted into Turkish by Akgül and Karaküçük (2015), was used<sup>3</sup>. Leisure management scale, comprises of 4 sub-dimensions, covering "Purpose setting and method (1,2,3,6,7 and 8), Leisure time attitude (10,11 and 12), Evaluation (4,5 and 9), Program (13,14 and 15), a 5-point Likert scale and 15 items. Programming sub-dimension consists of reverse items. Grading is done as (1 = I totally disagree, 5 = I totally agree). The high score obtained from the scale indicates the high level of leisure management. The Cronbach Alpha value of the goal setting and method sub-dimension of the leisure management scale was found as ".81", the leisure attitude sub-dimension as ".79", the evaluation sub-dimension as ".71", the programming sub-dimension as ".73", the overall scale as ".83". The Cronbach Alpha value calculated by the test-retest method was found to be ".86". Within the scope of our study, the goal setting and method sub-dimension coefficient was found as ".81", the leisure attitude sub-dimension as ".67", the evaluation sub-dimension as ".70", the programming sub-dimension as ".73", the overall scale internal consistency coefficient as ".84".

**Test Anxiety Inventory (TAI):** The Test Anxiety Inventory (TAI), developed by Spielberger (1980)<sup>15</sup> and adapted in Turkish by Öner (1990), was used to evaluate the anxiety levels of individuals<sup>9</sup>. The inventory consists of two sub-dimensions, namely: delusion (2,3,4,5,8,12,17,20) and affectivity (1,6,7,9,10,11,13,14,15,16,18,19). The first item is reverse coded, and the inventory consisting of 20 items is graded as (1 = Never, 2 = Sometimes, 3 = Often, 4 = Always). The high scores obtained from the inventory indicate the high level of test anxiety. The internal consistency coefficient of the scale, which was adapted into Turkish, was found to be ".87"<sup>9</sup>. Within the scope of our study, the Cronbach Alpha value of the delusion sub-dimension was found as ".77", the affectivity sub-dimension as ".83", and the overall test anxiety inventory as ".89".

**Data Analysis:** The 26.0 version of the SPSS package program was used in the analysis of the data. In the analysis of the data, it was determined according to the kurtosis-skewness and Kolmogorov-Smirnov values of the data. Frequency, percentage, mean, standard deviation

values, t-Test and Pearson Correlation analyzes were used in the analysis process. Cronbach's Alpha internal consistency coefficients were calculated to calculate the reliability values of the scales. The level of significance in the analyzes was taken as  $p < 0.05$ .

**RESULT**

Table 1: Descriptive statistics table of participants' demographic information

Variables		n	%	$\bar{X}$	S
Gender	Male	147	51.8		
	Female	137	48.2		
Family Income		284		3.224	1.870
Age		284		21.8	2.1
Leisure Period		284		7.6	3.5

It is seen that 51.8% of the participants are men and 48.2% are women. It was determined that the average family income of the participants was 3224 Turkish Liras, their average age was 21.8, and their leisure time average was 7.6 hours. (Table 1).

Table 3: LMS and TAI t-Test results by gender variable of participants

Sub-Dimensions	Gender	n	X	S	sd	t	p
Goal Setting and Method	Male	147	3.41	.76	282	.132	.895
	Female	137	3.40	.81			
Leisure Attitude	Male	147	3.83	.84	282	.707	.480
	Female	137	3.76	.83			
Evaluation	Male	147	3.30	.86	282	.446	.656
	Female	137	3.26	.86			
Programming	Male	147	4.06	.54	282	-.550	.583
	Female	131	4.02	.55			
LMS (Total)	Male	147	3.60	.58	282	.498	.619
	Female	137	3.57	.61			
Delusional	Male	147	2.10	.52	282	-2.330	.021*
	Female	137	2.25	.57			
Affectivity	Male	147	2.17	.50	282	-2.837	.005*
	Female	137	2.34	.52			
TAI (Total)	Male	147	2.14	.48	282	-2.772	.006*
	Female	137	2,31	,51			

\* $p < 0.05$

When the LMS and TAI t-Test table of the participants' gender variable is examined, it was found that there was a significant difference in favor of male participants at anxiety sub-dimension [ $t(282) = -2.330, p < 0.05$ ]; affectivity sub-dimension [ $t(282) = -2.837, p < 0.05$ ]; and TAI total score averages [ $t(282) = -2.772, p < 0.05$ ]. In other words, the test anxiety level of women is higher than that of men. No significant difference was found in the sub-dimensions of LMS and the mean total score for the gender variable (Table 3) ( $p > 0.05$ ).

Table 4: TAI correlation test results according to participants' family income variable

		Delusional	Affectivity	TAI (Total)
Family Income	r	-.153*	-.102	-.128*
	p	.010	.086	.031

\* $p < 0.05$

Table 2: LMS correlation test results according to participants' Family income variable

		Goal Setting and Method	Leisure Attitude	Evaluation	Programming	LMS (Total)
Family Income	r	-.101	-.134*	-.058	-.074	-.116
	p	.090	.024	.327	.213	.051

\* $p < 0.05$

As a result of the Pearson correlation analysis performed to reveal the relationship between the family income variable of the participants and the LMS, a low and negative statistically significant relationship was found between the family income and the LMS "leisure time attitude" sub-dimension (Table 2) ( $r = -.134, p < 0.05$ ).

According to the results of the Pearson correlation analysis conducted to examine the relationship between the participants' family income variable and TAI, a statistically low and negative significant correlation was found between family income and the TAI "delusional" sub-dimension and the total mean scores of TAI (Table 4) ( $r = -.153, r = -.128, p < 0.05$ ).

Table 5: LMS correlation test results according to participants' age variable

		Goal Setting and Method	Leisure Attitude	Evaluation	Programming	LMS (Total)
Age	r	.134*	.080	.040	-.041	.104
	p	.024	.178	.500	.493	.081

\* $p < 0.05$

According to the results of the Pearson correlation analysis performed to reveal the relationship between the age variable of the participants and LMS, no significant relationship was found between the age variable and the total mean scores of the leisure management scale ( $p>0.05$ ). A statistically low level of positive and significant correlation was found between the age variable and the LMS "goal setting and method" sub-dimension (Table 5) ( $r=.134, p<0.05$ ).

Table 6: TAI correlation test results according to participants' age variable

		Delusional	Affectivity	TAI (Total)
Age	r	.028	.024	.025
	p	.636	.691	.675

$p<0.05$

When the Pearson correlation analysis, which was performed to reveal the relationship between the age variable of the participants and the TAI, was examined, no significant relationship was found between the age variable and the TAI sub-dimensions and total score averages. (Table 6) ( $p>0.05$ ).

Table 7: LMS correlation test results according to participants' leisure period variable

		Goal Setting and Method	Leisure Attitude	Evaluation	Programming	LMS (Total)
Leisure Period	r	-.207*	-.129*	.094	.064	-.175*
	p	.000	.029	.113	.285	.003

$p<0.05$

The results of the Pearson correlation analysis performed to examine the relationship between the daily leisure time variable of the participants and LMS are included. A low-level and negative significant relationship was found between daily leisure time and LMS "goal setting and method", "leisure time attitude" and total leisure management scores (Table 7) ( $r=-.207, r=-.129, r=-.175$ ),  $p<0.05$ ).

Table 8: TAI correlation test results according to participants' leisure period variable

		Delusional	Affectivity	TAI (Total)
Leisure Period	r	.032	-.012	.019
	p	.588	.836	.744

$p<0.05$

As a result of the Pearson correlation analysis conducted to reveal the relationship between the participants' leisure time variable and TAI, there was no statistically significant relationship between the leisure time variable and the mean scores of the SCI sub-dimension and total score (Table 8) ( $p>0.05$ ).

As a result of the Pearson correlation analysis performed to examine the dyadic relationship between the participants' LMS and TAI; no significant correlation was found between the total scores of the two scales. However, a low level of negative and significant correlation was found between the

LMS "leisure attitude" sub-dimension and the TAI "delusional", "effectiveness" sub-dimension and the total mean scores of SCI (Table 9) ( $r=-.156, r=-.205, r=-.194, p<0.05$ ).

Table 9: The results of the correlation test between the participants' LMS and TAI

Sub-Dimensions and Total Scores		Goal Setting and Method	Leisure Attitude	Evaluation	Programming	LMS (Total)
Delusional	r	-.110	-.156*	-.023	.058	-.097
	p	.065	.008	.695	.329	.101
Affectivity	r	-.079	-.205*	.001	.036	-.092
	p	.184	.001	.989	.550	.121
TAI (Total)	r	.097	-.194*	-.010	.047	-.099
	p	.104	.001	.870	.427	.095

$p<0.05$

## DISCUSSION & CONCLUSION

The aim of our research is to examine the relationship between university students' leisure time management and test anxiety levels and their differentiation status in terms of some demographic variables. In this section, the results obtained from the study are discussed.

It was found that the leisure time management levels of university students for the gender variable did not differ significantly. However, when the total point averages of the scale are examined, there is a situation in favor of male students. Similarly, Ayyıldız Durhan et al. (2017), in their study on participants who are recreationally interested in swimming, found that the LMS sub-dimension and total scores for the gender variable did not change significantly, and stated that the mean score of male participants in the total scale was higher<sup>16</sup>. Işıkgöz et al. (2021) found a significant change in favor of male participants in the sub-dimension of LMS "leisure time attitude" for the gender variable<sup>17</sup>. He attributed this situation to the fact that men have more opportunities than women in terms of participation in leisure activities<sup>18</sup>. Eranıl and Özcan (2018) found that leisure management did not change significantly according to the gender variable of the participants<sup>19</sup>. Çuhadar et al. (2019), Yaşartürk et al. (2018) stated that the leisure management levels of the participants for the gender variable did not change significantly<sup>20,21</sup>. When the studies on leisure time management in the literature were examined, it was seen that gender did not have a significant effect. The reason for this situation can be predicted as the fact that the restrictions on women in business life and cultural structure will decrease compared to the past.

It was found that university students showed a significant difference in the TAI "delusional", "affective" sub-dimensions and total TAI for the gender variable. The mean scores of women in the sub-dimensions and in the total of the scale were higher. Therefore, it was concluded that the

anxiety level of men was lower than that of women. Hembree (1988) found that women's test anxiety levels were higher than men and stated that this difference started to occur in primary school, reached the 5th and 10th peak, and decreased during high school and university education<sup>22</sup>. Similarly, Kapıkıran (2002) determined that the test anxiety levels of university students changed significantly according to the gender variable, and the test anxiety levels of women were higher<sup>23</sup>. In line with the results of our study, Bacanlı and Sürücü (2006), Cassady and Johnson (2002), Başoğlu (2007) examined test anxiety levels in terms of gender variable; and test anxiety levels of women were found to be significantly higher than men<sup>24,25,26</sup>. Deffenbacher (1980) stated that the test anxiety levels of men and women are similar, but that women's emotional components increase their test anxiety<sup>25,27</sup>. There are studies in the literature that do not overlap with the findings of our study. Köse et al. (2018), Mollaoğulları and Uluç (2019) found that the gender variable did not significantly affect test anxiety levels<sup>28,29</sup>. Erözkan (2004), on the other hand, found that TAI significantly affected the "delusional" sub-dimension and that men had higher anxiety levels<sup>8</sup>. Examining the studies on test anxiety, it was found that female students generally had higher test anxiety levels. The fact that female students have a higher sense of responsibility than males<sup>30,31,32</sup> increases the study by women. This increase, together with the effort, may increase the anxiety level of female students for the exam. In situations where effort is not put in, it is normal to have little anxiety, as there is no fear of wasted effort. In cases where a lot of effort has been spent, the fear of wasting this effort can bring anxiety. Imagine that a pyramid is built with playing cards, there is almost no fear of collapsing when laying the first row on the base. The fear that the effort will be wasted when you reach the top will increase the anxiety.

A low level and negative significant relationship was found in the LMS "leisure time attitude" sub-factor for the family income variable of university students. Yaşartürk et al. (2018), on the other hand, found that there is a low-level and positive relationship between the family income status of university students and the "leisure time attitude" of LMS<sup>21</sup>. Duran et al. (2020), Kirtepe and Yıldırım (2018) found that there was a significant difference between the income variable and leisure management of the participants<sup>33,34</sup>. Ayyıldız Durhan et al. (2017) did not find a significant difference between income and LMS in their study. In our study, the increase in family income of university students negatively affected their leisure time attitude<sup>16</sup>. The fact that students with low family income spend their time outside of school working to earn an income may have made them aware of the correct use and meaning of leisure time. This situation may have made progress in the efficient evaluation of the leisure attitude level of university students with low income.

A low-level and negative significant relationship was found in the TAI and "delusional" sub-dimensions for the family income variable of university students. In other words, the increase in family income reduces the test

anxiety levels of university students. Similarly, Erzen and Odacı (2014), Yıldırım and Gözüyeşil (2011) stated that test anxiety of students regarding the family income variable changed significantly and students with a good family income level experienced less test anxiety<sup>35,36</sup>. Dissimilar to the findings of our study, Altun et al. (2017) found that exam anxiety of students about their family income level changed significantly; and that students with higher family income experience more test anxiety<sup>37</sup>. He attributed this situation to the fact that students may experience anxiety in the exam because they want to maintain the state of well-being that they are accustomed to. Kaya and Savrun (2015), Yıldırım (2008), Güdek (2013) found that the test anxiety levels of the participants did not change significantly according to their family income<sup>38,39,40</sup>. Oral et al. (2020) found in their study on test anxiety that future anxiety increases test anxiety. In our study, the fact that students with a high family income level feel less anxious about the future than those with a low income level may have lowered the level of test anxiety<sup>41</sup>.

A low-level and positive significant relationship was found between the age variable of the participants and the LMS sub-factor "goal setting and method". It can be said that as the age of university students' increases, they participate in leisure activities in a planned manner. Arı (2017) found that there was a significant change in favor of the students whose age was "42 and over" between the LMS sub-factors "goal setting and method" and "evaluation" according to the age of the students<sup>42</sup>. Similarly, Duran et al. (2020) and Çuhadar (2020) found a significant difference between age and LMS<sup>33,43</sup>. In a way that does not overlap with the findings of our study, Yaşartürk et al. (2018) and Yıldırım (2021) found that there was no significant relationship between the age variable and LMS<sup>21,44</sup>. In our study, the fact that university students, whose age and grade level increase, spend their time more planned to prepare for life after graduation may have caused them to participate in leisure activities in a purposeful and programmed way.

In our study, it was found that there was no significant relationship between the age variable of the participants and the LMS and its sub-dimensions. Supporting our study, Başoğlu (2007) determined that there was no significant relationship between test anxiety level and age<sup>26</sup>. Contrary to the findings of our study, Dordinejad et al. (2011) found in their study that there is a negative relationship between the age of the participants and their test anxiety levels<sup>45</sup>. Doğan (2020), on the other hand, concluded in his study on the comparison of test anxiety of university and high school students, that age predicts test anxiety in high school and university students and stated that test anxiety increases with age<sup>46</sup>. Sangsiry and Kavita (2006), Rasor and Rasor (1998), McDonald (2001) found in their studies examining the relationship between age and test anxiety that younger students had less test anxiety than older students<sup>47,48,49</sup>. The close age range of university students in our study may be the reason why the relationship between age and test anxiety was not significant.

It has been found that there is a low-level negative

significant relationship between university students' leisure time and their total LMS scores, "goal setting and method", "leisure time attitude". Yıldırım (2021), Çakır (2017) and Kırtepe and Uğurlu (2018) found that the LMS sub-dimension and total scores for the leisure time variable did not change significantly<sup>44,50,51</sup>. Contrary to the findings of our study, Ayyıldız Durhan et al. (2017) found that all sub-dimensions and total scores differed significantly according to daily leisure time, except for the "programming" sub-factor of LMS<sup>16</sup>. In our research, the fact that university students have a lot of leisure time may have caused them to use their free time in an unplanned and aimless way and to lose its meaning. Therefore, the increase in leisure time reduces the students' level of goal setting and method and leisure attitude. Having a lot of free time does not mean that we will manage it well, but it can have a positive effect on reaching a sufficient level of satisfaction.

It was found that there was no significant relationship between the participants' leisure time variable and TAI and its sub-factors. On the contrary, Gökçe (2015) found in his study with students preparing for the university exam that the exam anxiety levels of students who participated in recreational activities decreased significantly<sup>52</sup>. University students may not be able to use their free time effectively and efficiently by participating in activities. Therefore, for students who do not spend their free time productively, it may not make sense if this time is more or less.

As a result, while there was no significant relationship between the LMS total scores and the TAI total scores of the university students, there was a low-level negative significant relationship between the LMS "leisure time attitude" sub-factor and the TAI sub-dimensions and total scores. In other words, the decrease in students' leisure attitude level increases their exam anxiety. Students who see leisure time as meaningful and valuable have less anxiety about exams.

**Recommendations:** It will be important to explain to students how to evaluate their social and educational life in the most efficient way by adding time management and leisure management courses to middle school, high school and university curricula.

In our study, the increase in students' leisure time attitude levels decreased their test anxiety levels. From this point of view, improving the university campus areas in terms of recreation and equipping them with various activity areas will contribute positively to the exam anxiety of the students.

Since test anxiety occurs from an early age, training classroom teachers in primary schools and branch teachers in secondary and high schools about exam psychology will reduce test anxiety levels of students.

In order to increase the power of the study to represent the universe, it is recommended to apply to larger sample groups.

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