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## Determining the effect of leisure time management on psychological well-being: the case of Anadolu University students

### *Boş zaman yönetiminin psikolojik iyi oluşa etkisinin belirlenmesi: Anadolu Üniversitesi öğrencileri örneği*

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#### ABSTRACT

This study aims to examine the correlation between students' psychological well-being who study at Anadolu University Yunus Emre Campus and successfully managing their leisure time. A quantitative research design was employed, utilizing convenience sampling to recruit 296 students who completed self-report measures of leisure time management and psychological well-being. Factor analysis demonstrated that leisure time management included a multidimensional structure: goal setting, evaluation, free time attitude, and scheduling. Correlation and regression analysis showed that effective goal setting and a positive attitude towards leisure are important factors predicting higher levels of psychological well-being; however, the evaluation and scheduling dimensions did not significantly contribute. Demographic comparisons also showed married students had greater psychological well-being than unmarried students. These findings highlight the significance of structured, purposeful leisure activities in improving mental well-being among university students and provide practical implications for establishing campus programs and targeted initiatives. The investigated hypotheses indicated that goal setting and positive leisure attitude were validated as important predictors of psychological well-being; however, evaluation and scheduling were not validated. Future investigations should examine other factors that shape this association over the life course, through longitudinal and mixed-methods.

#### ÖZET

Bu çalışmanın amacı, psikolojik iyi oluş ve boş zaman yönetimi arasındaki ilişkiyi, Anadolu Üniversitesi Yunus Emre Kampüsünde öğrenim gören öğrenciler örneğinde incelemektir. Çalışmada, nicel araştırma tasarımı benimsenmiş ve kolayda örnekleme yöntemi ile ulaşılan 296 öğrencinin boş zaman yönetimi ve psikolojik iyi oluş halleri ölçülmüştür. Yapılan açıklayıcı faktör analizi, boş zaman yönetiminin; hedef belirleme, değerlendirme, boş zaman tutumu ve planlama boyutlarını kapsayacak şekilde çok boyutlu bir yapı gösterdiğini ortaya koymuştur. Etkili bir hedef belirlemenin ve boş zamana karşı olumlu tutum sahibi olmanın, psikolojik iyi oluş halini etkileyen önemli faktörler olduğu, değerlendirme ve planlama boyutlarının ise anlamlı bir etkisinin olmadığı ise korelasyon ve regresyon analizleriyle belirlenmiştir. Demografik karşılaştırmalar, evli öğrencilerin evli olmayan öğrencilere kıyasla daha olumlu bir psikolojik iyi oluş haline sahip olduğunu göstermiştir. Bu bulgular, üniversite öğrencileri arasında ruhsal iyi oluş durumunu iyileştirmede yapılandırılmış, amaçlı boş zaman etkinliklerinin önemini vurgulamakta, buna yönelik kampüs programları ve girişimler oluşturmak için pratik çıkarımlar sağlamaktadır. Test edilen hipotezler, hedef belirlemenin ve olumlu boş zaman tutumunun psikolojik iyi oluşun önemli yordayıcıları olarak doğrulandığını, ancak değerlendirme ve planlama boyutlarının psikolojik iyi oluşun yordayıcıları olarak doğrulanmadığını psikolojik iyi oluşun yordayıcıları olarak doğrulanmadığını göstermektedir. Gelecekteki araştırmaların, bu ilişkiyi yaşam boyu şekillendiren diğer faktörleri boylamsal araştırmalarla ve karma yöntem araştırmalarıyla incelemesi önerilmektedir.

## 1. Introduction

Leisure time is defined as the time remaining after work and as a condition characterized by self-sufficiency, intrinsic

motivation, and participation in activities that promote personal well-being (Csikszentmihalyi, 1975; Kelly, 1983). In contrast, modern perspectives have shifted towards understanding leisure as a more accessible and inclusive

domain focused on personal satisfaction, relaxation, and escape from routine (Stebbins, 1997).

The management of leisure time is increasingly recognized in modern higher education as a crucial component for individual development and societal welfare. Recent studies have examined how leisure can help people become more resilient, reduce stress, and enhance their mental health rather than merely focusing on its historical evolution (Newman et al., 2014). University students often face academic, financial, and social pressures; therefore, the ability to plan leisure activities in a balanced and purposeful way improves their academic performance, psychological well-being, and social integration (Misra & McKean, 2000). Effective leisure management strategies promote inclusion, strengthen community bonds, and foster healthier lifestyles on a societal level (Coleman & Iso-Ahola, 1993).

To define leisure, the most insightful approach is to take two different angles. One views it as a behavioral phenomenon that includes discretionary activities aligned with personal preference; the other views it as the other as essentially a qualitative state that is independent of the tasks that are needed to survive. This perspective goes beyond survival and economic success to encompass basic human needs such as pleasure, meaning, and a sense of belonging (Purrington & Hickerson, 2013).

As leisure continues to evolve in the contemporary context, its relationship to well-being warrants close examination. Engaging in recreational activities that promote creativity, rest, and interactions with others has been shown to help reduce stress, enhancing quality of life, and promoting mental health (Iwasaki & Mannell, 2000; Newman et al., 2014). This can be pivotal for student mental health and well-being in universities, where students manage both academic and social commitments. As a result, management of leisure time may play a significant role in their psychological well-being.

This study aims to examine the impact of leisure time management practices on the psychological well-being of university students and to provide empirical evidence that underpins the development of campus-based interventions that enhance resilience and mental health. This study complements existing research on the cultural implications of leisure, such as its cross-cultural nature (Purrington & Hickerson, 2013), and provides important insights for mental health professionals, educators, and policymakers alike. The study identifies two major benefits. First, it offers empirical data on the impact of different leisure management techniques on psychological well-being in a specific academic and cultural context. Second, it lays the groundwork for designing interventions that promote college students' engagement in healthy leisure activities, thereby improving their health and academic performance. The study's results inform future research and policies to enhance students' well-being and mental health within the context of leisure management practices.

## 2. Theoretical Framework

Scholarly interest in recreation from perspectives such as psychology, sociology, and tourism management has been increasing in contemporary society.

### 2.1. Conceptualizing Leisure Time in the Context of Psychological Well-Being

Leisure time refers to activities that are freely chosen, intrinsically motivated, and personally meaningful (Iso-Ahola & Baumeister, 2023). Leisure studies identify independence, choice, and subjective experience as central components of leisure (Neulinger, 1981). Various studies have associated leisure-time activities with positive psychological outcomes. For instance, Iwasaki (2007) concludes that engaging in enjoyable activities is an effective way to relieve stress while enhancing mood and mental health. Leisure time enables people to be creative, pursue their hobbies, and build their self-esteem (Stebbins, 1997). Recreation is essential for socialization and individual development (Caldwell & Witt, 2011). Putnam (2000) identifies the role of leisure-based social interaction in creating social capital and ties within active, thriving communities. Moreover, leisure time and leisure settings foster social interaction, cultural exchange, and inclusion (Glover, 2004). While many tourism studies emphasize broader socio-cultural and contextual significance of leisure time management (Nurlena et al., 2021), the present study examines leisure time management through three complementary theoretical perspectives: Self-Determination Theory, Leisure Satisfaction Theory, and Goal-Setting Theory (Tyack & Mekler, 2024).

Research shows that people typically choose leisure activities that align with their personalities, suggesting that increased psychological well-being through leisure is more closely related to personal fit than to the activity's benefits. This implies a preference-based rather than a causal relationship between recreational activities and psychological health (Trainor et al., 2010). Self-Determination Theory proposes that psychological well-being is promoted when three fundamental psychological needs, freedom, competence, and relatedness, are satisfied (Deci & Ryan, 2000; Ryan & Deci, 2017). Activities that are self-chosen, in line with personal values, and perceived as meaningful are more likely to fulfill these needs and improve well-being. This theory further suggests that leisure activities most effectively contribute to psychological well-being when individuals experience volitional engagement and intrinsic motivation (Ryan et al., 2006). The level of challenge and structure of leisure activities determines the developmental value of these activities for individuals. Participating in challenging activities requiring intense effort and concentration is associated with positive identity formation and psychological benefits. On the other hand, identity development may be adversely impacted by unstructured activities that lack challenge and skill application, such as watching TV. Furthermore, excessive unstructured leisure time has been linked to an increased risk of substance abuse and antisocial behavior (Trainor et al., 2010). Among university students, leisure time that is freely chosen, rather than externally constrained, may serve as a psychological resource that mitigates educational pressure and supports. In this study, the attitude toward the leisure-time dimension reflects the degree to which students regard leisure as a legitimate and meaningful aspect of their lives.

Therefore, this theory serves as a central foundational theory for understanding the anticipated positive association between

leisure attitudes and psychological well-being among university students (Zhong, 2024).

Leisure Satisfaction Theory conceptualizes leisure as a multidimensional experience that covers psychological, social, educational, and emotional needs (Beard & Ragheb, 1980). This perspective suggests that it is not mere participation, but the satisfaction derived from leisure activities, that influences subjective well-being. Moreover, the theory posits a strong correlation between leisure satisfaction and indicators of well-being, such as life satisfaction, happiness, and mental health (Ragheb & Beard, 1982; Tinsley & Tinsley, 1986).

Managing spare time is a crucial strategy for enhancing students' psychological resilience and well-being. Such leisure activities offer opportunities for personal development, engagement with others, and relaxation, all of which are critical elements of good mental health. Research has indicated that engaging in these kinds of activities can lead to lower levels of stress, anxiety, and depression as well as higher levels of enjoyment and life satisfaction (Caldwell, 2005; Newman et al., 2014). In university contexts, leisure satisfaction has been shown to reduce stress, improve mood, and facilitate social integration (Kuykendall et al., 2015). Effective leisure time management can support psychological well-being by enabling personally rewarding and fulfilling activities (Molina-García et al., 2011). A positive orientation toward leisure increases the chance that experiences will be satisfying and promote well-being (Lu & Hu, 2005). Recreational amenities on campus, such as sports centers, green areas, and student unions, offer easily accessible chances for rest, socializing, and physical activity, all of which are essential for mental health. These chances provide a healthy university experience and effectively lessen academic stress by encouraging leisure happiness. For example, engaging in physical activity has been linked to a decrease in anxiety and depressive symptoms, an improvement in mood, and a rise in self-esteem (Biddle & Asare, 2011).

Goal-Setting Theory posits that meaningful, self-endorsed goals enhance motivation, performance, and psychological outcomes by providing a sense of purpose (Locke & Latham, 2002). Empirical research demonstrates that goal setting within leisure contexts also promotes competence and a sense of accomplishment (Heffernan et al., 2018). Within leisure contexts, goal-oriented engagement transforms passive activities into opportunities for self-development. Leisure goals, such as skill-building, health improvement, or creative pursuits, foster engagement and reinforce progress. These objectives align with the competence component of Self-Determination Theory and are anticipated to enhance psychological well-being (Zhang et al., 2021). The goal-setting and technique dimension reflects the extent to which students plan and pursue leisure goals. Goal-Setting Theory provides a rationale for the expected positive relationship with well-being, as goal-oriented leisure can foster a sense of purpose and personal growth (Dong et al., 2024). Self-Determination Theory, Leisure Satisfaction Theory, and Goal-Setting Theory offer a coherent structure for analyzing how leisure time management influences psychological well-being among university students. These theories indicate that leisure

contributes to well-being when it is autonomous, satisfying, and purposefully structured (Terzi et al., 2024; Tyack & Mekler, 2024).

Within this theoretical framework, psychological well-being is conceptualized as a multidimensional outcome influenced by both individual and contextual factors. According to Ryff (1989) and Wang et al. (2011), the characteristics of psychological well-being include self-acceptance, positive relationships with others, personal growth, taking control of one's life, autonomy, and life purpose. Psychological well-being is influenced by many factors, from biological factors to environmental factors. For example, an individual's psychological well-being is influenced by their genetic predispositions (Lykken & Tellegen, 1996). Additionally, psychological well-being is shaped by events experienced and influenced, social support, and culture (Keyes et al., 2002). At the same time, environmental factors such as available resources in the community and working conditions also affect an individual's psychological well-being (Helliwell et al., 2019). An individual's mental health significantly impacts how they think about their psychological well-being. Studies on the effects of mental health on psychological well-being have shown that mental health can promote positive feelings, behaviors, and attitudes (Hofmann et al., 2010; Kabat-Zinn, 2003; Seligman et al., 2005).

University life is often characterized by a combination of social pressures, academic expectations, and obstacles to personal development (Misra & McKean, 2000). Increasing psychological distress has been found to be one of the top issues among university students. Studies showed that academic pressure, changed sleep patterns, and self-perception are associated with higher depression, anxiety, and stress levels. As an illustration, Koksal and Topkaya (2021) state that negative mental health outcomes are significantly correlated with common problems faced by students, namely, exam anxiety and sleep problems. A report by Özel et al. (2020) similarly showed a high prevalence of depressive symptoms and anxiety among students, highlighting the vulnerability of students during their formative academic years. In support of these findings, Erkan et al. (2012) found that despite experiencing considerable emotional, academic, and economic difficulties, students have only a low willingness to seek formal psychological help. Instead, they often resort to the support of family and friends.

Enhancing psychological well-being during university life is of great importance. Managing leisure time has the potential to significantly reduce stress and improve the quality of life for students. However, previous studies in the literature have not sufficiently addressed the management of leisure time and psychological well-being among students. Students' psychological well-being is greatly enhanced by the unique leisure opportunities that the campus environment offers. Moreover, the social connections formed through these activities can reduce social isolation and loneliness, providing students with a sense of community and belonging (Huang & Humphreys, 2012). For those in university, balancing their activities to align with their beliefs and development goals is a critical skill encompassing how to spend their free time on campus, and can include joining club groups or campus

communities. This deliberate alignment is said to augment feelings of relatedness, competence, and autonomy, which Ryan and Deci (2000) identify as the three primary parts of psychological well-being. Moreover, engaging in these activities gives students tools for coping and skills for life that enhance their resilience and sense of well-being and provide respite from everyday struggles (Iwasaki, 2006). Leisure Satisfaction conceptualizes the fulfillment derived from leisure activities as a major contributor to positive psychology, which provides a substantial contribution to psychological health. Positive involvement in campus events has been linked to better mental health, lower stress levels, and more happiness (Ragheb & Beard, 1982; Newman et al., 2014). Kaas & İçigen (2022) performed meta-analyses discussion regarding the relationship between leisure satisfaction and life satisfaction based on university students and other populations. Their analysis yielded a medium effect size reflecting a strong positive relationship between leisure satisfaction and overall life satisfaction, based on 21 studies and a total sample of over 83,000 people. While the study was limited to life satisfaction as an outcome, the findings emphasize the importance of leisure experiences more broadly for subjective well-being. These findings support the hypothesis that promoting satisfying leisure experiences through well-managed leisure time is an important contributor to students enhanced psychological well-being.

Incorporating structured leisure time into the campus experience serves as a crucial balancing factor against academic stress by offering students a sense of control over their time and activities. This sense of control is associated with lower stress levels and higher satisfaction with university life (Kleiber et al., 2002). Therefore, universities that facilitate and promote effective leisure time management on campus play a crucial role in supporting students' psychological well-being and leisure satisfaction. If the relationship between leisure time management and psychological well-being is statistically identified, the importance of effective leisure time management within the campus for university students can be emphasized. In this case, recommendations can be made to practitioners for planning students' leisure time management. Moreover, identifying this relationship will allow for a detailed examination of the underlying causes of students' psychological well-being, paving the way for future research projects focused on improving mental health through leisure time.

Given the unique challenges faced by university students and the significant role that well-managed leisure time can play in promoting psychological well-being, it is essential to investigate the fundamental mechanisms and results related to leisure activities in this demographic. Based on previous studies on leisure and psychological well-being, the current study aims to explore the role of leisure time and its effect on university students' happiness and psychological health. The research objective is to examine the correlation between students' well-being and their ability to manage and prioritize their lives, as well as the methods by which they engage in leisure activities. This study focuses on the positive effects of effective time management on mental health and satisfaction with life, which can be especially beneficial for students experiencing the important personal and academic

development period at Yunus Emre Campus of Anadolu University. Therefore, the study aims to find new ways to support more resilience and mental health in higher education institutions by examining these dynamics. Based on the theoretical foundations and empirical findings discussed above, the study proceeds to develop specific hypotheses to explore how effective leisure time management practices impact university students' psychological well-being.

## 2.2. Development of Research Hypotheses

The relationship between leisure time management and psychological well-being is detailed and multifaceted. It can be understood primarily through Self-Determination Theory, while also being informed by complementary psychological perspectives. Related research suggests that individuals experience higher levels of well-being when engaging in activities aligned with their personal values and interests (Sheldon & Elliot, 1999).

For university students, effective leisure time management enables them to pursue self-concordant activities, fostering feelings of autonomy, competence, and relatedness, which are core psychological needs emphasized within Self-Determination Theory (Deci & Ryan, 2000). Accordingly, effective leisure-time management affects an individual's psychological state and can contribute to psychological well-being by promoting balance, recovery, and sustained engagement in valued activities. Empirical studies, such as those by Misra and McKean (2000), have found a positive correlation between leisure management and indicators of mental health and life satisfaction among university students. This theoretical and empirical foundation structures the primary hypothesis:

*H<sub>1</sub>: Effective management of leisure time positively influences the psychological well-being of university students.*

Locke and Latham (2002) emphasize the importance of specific and challenging goals, clearly establishing the role of goal setting in motivation. Purposeful leisure goals can transform passive activities into active pursuits that promote well-being. Psychological well-being is associated with the experiences of feeling accomplished and networking, as asserted by Heffernan et al. (2018). These outcomes are actualized through goal-oriented leisure participation. Accordingly, individuals who engage in purposeful leisure experiences are more likely to experience personal growth and self-development, which are central components of psychological well-being (Ryff, 1989). In addition, these activities also increase the chance of achieving the state of flow, the complete absorption and enjoyment in the task at hand, as described by Csikszentmihalyi (1990). Research on serious leisure (Stebbins, 2007) supports this idea: activities with goals of personal meaning result in deep fulfillment and accomplishment. Thus, the first sub-hypothesis is as follows:

*H<sub>1-a</sub>: The clarity and purposefulness of leisure goal setting have positive effects on students' psychological well-being.*

Another important time management component that has a direct impact on mental health is utilizing periods of evaluation effectively. Goodin et al. (2008) contend that how people perceive and spend their time significantly affects their

emotions and quality of life. For learners confronted with broken schedules following challenging coursework, effective time use of small blocks of time for leisure can reduce stress triggered by time-use pressures (Jex & Elacqua, 1999). According to Hall and Fong (2007), temporal self-regulation theory holds that temporal self-regulation theory holds that individuals who manage their time well (including how they use time) tend to have better health status and a better quality of life. In support of this, Zawadzki et al. (2015) find that those who feel in control of their time experience greater happiness and lower anxiety. Recent studies indicate that leisure satisfaction significantly affects life satisfaction among university students who participate in recreational activities (Yaşartürk et al., 2024). Consequently, the second sub-hypothesis is as follows:

*H<sub>1-b</sub>: The Evaluation dimension of leisure time management is positively related to students' psychological well-being.*

Fredrickson's (2001) broaden-and-build theory of positive emotions states that experiencing positive emotions widens individuals' thought-action repertoires and builds enduring personal resources, such as social connections and resilience. Perceiving leisure as rewarding and fulfilling can spark positive feelings and cultivate constructive attitudes and behaviors that promote well-being. Moreover, Beard and Ragheb (1980) suggested that a positive attitude toward leisure is the most important requirement for leisure to be a source of satisfaction and psychological well-being. Accordingly, the third sub-hypothesis is as follows:

*H<sub>1-c</sub>: Students with positive attitudes towards leisure will have higher psychological well-being.*

While planning is often beneficial, excessive planning in leisure can harm psychological health. Over-planning leisure activities in pursuit of the "best" experiences may reduce spontaneous enjoyment and increase stress. This can undermine the intrinsic value of leisure.

Coleman and Iso-Ahola (1993) found that individuals who feel compelled to maximize their leisure time often report lower happiness and well-being. Kubey and Csikszentmihalyi (1990) discuss how overly structured leisure can lead to feelings of alienation or boredom. Recent evidence shows that actively engaging in leisure fosters autonomy, competence, and life satisfaction. This reinforces the connection between positive leisure involvement and enhanced psychological outcomes (Kara & Sarol, 2021). This understanding informs the fourth sub-hypothesis:

*H<sub>1-d</sub>: A proactive approach to leisure planning affects students' psychological well-being.*

### 3. Methods

A quantitative research method is adopted in this study, and correlation and regression analyses are performed to test the possible relationships between variables. Additionally, exploratory factor analysis is conducted to identify sub-dimensions (goal setting and technique, evaluation, free-time attitude, and scheduling) of leisure-time management. Moreover, responses to questions containing demographic information are used for binary or multiple-group

comparisons. Permission was obtained from the Anadolu University Social and Human Sciences Ethics Committee with the decision numbered 9707655 in its meeting dated 17/04/2024 to conduct the study regarding data collection, tools, and methods.

#### 3.1. Participants

The participants of this study are students of Anadolu University. A total of 303 Anadolu University students aged 18 or older, at the associate, undergraduate, and graduate levels, from various departments of the University, participated in the research. The selected sample size is thought to be sufficient to achieve statistical significance and to carry out comparison analyses between groups (Singh & Masuku, 2014). In addition, appropriate sample size calculations ensure that this sample size is greater than 10 times the total number of items (Kotrlík et al., 2001).

The convenience sampling approach is used for sampling (Wu et al., 2021), and the survey technique is used for data collection. To this end, a questionnaire is distributed in common areas on campus and completed face-to-face by voluntary participants, both on paper and online. The survey link is distributed to potential participants via the online platforms of relevant student communities, social media, or word of mouth. This approach ensures access to students from different departments, thereby broadening the scope of the research. To fulfill this approach, Google Forms, a reliable platform, is used to create and distribute online questionnaires. Of the 303 questionnaires gathered between 10 May 2024 and 10 September 2024, 7 were discarded due to missing values. Therefore, 296 responses were analyzed for this research.

#### 3.2. Measurement

The Leisure Time Management Scale and the Psychological Well-Being Scale are the two scales used in this study. The purpose of the Leisure Time Management Scale (LTMS), a self-report questionnaire created by Wang et al. (2011) and translated into Turkish by Akgül and Karaküçük (2015), is to evaluate students' management of their free time. A 5-point Likert scale, with 1 representing "strongly disagree" and 5 representing "strongly agree," is used to score each of the 15 items. The Psychological Well-Being Scale (PWB) assesses important aspects of socio-psychological functioning from a person's perspective. It was created by Diener et al. (2010) and translated into Turkish (Telef, 2013). It has eight items with ratings on a 7-point Likert scale. A high score on the single-factor scale signifies the possession of psychological resources and strength by the individual (Sarıkan, 2023).

#### 3.3. Data Analysis

Due to its user-friendly interface, Jamovi software was used for statistical tests. Descriptive statistics were employed for analysis. The sub-dimensions of leisure time management were revealed through exploratory factor analysis. This was followed by confirmatory factor analysis to test the construct validity of the measurement model. Pearson correlation and simple linear regression were used to evaluate the relationship between leisure time management and psychological well-being, with a significance level of 0.05. According to Kline (2023), skewness values between -3 and +3 and kurtosis

**Table 1.** Demographic analysis

Variable	Category	n	%
Gender	Female	157	53.0
	Male	109	36.8
	Other/Not Specified	30	10.1
Age	18-24	202	68.5
	25 and Above	93	31.5
Marital Status	Married	51	17.2
	Single	245	82.8
Education Level	Undergraduate	176	59.5
	Master's	75	25.3
	PhD	45	15.2
Class Level	1 <sup>st</sup> Year	109	36.8
	2 <sup>nd</sup> Year	61	20.6
	3 <sup>rd</sup> Year	71	24.0
	4 <sup>th</sup> Year	54	18.2
Faculty	Faculty of Pharmacy	45	15.2
	Faculty of Humanities	30	10.1
	Faculty of Education	42	14.2
	Faculty of Fine Arts	24	8.1
	Faculty of Law	24	8.1
	Faculty of Economics and Administrative	44	14.9
	Faculty of Communication Sciences	25	8.4
	Faculty of Health Sciences	33	11.1
	Faculty of Tourism	10	3.4
	Faculty of Graduate School	19	6.4

Source: Created by authors

between -10 and +10 are considered acceptable for normality, and Kolmogorov-Smirnov tests were also examined to test the normality assumption. Additionally, one-way ANOVA was employed for multiple group comparisons between demographic and research variables.

#### 4. Results

In this study, Leisure Time Management and Psychological Well-being were based on different Likert scales; LTMS was a 5-point Likert scale, while PWB was based on a 7-point Likert scale. Z-score standardization was used to meet the requirement of comparability and avoid the possible bias brought about by the different ranges in the scale. This method converts raw data into a standard form by subtracting the mean and dividing by the standard deviation, resulting in a standard normal distribution with a mean of 0 and a standard deviation of 1 (Schober et al., 2021). By applying the Z-scores, it was ascertained that the relations of leisure time management to psychological well-being were duly represented without the

inherent differences of their scale measurement (MacCallum et al., 1996). The standardized means for all variables are set at zero, and standard deviations are equal to one, as expected from Z-scores. This allows researchers to observe the range of data for each subdimension and PWB.

Table 1 shows the descriptive statistics and normality test results for the areas of leisure time management and psychological well-being. The skewness values were between -0.668 and -0.173, and the kurtosis values were between -0.619 and 0.341. These results are well within the widely accepted limits of  $\pm 3$  for skewness and  $\pm 10$  for kurtosis (Kline, 2023), which means that the data are very close to a normal distribution. As a result, the normality assumptions were satisfied, and the variables were considered suitable for subsequent parametric analyses, including correlation and regression tests. The presentation of these indices bolsters the reliability of the statistical methods utilized in the study by illustrating that the distributions of the observed variables are suitable for inferential analysis.

#### 4.1. Demographic Analysis

Table 2 shows the demographic characteristics of the 296 students who participated in the study. When table 2 is analyzed, it is seen that the gender distribution of the participants is 53.0% female, 36.8% male and 10.1% other. Reporting this third group is important even though it is smaller because it shows that everyone is welcome and that there are students who either don't fit into the binary categories or don't want to share their gender because it accurately reflects the demographic diversity of the sample.

In terms of age distribution, the sample consists of 296 people in total. In terms of marital status, 82.8% of the participants were single and 17.2% were married. In terms of education level, 59.5% of the participants had a bachelor's degree, 25.3% had a master's degree and 15.2% had a doctorate degree.

When the distribution by grade level is analyzed, the highest rate belongs to first year students with 36.8%, followed by third year students with 24.0% and second-year students with 20.6%. At the graduate level, the distribution of classes varies from that of undergraduate cohorts. The sample included

**Table 2.** Confirmatory factor analysis

Factor	Indicators	C. Alpha	Estimate	SE	Z
Goal Setting & Technique	LTMS1	0.722	0.545	0.0582	9.35
	LTMS2		0.611	0.0630	9.71
	LTMS3		0.627	0.0544	11.51
	LTMS4		0.688	0.0594	11.59
	LTMS5		0.482	0.0622	7.76
	LTMS6		0.568	0.0598	9.50
Evaluation	LTMS7	0.821	0.494	0.0407	12.12
	LTMS8		0.557	0.0426	13.07
	LTMS9		0.771	0.0327	23.56
Free Time Attitude	LTMS10	0.778	0.707	0.0498	14.20
	LTMS11		0.680	0.0477	14.28
	LTMS12		0.753	0.0507	14.83
Scheduling	LTMS13	0.803	0.715	0.0495	14.44
	LTMS14		0.785	0.0504	15.58
	LTMS15		0.760	0.0493	15.43
Psychological well-being		0.920			

Source: Created by authors

**Table 3.** Correlation matrix

Variables	1	2	3	4	5
1. Goal Setting	-				
2. Evaluating	r = 0.709***	-			
3. Free Time Attitude	r = 0.688***	r = 0.779***	-		
4. Scheduling	r = 0.684***	r = 0.807***	r = 0.807***	-	
5. Psychological well-being	r = 0.265***	r = 0.188**	r = 0.245***	r = 0.189**	-

Source: Created by authors

master’s and doctoral students, but they do not follow the same class-year structure, so their representation was listed separately.

In the distribution by faculties, the highest rate belongs to the Faculty of Pharmacy with 15.2%, followed by the Faculty of Economics and Administrative Sciences with 14.9%, the Faculty of Education with 14.2% and the Faculty of Health Sciences with 11.1%. The proportions of other faculties vary between 3.4% and 10.1%. This data shows the diversity of the participants according to their demographic characteristics.

An examination of Table 3, which displays the distribution of licensed academics by their affiliated Chambers of Tourist Guides, reveals that these academics are registered with a total of 12 separate chambers, with the highest number of registrations, 17 members (17.35%), belonging to Ankara Chamber of Tourist Guides (ANRO). This situation reflects the widespread presence of undergraduate-level tourism guiding programs and professional chambers across various regions and provinces of Türkiye.

According to Table 4, which presents data on the foreign languages listed on the licenses of the academic staff, it is understood that 89.80% of them are licensed to guide only in English, and a total of seven varied foreign languages are represented. This situation is thought to be related to the emphasis placed on English in the curricula during tourist guiding education. However, in the context of Türkiye’s diverse tourism markets, the diversification of foreign language skills presents a significant potential for enhancing the professional competencies of both academics and students.

**4.2. Exploratory and Confirmatory Factor Analysis Results**

As described in the methodology section, exploratory and confirmatory factor analyses were conducted to examine the factor structure and construct validity of the measurement instruments. According to the confirmatory factor analysis results in Table 3, the factor loadings of the four sub-dimensions of the leisure time management scale were analyzed. While the factor loadings of the Goal Setting and Technique dimension ranged between 0.482 and 0.688, the factor loadings of all items were above 0.40 and significant ( $p < .001$ ) (Hu & Bentler, 1999; Hair et al., 2019). This shows that the Goal Setting and Technique dimension has a high construct validity.

The factor loadings of the Evaluation dimension were between 0.494 and 0.771, with the highest factor loading observed in LTMS9 (0.771). This dimension also provides strong support for construct validity. The factor loadings of the Leisure Time Attitude dimension ranged between 0.680 and 0.753, with the highest loading on LTMS12 (0.753). This result shows that the dimension provides construct validity.

Finally, in the Scheduling dimension, the factor loading ranged between 0.715 and 0.785, and the LTMS14 item stood out with the highest loading value (0.785). These findings support the construct validity of the Scheduling dimension. In general, the factor loadings of each sub-dimension were significant and sufficiently high, indicating that the four-factor structure of the leisure time management scale was confirmed and that the measurement tool provided construct validity.

The measurement model exhibited exceptional fit, with  $\chi^2(84) = 112, p = .023, CFI = .988, TLI = .985, SRMR = .033,$  and  $RMSEA = .033$  (90% CI [0.013, 0.049]). The findings demonstrate that the suggested four-factor framework for leisure time management is robustly supported by the data and offers a valid measurement model (Hu & Bentler, 1999).

Moreover, Table 3 demonstrates that the Cronbach’s Alpha values of the leisure time management and psychological well-being scales provide sufficient reliability. In particular, the Cronbach’s Alpha values of the sub-dimensions of leisure time management were found to reach sufficient reliability levels as Goal Setting and Technique (0.722), Evaluation (0.821), Leisure Time Attitude (0.778), and Scheduling (0.803), respectively. The reliability of the psychological well-being scale was quite high and was calculated as 0.920. learning, and motivational support.

**4.3. Correlation and Regression Analyses**

Pearson correlation analysis was applied to investigate the relationships between the sub-dimensions of Leisure-Time Management (Goal Setting, Evaluation, Free Time Attitude and Scheduling) and Psychological Well-Being (PWB). Table 4 demonstrates the correlation matrix. The findings suggest a positive and significant correlation among the four sub-dimensions of Leisure Time Management with each other ( $r = 0.684$  to  $r = 0.807, p < .001$ ). This means that those students who are active in one aspect of leisure-time management are also likely active in others. For Psychological Well-Being (PWB), the most positive correlation was found with Goal

**Table 4.** Regression results of the relationships between leisure-time and psychological well-being

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Overall Model Test			
				F	df1	df2	p
Leisure Time Management on Psychological well-being	0.287	0.0826	0.0699	6.55	4	291	<.001

Note. Models estimated using sample size of N=296

Source: Created by authors

**Table 5.** One way Anova

Variable	Factor	Welch's F	Fisher's F	df1	df2	Levene's p
Goal Setting & Technique	Gender	0.464	0.471	2	293	.439
	Education Level	2.596	2.187	2	293	.558
	Faculty	1.514	1.527	9	286	.429
	Marital Status	7.01	5.53	1	294	.226
Evaluating	Gender	2.688	2.634	2	293	.449
	Education Level	0.787	0.798	2	293	.254
	Faculty	1.938	1.761	9	286	.664
	Marital Status	9.00	8.82	1	294	.569
Free Time Attitude	Gender	1.858	1.188	2	293	.081
	Education Level	2.105	1.909	2	293	.224
	Faculty	1.759	1.854	9	286	.474
	Marital Status	6.59	4.66	1	294	.004*
Scheduling	Gender	1.917	1.547	2	293	.012*
	Education Level	2.099	1.815	2	293	.005*
	Faculty	1.407	1.456	9	286	.028*
	Marital Status	7.60	5.90	1	294	.007*
Psychological Well-Being	Gender	21.261	18.513	2	293	.192
	Education Level	4.122	3.923	2	293	.300
	Faculty	0.742	0.654	9	286	.602
	Marital Status	30.29	21.67	1	294	.004*

Source: Created by authors

Setting ( $r = 0.265, p < .001$ ), and Free Time Attitude ( $r = 0.245, p < .001$ ). The associations of PWB with Evaluation ( $r = 0.188, p < .01$ ) and Scheduling ( $r = 0.189, p < .01$ ) were less pronounced but still statistically significant. For those students who do make the most of their free time, especially through a positive attitude and priority setting, their profile is associated with higher levels of psychological well-being.

To evaluate the predictive power of Leisure Time Management sub-dimensions on Psychological Well-Being (PWB), a multiple linear regression analysis was applied. The results and overall model fit are presented in Table 5.

The regression model was statistically significant,  $F(4, 291) = 6.55, p < .001$ , suggesting that together they contribute to 8.26% of the variance in Psychological Well-Being ( $R^2 = 0.0826, Adjusted R^2 = 0.0699$ ). This explains a portion of the variance in psychological well-being, indicating that other unmeasured factors also contribute, though there are other unmeasured factors that draw predictions from well-being in terms of leisure time management.

When each predictor was analyzed separately, Goal Setting had the strongest and significant effect on PWB ( $\beta = 0.2243, p = 0.008$ ); this suggests that the students who plan their leisure time are psychologically more stable. Free Time Attitude also approached statistical significance ( $\beta = 0.2051, p = 0.051$ ) suggesting a possible positive relationship with PWB. Lastly, both Evaluation ( $\beta = -0.0757, p = 0.478$ ) and Scheduling ( $\beta = -0.0685, p = 0.533$ ) were non-significant predictors of PWB. Key Points: Structured leisure time goal setting is associated with a greater psychological well-being than leisure time activity evaluation and scheduling.

#### 4.4. Comparison Between Groups

One-way ANOVA was employed to see whether dimensions of leisure time management and psychological well-being

significantly differ based on demographic variables such as gender, education, faculty, and marital status. Levene's test was used to examine the equality of variances and both Welch's and Fisher's F-tests were applied due to differences in variance homogeneity.

Homogeneity of variances was assessed using Levene's test. If the assumption of homogeneity of variance was violated ( $p < .05$ ), indicating that being a member of the faculty does not have a meaningful effect on these variables.

As shown in Table 6 is, there were significant differences in all leisure time management sub-dimensions and psychological well-being by marital status ( $p < .05$ ). Specifically, there was significantly greater psychological well-being among married participants than single participants (Welch's  $F = 30.29, p < .001$ ; Fisher's  $F = 21.67, p < .001$ ). This pattern may reflect the protective role of close social support and relatedness in well-being, which is consistent with Self-Determination Theory's emphasis on relatedness as a basic psychological need (Ryan & Deci, 2017; Diener & Seligman, 2002). The effects indicate that marital status has the greatest impact on how leisure time is prioritized and allocated and psychological health. Psychological well-being was higher in men than women while the effect of education level was minimal. Leisure time management or well-being was not influenced by faculty differences. Thus, these findings emphasize that personal circumstances, particularly marital status, play a significant role in psychological well-being.

### 5. Conclusions and Discussion

This study investigated the association between leisure-time management and psychological well-being among university students, utilizing Self-Determination Theory, Leisure Satisfaction Theory, and Goal-Setting Theory as theoretical

frameworks. The results demonstrate that, although overall leisure-time management is significantly related to psychological well-being, the contributions of its subdimensions are not uniform. Specifically, Goal Setting and positive leisure attitudes were significant predictors of psychological well-being, whereas the Evaluation and Scheduling dimensions did not have significant effects. These findings underscore the significance of qualitative and motivational dimensions of leisure engagement, as opposed to a sole focus on organizational aspects.

The significant relationship between overall leisure time management and psychological well-being supports the core proposition of Self-Determination Theory, which posits that well-being is enhanced when individuals experience autonomy, competence, and meaningful engagement in their activities (Deci & Ryan, 2000; Ryan & Deci, 2017). For university students, managing leisure time effectively may serve as a compensatory mechanism that alleviates academic stress and restores psychological resources.

However, the model's relatively modest explanatory power ( $R^2 = 8.26\%$ ) warrants careful theoretical interpretation rather than methodological concern. Psychological well-being is a multidimensional construct influenced by a wide range of personal, social, and environmental factors, including personality traits, social support, academic pressures, and life circumstances (Ryff & Keyes, 1995). Consequently, leisure time management is only one of many contributors to well-being. Similar studies in the well-being literature frequently report modest effect sizes when examining single behavioral predictors, particularly in cross-sectional designs (Diener et al., 2010; Newman et al., 2014).

The significant effect of the goal setting and technique dimension on psychological well-being is consistent with Goal-Setting Theory, which emphasizes the motivational and psychological benefits of engaging in purposeful, self-endorsed goals (Locke & Latham, 2002). Leisure activities that are guided by clear goals may enhance students' sense of competence and personal growth, thereby contributing to higher levels of psychological well-being.

Goal-oriented leisure engagement may satisfy the need for competence by providing feedback, structure, and a sense of achievement. For university students, leisure goals such as skill development, physical activity, or creative expression may transform leisure time into a source of personal fulfillment rather than passive consumption. Previous studies similarly suggest that goal-directed leisure participation is associated with higher subjective well-being and life satisfaction (Heffernan et al., 2018). The present findings extend this literature by demonstrating the relevance of goal setting specifically in the context of leisure-time management among university students.

The positive relationship between leisure attitude and psychological well-being strongly supports Leisure Satisfaction Theory, which emphasizes that the subjective evaluation of leisure experiences plays a central role in determining their psychological benefits (Beard & Ragheb, 1980). Students who perceive leisure as valuable, legitimate, and emotionally rewarding are more likely to experience

leisure as a source of recovery and satisfaction.

This finding is further supported by Self-Determination Theory, as a positive leisure attitude may enhance autonomous motivation and reduce feelings of guilt or external pressure associated with non-academic time use. Empirical evidence consistently demonstrates that positive leisure perceptions are associated with greater happiness, lower stress levels, and improved mental health (Ragheb & Beard, 1982; Newman et al., 2014). The present study reinforces these findings in a university context, highlighting the importance of not only how leisure is managed but also how it is perceived by students.

Contrary to expectations, the use of evaluation and scheduling did not significantly predict psychological well-being. These findings may be explained through the lens of Self-Determination Theory, which emphasizes that activities lacking intrinsic motivation or personal meaning are less likely to enhance well-being (Ryan et al., 2006).

The use of the Scheduling dimension for leisure purposes may be characterized by low emotional engagement, fragmented attention, or instrumental time use, limiting its capacity to satisfy autonomy or competence needs. Similarly, while planning is often regarded as beneficial in academic and occupational domains, excessive or rigid planning in leisure contexts may undermine spontaneity and intrinsic enjoyment. Prior research suggests that over-structuring leisure experiences may increase cognitive burden and reduce perceived enjoyment, particularly among individuals already exposed to high scheduling demands (Schwartz, 2004; Coleman & Iso-Ahola, 1993). Collectively, these findings indicate that the benefits of leisure-time management are not uniform across all forms, and emphasize the primacy of motivational quality over organizational efficiency within leisure contexts.

The analysis identified significant differences in psychological well-being according to gender and marital status, necessitating theoretical consideration. The literature has consistently documented gender differences in well-being, with women frequently reporting greater emotional awareness and engagement in leisure activities, factors which may contribute to variations in well-being outcomes. Variations in leisure preferences, coping mechanisms, and emotional expression may partially explain these observed differences. In addition to leisure-time management dimensions, demographic differences, particularly gender and marital status, were associated with psychological well-being and should be considered when interpreting the findings.

Also, married students reported higher psychological well-being than their unmarried counterparts. From the perspective of Self-Determination Theory, marriage may enhance psychological well-being by fulfilling the need for relatedness, providing emotional support, and fostering a sense of stability and belonging (Ryan & Deci, 2017). Social support has been consistently identified as a protective factor for mental health and well-being (Diener & Seligman, 2002). In university contexts, married students may benefit from stronger interpersonal resources that buffer academic and life-related stressors.

The objective of this study is to examine the influence of leisure time management on the psychological well-being of students at Anadolu University. Taken together, these results provide partial evidence for the primary hypothesis (H1) that effective management of free time is positively associated with psychological well-being. When thoroughly assessed, the sub-hypotheses exhibited varied outcomes. H1a, which posited that goal setting would positively correlate with psychological well-being, was validated. H1c, which posited that a positive attitude towards leisure time would correlate with psychological well-being, was also at significant level. Nonetheless, H1b (evaluation) and H1d (scheduling) lacked support, suggesting that not all aspects of leisure time management have an equivalent impact on well-being. Specifically, regression analysis showed that the Goal Setting dimension was a significant predictor of psychological well-being ( $\beta = 0.2243$ ,  $p = 0.008$ ), and the Free Time Attitude dimension approached significance ( $\beta = 0.2051$ ,  $p = 0.051$ ). The results also indicated that setting clear goals regarding extracurricular activities and maintaining a positive outlook toward free time situations would be positively correlated with psychological well-being.

The non-significance of the Evaluation and Scheduling dimensions suggests that not all dimensions of leisure time management may impact well-being in a similar way. This result parallels earlier studies which demonstrate that structured goal setting and positive psychology have greater effects on lowering stress and improving emotional state than simply categorizing or judging leisure activities (Iwasaki, 2007; Newman et al., 2014).

Additionally, while the regression model was statistically significant, it only accounted for a modest 8.26% of the variance in psychological well-being ( $R^2 = 0.0826$ ). This suggests that although leisure time management enhances psychological well-being, its predictive capacity is constrained, and other psychological or contextual factors probably exert a more significant influence (Newman et al., 2014; Kline, 2023). Consequently, subsequent studies ought to incorporate additional variables or larger samples to enhance explanatory robustness.

The demographic analyses added further depth to the discussion. Married respondents reported much higher levels of psychological well-being than single respondents did. This finding indicates that the positive aspects of recreational pursuits go beyond simply physical or mental relaxation but also serve as means for social connectedness and support. Additionally, these social advantages are not limited to in-person meetings; online social networks can provide these same beneficial opportunities for connection and the establishment of community. So, when developing interventions tailored for optimal use of free time, it is crucial to ensure that both analogue and virtual components can provide for social connectedness.

These results are consistent with recent research indicating that leisure satisfaction enhances overall life satisfaction among student populations (Yaşartürk et al., 2024), and that fulfilling fundamental psychological needs through leisure positively influences well-being (Kara & Sarol, 2021). Additionally, the non-significant dimensions may indicate that

passive or poorly structured leisure can result in boredom and diminished life satisfaction (Özavcı & Özdayı, 2023).

### 5.1. Theoretical Implications

This study offers new perspectives on leisure, psychological well-being, and student life in higher education. The results show that the benefits of leisure depend not just on how often or how long students participate, but also on their attitudes and motivations toward these activities (Beard & Ragheb, 1980; Newman et al., 2014). Students with positive attitudes toward leisure tend to have higher psychological well-being, which shows how important personal views are in the link between leisure and well-being.

The findings also support Self-Determination Theory by showing that how students manage their leisure time helps meet their basic psychological needs. Leisure activities that offer autonomy and genuine enjoyment, instead of strict schedules or using time only for practical reasons, are more closely linked to psychological well-being (Deci & Ryan, 2000; Ryan & Deci, 2017). This means that managing leisure time is important for fulfilling psychological needs, not just in academic or work settings.

Finally, the results show that not all parts of leisure time management affect psychological well-being in the same way. The quality of motivation during leisure activities matters more than how efficiently time is managed or how much planning is involved. This suggests that future research should pay more attention to the motivational and experiential sides of leisure, instead of focusing only on traditional time-management methods (Locke & Latham, 2002; Newman et al., 2014).

### 5.2. Practical Implications

This study's findings have several practical implications for university administrators, campus recreation planners, and student support staff. To improve student psychological well-being, it is better to focus on meaningful, self-directed leisure opportunities instead of just offering more recreational activities. Programs that help students set personal leisure goals, such as learning new skills, expressing creativity, or improving physical health, may boost psychological outcomes more than unstructured or purely entertainment-based options.

The strong link between leisure attitudes and psychological well-being means universities should also focus on how students view leisure in their mental health efforts. Orientation sessions, workshops, and counseling can help by presenting leisure as an important and worthwhile part of student life. This approach may help reduce feelings of guilt or conflict between leisure and academic work.

Campus recreation teams should design leisure programs that encourage autonomy and self-motivation, instead of relying on strict schedules or required participation. Flexible, student-led activities may support well-being better than highly structured programs that feel like extra academic work. The findings suggest that making leisure too rigid can take away its restorative and mental health benefits.

Finally, since psychological well-being varies by gender and marital status, universities may need to offer targeted support.

Creating inclusive leisure and well-being programs that consider different social roles, relationship statuses, and coping needs can help meet the needs of all students.

### 5.3. Limitations and Future Research

While this study makes valuable contributions, it also has some limitations. Since convenience sampling was utilized and collected data from only one university campus, the findings may not apply to other settings. Future research should use probability sampling and include more institutions to improve external validity.

Another limitation is the cross-sectional design, which makes it hard to draw conclusions about cause and effect. Although theoretical explanations are provided, future studies should use longitudinal or experimental designs to better understand how leisure time management affects psychological well-being.

A third limitation is that the study explains only a small part of what affects psychological well-being. Many other factors, such as personality, academic workload, and social support, also play important roles. Future research should include more variables and use mixed methods to better understand the motivational and emotional processes that link leisure and well-being.

**Ethics Statement:** Permission for the survey method used in this study was obtained from the Ethics Committee of the Anadolu University with the decision numbered 9707655 in the meeting dated 17/04/2024 and TO&RE Journal has no responsibility and all responsibility belongs to the authors of the study.

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