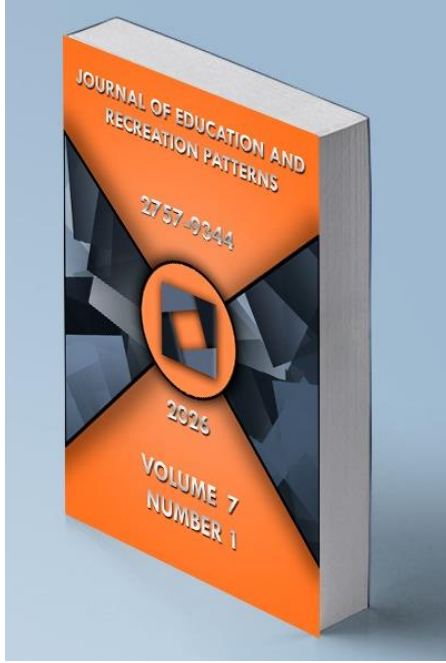




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Leisure Time Participation, Psychological Needs and Life Satisfaction in Pre-service Teachers

Vildan AKBULUT¹, Selin DOĞAN², Sonnur KÜÇÜK KILIÇ³, Erman ÖNCÜ⁴

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¹Assistant Professor, Erzincan Binali Yıldırım University, Faculty of Sport Sciences, vildan.akbulut@ebyu.edu.tr,

²Master's Student, Erzincan Binali Yıldırım University, Institute of Health Sciences, doganselin24@gmail.com,

³Associate Professor, Erzincan Binali Yıldırım University, Faculty of Sport Sciences, sonnur.kucukkilic@erzincan.edu.tr,

⁴Professor, Trabzon University, Faculty of Sport Sciences, concu@trabzon.edu.tr,

¹Assistant Professor, Erzincan Binali Yıldırım University, Faculty of Sport Sciences, vildan.akbulut@ebyu.edu.tr, <https://orcid.org/0000-0001-6049-9489>

²Master's Student, Erzincan Binali Yıldırım University, Institute of Health Sciences, doganselin24@gmail.com, <https://orcid.org/0009-0005-6438-8328>

³Associate Professor, Erzincan Binali Yıldırım University, Faculty of Sport Sciences, sonnur.kucukkilic@erzincan.edu.tr, <https://orcid.org/0000-0002-0355-0492> Corresponding Author

⁴Professor, Trabzon University, Faculty of Sport Sciences, concu@trabzon.edu.tr, <https://orcid.org/0000-0002-7932-5558>

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Leisure Time Participation, Psychological Needs and Life Satisfaction in Pre-service Teachers

Vildan Akbulut¹, Selin Doğan², Sonnur Küçük Kılıç³, Erman Öncü⁴

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ABSTRACT

It is thought that, in addition to the responsibilities of daily life, pre-service teachers who try to keep up with the intensity of school life will be able to effectively utilize their remaining limited free time, which will contribute positively to their psychological needs and life satisfaction. Based on this, the aim of this study is to examine leisure time participation, psychological needs and life satisfaction of pre-service teachers according to some variables and to determine the relationship between them. The study group consists of 451 pre-service teachers (288 women and 163 male). Need Satisfaction Scale (NSS) and Life Satisfaction Scale (LSS) were used as data collection tools. Descriptive statistics, t-test, ANOVA, Pearson and Spearman Correlation tests were used to data analyses. It was determined that the psychological needs and life satisfaction levels of preservice teachers were relatively moderate. While participants' psychological needs and life satisfaction levels didn't differ significantly according to gender and grade variables, they differed significantly according to income. Psychological need satisfaction scores of pre-service teachers who participate in sports, cultural/artistic, outdoor and touristic activities in leisure time were higher; it was determined that pre-service teachers who participated in social, outdoor and touristic activities had higher life satisfaction. There was a positive significant relationship between the frequency of participation in recreational activities and the scale scores. On the other hand, the correlation coefficient between the scores obtained from NSS and LSS shows that there is a positive significant relationship between psychological need and life satisfaction scores.

Keywords: Leisure Time, Life Satisfaction, Pre-service Teachers, Psychological Needs.



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INTRODUCTION

Advances in technology have not only reduced the physical labor required in production but have also heightened the significance of time (Mull et al., 2005). Consequently, modern society has gained greater autonomy through these innovations, securing leisure time that offers opportunities for authentic self-expression (Henderson, 2010). These improvements in living standards have empowered individuals to utilize their leisure time more effectively (Kim et al., 2015; Ramazanoğlu et al., 2004). Parallel to these advancements, the inherent pressures of contemporary professional and urban life—coupled with the necessity to detach from daily stressors—have further amplified the demand for leisure activities (Iwasaki, 2017). Within this framework, leisure is conceptualized as a period liberated from obligations, allowing individuals to engage in self-chosen pursuits (Bakır, 1990; Tezcan, 1994). Active participation in such activities is known to foster positive emotions (Caldwell et al., 1992) and facilitate the development of psychologically resilient, self-actualizing youth (Passmore & French, 2001). However, university students, as a vital demographic, frequently encounter multifaceted stress factors across social, academic, and economic domains (Çivitci, 2015). Consequently, the integration of physical activity and healthy lifestyle habits during leisure time is of strategic importance. Promoting active lifestyles among these students not only safeguards individual health but also positions them as future role models, thereby fostering the sustainability of both personal development and public health.

In recent years, an expanding body of literature has underscored the pivotal role of leisure activity participation in fostering positive development, particularly highlighting its robust correlation with school well-being (Eccles et al., 2003; Fredricks & Eccles, 2006, 2008). Conversely, limited engagement in recreational pursuits has been linked to increased levels of depressive symptoms and anxiety (Larson et al., 2002). Evidence suggests that as participation frequency rises, experiences of depression and loneliness diminish (Morgan & Bath, 1998; Warr et al., 2004), thereby significantly enhancing physical, social, psychological, and cognitive health (Cheung et al., 2009; Shin & You, 2013). Furthermore, active leisure involvement serves as a primary determinant of life satisfaction (Riddick & Stewart, 1994) and is fundamentally associated with heightened happiness and subjective well-being (Menec, 2003). From this perspective, it can be argued that managing leisure time effectively provides a vital framework for meeting psychological needs by offering individuals autonomy in decision-making and opportunities for skill acquisition.

Leisure activity participation represents a dynamic domain for the fulfillment of an individual's basic psychological needs (Deci & Ryan, 2000). According to Self-Determination Theory (SDT), the satisfaction of three core psychological needs—autonomy, competence, and relatedness—is fundamental to maintaining motivation and psychological integrity (Ryan & Deci, 2017). Leisure experiences provide the optimal environment and freedom necessary to satisfy these requirements. In this framework, leisure is defined as a period liberated from external pressures, allowing individuals to pursue self-directed activities and thus experience autonomy in its most profound form (Leitner & Leitner, 2012). Beyond mere relaxation, this process enables personal growth through the demonstration of competence and the satisfaction of relatedness via the cultivation of social bonds. Consequently, leisure serves as a psychological space of freedom where individuals can detach from structural obligations and daily stressors (Leitner & Leitner, 2012; Karaküçük, 2008).

Life satisfaction is conceptualized as a holistic evaluation of one's life, transcending transient emotional states and rooted in a subjective cognitive appraisal based on self-determined criteria (Diener et al., 1985). As highlighted by Bradley and Corwyn (2007), contemporary perspectives associate life satisfaction not only with the fulfillment of biological needs but also with the realization of personal goals and adherence to subjective standards. For

preservice teachers, the equilibrium between academic demands and social engagement directly influences their overall life satisfaction (Sirgy & Wu, 2009). Within this framework, life satisfaction should be viewed as more than a mere indicator of individual well-being; it serves as a vital source of resilience during the construction of professional identity and acts as a protective buffer against future professional burnout. Consequently, fostering this satisfaction through leisure experiences is of strategic importance for both personal well-being and long-term professional sustainability.

Theoretical approaches to life satisfaction suggest that global well-being is a composite of satisfaction derived from specific domains, such as work, family, and leisure (Brief et al., 1993). Within this framework, participation in leisure activities enables individuals to detach from their daily routines, facilitating psychological rejuvenation and imbuing life with greater meaning and satisfaction (Yılmaz, 2004). From the perspective of Self-Determination Theory, individuals who fulfill their needs for autonomy, competence, and relatedness through leisure involvement report significantly higher life satisfaction than those whose needs remain unaddressed (Çankaya, 2009; Deci et al., 2001). This fulfillment, occurring within the liberating context of leisure, bolsters self-esteem and empowers individuals to maintain a more hopeful and positive outlook toward the future (Durmaz & Atamaz, 2006).

Extant literature consistently indicates that the satisfaction of basic psychological needs significantly bolsters life satisfaction (Çankaya, 2009), with numerous studies further validating the positive impact of leisure engagement on psychological well-being (Hayosh, 2017; Kim & Park, 2018). Notably, Leversen et al. (2012) identified that the fulfillment of autonomy in leisure activities predicts adolescent life satisfaction, while competence and relatedness serve as key mediators in this relationship. Furthermore, Walker and Kono (2018) demonstrated that satisfying these three core needs directly enhances leisure satisfaction. While the interplay between leisure participation, psychological needs, and life satisfaction is well-documented, research focusing specifically on preservice teachers remains sparse. Consequently, this study seeks to address this gap by examining these variables within the context of teacher candidates, aiming to determine the underlying relationships across various demographic factors. The findings are expected to offer a substantial contribution to the current body of knowledge. Therefore, investigation into how these dynamics manifest among teacher candidates is warranted to bridge this gap in literature. Addressing this deficiency is crucial, as the psychological well-being of future educators directly bears upon their impending professional efficiency and pedagogical competence. Hence, the present study aims to examine leisure time participation, psychological needs and life satisfaction of pre-service teachers according to some variables and to determine the relationship between them. In line with this objective, the following questions were investigated:

1. What are the levels of psychological needs and life satisfaction of pre-service teachers?
2. Is there a significant difference in the psychological needs and life satisfaction of pre-service teachers based on their gender, grade level, income status, and evaluation of leisure time?
3. Is there a significant relationship between the frequency of participation in leisure activities among pre-service teachers and their psychological needs and life satisfaction?
4. Is there a significant relationship between psychological needs and life satisfaction?

METHOD

Research Model

The study employed a relational survey model, a design specifically utilized to identify and analyze the differences or relationships between two or more variables (Karasar, 2012). Data was collected through questionnaire technique. In this approach, participants are presented with a series of standardized items to address, ensuring that the researcher remains a neutral observer without influencing the responses or the existing conditions (Ekiz, 2020).

Research Group

The study group comprised 451 preservice teachers (288 females and 163 males) enrolled across 11 different departments (Physical Education and Sports, Science, Mathematics, Classroom Teaching, Turkish Language, Psychological Counseling and Guidance, Preschool Education, Social Studies, English, Music, and Art Teaching Departments) at Erzincan Binali Yıldırım University. The participants were selected using the convenience sampling method that facilitates data collection from easily accessible groups (Ekiz, 2020). Regarding their academic standing, the sample included 106 first-year students, 157 second-year students, 95 third-year students, and 93 fourth-year students.

Data Collection Tools & Process

The data of the research were collected with the "Personal Information Form", "Need Satisfaction Scale" and "Life Satisfaction Scale".

Personal Information Form

The personal information form created by researchers to collect information about the preservice teachers who participated in the study consisted of variables such as gender, department, class, income, leisure time evaluation style and leisure time evaluation frequency.

Need Satisfaction Scale (NSS)

The scale was developed by Deci and Ryan (1991) and adapted into Turkish by Bacanlı and Cihangir-Çankaya (2003). The scale contains 21 items that measure three basic psychological needs of individuals. The scale, which has a 3-factor structure (autonomy, competence and relatedness), is in the form of a 7-point Likert type. While high scores from the scale indicate that individuals' basic psychological needs are satisfied, low scores indicate that need satisfaction decreases. The reliability of the scale was determined by the test-retest method (NSS:0.89, Autonomy: 0.82, Competence: 0.80 and Relatedness :0.81). It was determined that factor load values of the scale varied between 0.30 and 0.77. The Cronbach Alpha values for the scale are 'Autonomy': 0.71, 'Competence': 0.60, 'Relatedness': 0.74 and NSS: 0.83. The Cronbach's Alpha values calculated for this study are 'Autonomy': 0.71, 'Competence': 0.62, 'Relatedness': 0.75 and NSS: 0.86.

Life Satisfaction Scale (LSS)

The "Life Satisfaction Scale" used to determine the life satisfaction of the preservice teachers was developed by Diener, Emmons, Larsen and Griffin (1985) and adapted into Turkish by Yetim (1991). The scale, consisting of 5 items, has one-dimensional structure. The items in the scale are in the form of 7-point Likert Type and include a rating of "1" strongly disagree and "7"strongly agree. The highest score to be obtained from the scale is 35. The Cronbach Alpha calculated on the data collected within the scope of this study is 0.84.

Data Collection

The approval was received from Erzincan Binali Yıldırım University Human Research Health and Sports Sciences Ethics Committee regarding the ethical suitability of the research (Number: E-88012460-050.04-350121, Date: 04/04/2024). The data collection tools were applied to the preservice teachers who constituted the participant group in the spring semester of the 2023-2024 academic year. The data was collected before lesson hours, with the knowledge of the relevant instructor. Participants were informed about the study and their participation was voluntary. The collected data were examined and those deemed suitable for analysis were included in the study. The application of the data collection tool was completed in an average of 5 minutes.

Data Analysis

Data collected within the scope of this study were analyzed using the SPSS 21 package program. Normality and homogeneity of variance were examined through Skewness, Kurtosis, and Levene's test results to determine the suitability for parametric analyses (Büyüköztürk, 2015). Scale reliability was confirmed via Cronbach's Alpha coefficients. The statistical evaluation of the data included descriptive statistics, t-tests, ANOVA, and Pearson/Spearman correlation analyses, conducted in alignment with the research objectives.

FINDINGS

The data on the scores obtained by the preservice teachers participating in the study from the total scales and sub-dimensions are included in Table 1. The arithmetic mean of NSS is 4.89 and the standard deviation is 0.82. When NSS was examined on a sub-dimension basis, it was determined that the highest mean was in the Relatedness dimension (Mean: 5.04, Sd: 0.94) and the lowest mean was in the Competence dimension (Mean: 4.63, Sd: 0.96). The arithmetic mean and standard deviation values obtained from LSS are 3.80 ± 1.32 .

Table 1

Distribution of NSS and LSS scores

	Number of Items	Mean	Sd	Skewness	Kurtosis	Min.	Mak.
Autonomy	6	4.92	1.02	-0.45	0.63	1.00	7.00
Competence	6	4.63	0.96	-0.26	0.55	1.00	7.00
Relatedness	9	5.04	0.94	-0.47	0.75	1.00	7.00
NSS	21	4.89	0.82	-0.45	1.56	1.10	7.00
LSS	5	3.80	1.32	-0.03	-0.60	1.00	7.00

When the Skewness and Kurtosis values of the scales were examined (Table 1), it was determined that the Skewness values varied between -0.03 and -0.47, and the Kurtosis values varied between -0.60 and 1.56. When the Skewness and Kurtosis values are examined, it can be said that the data shows a normal distribution (George and Mallery, 2016).

Table 2

Results of t-Test according to Gender Variable

	Female (<i>n</i> =288)		Male (<i>n</i> =163)		t	p
	Mean	Sd	Mean	Sd		
Autonomy	4.90	1.02	4.97	1.02	0.71	0.48
Competence	4.60	0.97	4.66	0.94	0.64	0.52
Relatedness	5.07	0.93	4.98	0.96	1.01	0.32
NSS	4.89	0.81	4.89	0.84	0.03	0.98
LSS	3.89	1.29	3.64	1.36	1.92	0.06

Table 2 presents the t-test results of the scores received by the preservice teachers from the scales according to the gender variable. As a result of the analyses, it was found that the scores of NSS ($t=0.03$, $p>0.05$) and its sub-dimensions (Autonomy: $t=0.71$, $p>0.05$; Competence: $t=0.64$, $p>0.05$; Relatedness: $t=1.01$, $p>0.05$) and LSS ($t=1.92$, $p>0.05$) did not differ significantly.

Table 3*Results of ANOVA according to Class Variable*

	1 st Class (<i>n</i> =106)		2 nd Class (<i>n</i> =157)		3 rd Class (<i>n</i> =95)		4 th Class (<i>n</i> =93)		F	p
	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd		
Autonomy	4.98	1.05	5.02	1.04	4.74	1.04	4.87	0.91	1.72	0.16
Competen	4.60	0.94	4.64	1.02	4.53	0.97	4.73	0.85	0.76	0.52
Relatednes	5.00	1.03	5.16	0.91	4.89	0.98	5.02	0.83	1.76	0.15
NSS	4.88	0.83	4.97	0.85	4.74	0.86	4.90	0.71	1.54	0.20
LSS	3.82	1.24	3.97	1.24	3.60	1.37	3.68	1.46	1.81	0.15

The ANOVA results of the participants' scores from the NSS and LSS according to the class variable are shown in table 3. According to the analysis, NSS ($F_{3,447}=1.54$, $p>0.05$), Autonomy ($F_{3,447}=1.72$, $p>0.05$), Competence ($F_{3,447}=0.76$, $p>0.05$) and Relatedness ($F_{3,447}=1.76$, $p>0.05$) sub-dimension scores and LSS ($F_{3,447}=1.81$, $p>0.05$) scores didn't differ significantly.

Table 4*Results of t-Test according to Monthly Income Variable*

	Low (<i>n</i> =124)		Middle (<i>n</i> =327)		t	p
	Mean	Sd	Mean	Sd		
Autonomy	4.63	1.05	5.03	0.99	3.83	0.00
Competence	4.48	0.93	4.68	0.97	2.02	0.04
Relatedness	4.83	0.97	5.12	0.92	2.93	0.00
NSS	4.67	0.82	4.97	0.81	3.47	0.00
LSS	3.29	1.28	3.99	1.29	5.20	0.00

The analyses performed according to the monthly income variable show that the scores

of NSS ($t=3.47$, $p<0.01$) and Autonomy ($t=3.83$, $p<0.01$), Competence ($t=2.02$, $p<0.05$) and Relatedness ($t=2.93$, $p<0.01$) sub-dimensions differ significantly. In addition, it was determined that the scores obtained by preservice teachers from LSS differed significantly ($t=5.20$, $p<0.01$). According to the findings, the participants with a middle monthly income have higher NSS, Autonomy, Competence, Relatedness and LSS scores (Table 4).

Table 5

Results of t-Test according to Leisure Time Evaluation Variable (Sportive Activities)

	Sportive activities				t	p
	Participating		Non-Participating			
	(n=175)		(n=276)			
	Mean	Sd	Mean	Sd		
Autonomy	5.02	1.01	4.86	1.02	1.56	0.12
Competence	4.81	0.98	4.51	0.93	3.21	0.00
Relatedness	5.13	0.90	4.98	0.96	1.61	0.11
NSS	5.00	0.82	4.81	0.82	2.41	0.02
LSS	3.80	1.34	3.80	1.32	0.03	0.98

Table 5 shows the t-test results of the scores by the preservice teachers from the scales according to the status of evaluating the leisure time (participation in sports activities). The analysis showed that the NSS ($t=2.41$, $p<0.05$) and Competence ($t=3.21$, $p<0.01$) sub-dimension scores differ significantly. According to this finding, preservice teachers who spend their leisure time by participating in sports activities have higher NSS and Competence sub-dimension scores. On the other hand, it was determined that Autonomy ($t=1.56$, $p>0.05$) and Relatedness ($t=1.61$, $p>0.05$) sub-dimension scores and LSS scores ($t=0.03$, $p>0.05$) did not differ significantly.

Table 6

Results of t-Test according to Leisure Time Evaluation Variable (Social Activities and Cultural/Arthistic)

	Social activities				Cultural/Arthistic activities							
	Participating (n=244)		Non-Participating (n=207)		t	p	Participating (n=89)		Non-Participating (n=362)		t	p
	Mean	Sd	Mean	Sd			Mean	Sd	Mean	Sd		
Autonomy	5.06	1.02	4.76	1.00	3.09	0.00	4.90	0.99	4.93	1.03	0.19	0.85
Competen	4.82	0.92	4.40	0.96	4.73	0.00	4.86	0.84	4.57	0.98	2.54	0.01
Relatednes	5.29	0.82	4.74	0.99	6.40	0.00	5.22	0.81	4.99	0.97	2.09	0.04
NSS	5.09	0.74	4.65	0.86	5.83	0.00	5.03	0.65	4.85	0.86	2.12	0.04
LSS	3.96	1.29	3.60	1.33	2.90	0.00	3.79	1.37	3.80	1.31	0.06	0.95

In Table 6, the t-test results are presented according to the preservice teachers spend their

leisure time (participation in social and cultural/artistic activities). It was found that the scores related to the sub-dimensions of NSS ($t=5.83$, $p<0.01$), Autonomy ($t=3.09$, $p<0.01$), Competence ($t=4.73$, $p<0.01$) and Relatedness ($t=6.40$, $p<0.01$) of the participants and LSS ($t=2.90$, $p<0.01$) scores differed significantly according to the variable of participation in social activities. According to this finding, the preservice teachers who evaluate their leisure time by participating in social activities have higher scores on the NSS and its sub-dimensions and on the LSS. On the other hand, according to the variable of participation in cultural/artistic activities, it was found that the scores of NSS ($t=2.12$, $p<0.05$), Competence ($t=2.54$, $p<0.01$) and Relatedness ($t=2.09$, $p<0.05$) sub-dimensions differed significantly. According to this finding, the NSS, Competence and Relatedness sub-dimension scores of the participants who evaluated their leisure time by participating in cultural/artistic activities were higher. When the Autonomy ($t=0.19$, $p>0.05$) and LSS ($t=0.06$, $p>0.05$) scores were examined, it was determined that the scores did not differ significantly.

Table 7

Results of t-Test according To Leisure Time Evaluation Variable (Outdoor Activities and Touristic Activities)

	Outdoor activities				Touristic activities							
	Participating ($n=185$)		Non-Participating ($n=266$)		Participating ($n=72$)		Non-Participating ($n=379$)					
	Mean	Sd	Mean	Sd	t	p	Mean	Sd	Mean	Sd	t	p
Autonomy	5.02	0.98	4.85	1.04	1.7	0.08	5.12	0.95	4.88	1.03	1.76	0.08
Competen	4.86	0.88	4.47	0.98	4.3	0.00	5.00	0.84	4.56	0.96	3.65	0.00
Relatednes	5.25	0.78	4.89	1.01	4.1	0.00	5.38	0.85	4.97	0.94	3.36	0.00
NSS	5.07	0.70	4.76	0.87	4.0	0.00	5.19	0.75	4.83	0.82	3.49	0.00
LSS	4.06	1.24	3.61	1.34	3.6	0.00	4.26	1.36	3.71	1.30	3.29	0.00

Table 7 shows the t-test results performed according to the preservice teachers candidates evaluate leisure time (participation in outdoor activities and touristic activities). According to the participation in outdoor activities variable, it was found that the preservice teachers NSS ($t=4.02$, $p<0.01$), Competence ($t=4.33$, $p<0.01$), Relatedness ($t=4.18$, $p<0.01$) sub-dimension scores and LSS ($t=3.62$, $p<0.01$) scores differed significantly, while the Autonomy ($t=1.75$, $p>0.05$) sub-dimension scores did not differ significantly. According to the variable of participation in touristic activities, the participants' NSS ($t=3.49$, $p<0.01$), Competence ($t=3.65$, $p<0.01$) and Relatedness ($t=3.36$, $p<0.01$) sub-dimension scores and LSS ($t=3.29$, $p<0.01$) scores differed significantly, while the Autonomy ($t=1.76$, $p>0.05$) sub-dimension scores did not differ significantly. According to the findings, preservice teachers who spend their leisure time by participating in outdoor activities and touristic activities have higher Competence, Relatedness, NSS and LSS scores.

Table 8

Correlation Results between Frequency of Participation in Recreational Activities and Scale Scores

	Frequency of participation in recreational activities	
	r	p
Autonomy	0.18	0.00
Competence	0.25	0.00
Relatedness	0.27	0.00
NSS	0.28	0.00
LSS	0.15	0.00

The results of the correlation analysis between the frequency of participation in recreational activities and the scale scores are shown in Table 8. The results show that there is a positive and low-level significant relationship between the frequency of participation in recreational activities and the scale scores. According to this finding, as the frequency of preservice teachers' participation in recreational activities increases, their Autonomy, Competence, Relatedness, NSS and LSS scores also increase.

Table 9*Correlation Results between NSS and LSS Scores*

	Autonomy		Competence		Relatedness		NSS	
	r	p	r	p	r	p	r	p
LSS	0.48	0.00	0.48	0.00	0.39	0.00	0.52	0.00

Table 9 presents the correlation results regarding the scores that pre-service teachers received from the scales. As a result of the analysis, it was determined that there was a positive and moderately significant relationship between the NSS, Autonomy, Competence and Relatedness sub-dimension scores and the LSS scores. According to this result, as the NSS, Autonomy, Competence and Relatedness scores increase, the LSS scores also increase.

DISCUSSION

This section discusses and interprets the findings of the study, which investigated the relationships between preservice teachers' leisure time participation, psychological needs, and life satisfaction levels across various variables.

According to the results obtained from the study, the psychological needs levels of preservice teachers were at midlevel. In the study conducted by Eratay, Sarı and Kermen (2014), the participants' psychological need satisfaction levels were found to be above the middle level; however, in the studies conducted by Doğan and Eryılmaz (2012) and Türk (2013), it was found to be at a high level. In addition, it was determined that the participants had the highest average in the Relationship dimension and the lowest average in the Competence dimension. In the studies conducted by Aydın and Kahraman (2020); Orkibi and Ronen (2017), it was determined that the participants had the highest average in the Relationship dimension. In addition, in the study conducted by Aydın and Kahraman (2020), it was found that the participants had the lowest average in the Autonomy dimension. The life satisfaction of the preservice teachers participating in the research was also at midlevel. In some

studies in the literature, it was determined that the life satisfaction of the participants was at a midlevel (Akbulut et al., 2019; Çolak et al., 2023; Miliazim Memet, 2022). Previous research presents varying results regarding participants' life satisfaction; while some studies reported high levels (Avcı, 2015; Gül, 2018), others identified low levels (Ak, 2019). Specifically, Derinyar (2022) and Küçük Kılıç, Öncü, and Bozyiğit (2022) found that life satisfaction levels were below the mid-level. Within this context, it could be inferred that students are generally aware of their psychological needs and have developed strategies to address them.

The results of this study indicated that psychological need satisfaction did not vary significantly between male and female participants. Consistent with these findings, studies by Eratay et al. (2014), Gündoğdu and Yavuzer (2012), and Toprak (2014) also observed no gender-based differences in psychological need satisfaction. Conversely, some literature reports higher levels of satisfaction among females (Aydın & Kahraman, 2020; Şat et al., 2015; Türk, 2013), while others highlight higher levels among males (Çivitçi, 2012; Özaydın et al., 2014). Similarly, the life satisfaction of teacher candidates did not differ by gender, aligning with previous research (Derinyar, 2022; Gül, 2018; Küçük Kılıç et al., 2022). However, some studies have noted a higher perception of life satisfaction in female participants (Aydilek, 2019; Jovanović, 2017). This lack of gender differentiation in the current study may be attributed to the fact that the participants are university students sharing similar developmental stages and environmental conditions.

Another finding of this study indicated that preservice teachers' psychological need satisfaction did not vary significantly by grade level, a result consistent with previous research by Aydın and Kahraman (2020). Similarly, life satisfaction levels were found to be independent of the participants' grade level. This outcome aligns with several studies in the literature (Aydilek, 2019; Derinyar, 2022; Gül, 2018; Küçük Kılıç et al., 2022; Miliazim Memet, 2022). In contrast, some researchers reported grade-specific differences; for instance, Akbulut et al. (2019) observed higher life satisfaction among fourth-year students, while Yıldırım (2019) found it to be higher in first-year students. The stability across grade levels in the current study may suggest that participants, regardless of their year of study, share a homogenous institutional environment and similar academic expectations within the teacher education program. This shared academic and social ecosystem may lead to a comparable baseline for both leisure patterns and psychological well-being throughout their undergraduate education.

The study results revealed that participants with a medium monthly income reported higher psychological need satisfaction compared to those with low income. This finding aligns with Türk (2013), who observed that higher income levels correlate with increased psychological need satisfaction. Conversely, Bayraktar (2007) and Toprak (2014) found that psychological need satisfaction remained independent of income status. Similarly, life satisfaction levels were significantly higher among participants perceiving their income as medium rather than low. This trend is corroborated by numerous studies (e.g., Çolak et al., 2023; Kahneman & Deaton, 2010; Küçük Kılıç et al., 2022), which suggest that higher economic status enhances life satisfaction. However, some researchers (Demir, 2017; Miliazim Memet, 2022) reported no significant income-based differences. It can be inferred that economic freedom fosters psychological comfort, which in turn serves as a catalyst for higher life satisfaction.

Research findings indicated that preservice teachers engaging in sports, cultural/artistic, outdoor, and touristic activities during their leisure time reported significantly higher psychological need satisfaction. Similarly, participation in social, outdoor, and touristic activities was associated with elevated life satisfaction levels. These results are corroborated by Çolak et al. (2023) and Küçük Kılıç et al. (2018), who observed that social, cultural, and sports-related leisure involvement enhances life satisfaction among university students and teacher

candidates. Furthermore, White et al. (2017) and Hamer et al. (2009) emphasized that physical activities during leisure time possess a greater potential to positively influence well-being than work- or transport-related activities. Although Akbulut et al. (2019) reported no significant differences based on leisure styles, the weight of evidence—including studies by Küçük Kılıç et al. (2022)—suggests that active and productive leisure engagement serves as a vital buffer against academic stress and daily chaos, facilitating positive psychological channeling.

The findings of this study suggest that engagement in recreational activities enhances both the psychological need satisfaction and life satisfaction of preservice teachers. These results are consistent with the work of Küçük Kılıç et al. (2018, 2022), which identified a positive correlation between the frequency of leisure participation and life satisfaction levels. Supporting this trend, Yıldırım (2019) observed that participants exercising three times a week reported significantly higher life satisfaction compared to those with minimal or no physical activity. Furthermore, Dolan et al. (2014) reinforced this by highlighting a positive relationship between exercise frequency and well-being. Conversely, some studies in the literature (e.g., Akbulut et al., 2019; Dikici, 2020) found no significant link between the frequency of leisure involvement and life satisfaction, suggesting that the impact of participation may vary across different research contexts.

The findings of this research demonstrate that as individuals' psychological need satisfaction increases, their life satisfaction levels rise accordingly. This positive correlation aligns with the results reported by Yeşilyurt (2019). Furthermore, Toprak (2014) identified a significant relationship between these two constructs, suggesting that psychological need satisfaction serves as a robust predictor of life satisfaction. As noted by Rapport (2007), an individual's sense of well-being is closely tied to the extent to which their psychological needs—key determinants of life perception—are fulfilled. Consequently, it can be concluded that the adequate satisfaction of psychological needs among participants directly enhances their overall life satisfaction.

CONCLUSION AND RECOMMENDATIONS

The findings of this study indicate that preservice teachers' psychological need satisfaction and life satisfaction levels are at a moderate level. While gender and grade level did not significantly influence these variables, monthly income emerged as a significant factor. Specifically, participants engaging in sports, cultural/artistic, outdoor, and touristic activities during their leisure time reported higher psychological need satisfaction, whereas social, outdoor, and touristic involvement was associated with elevated life satisfaction scores. A significant positive correlation was observed between the frequency of recreational participation and overall scale scores, as well as between psychological needs and life satisfaction. Consequently, promoting active leisure engagement among teacher candidates is essential for enhancing their psychological well-being. Several limitations of this study should be acknowledged. First, the sample is limited to preservice teachers recruited via convenience sampling from a single state university located in the Eastern Anatolia region of Turkey; hence, the findings may not be fully generalizable to all teacher candidates across different universities or geographical areas. Second, the data were collected using self-report scales, which inherently carry risks associated with the potential influence of participants' transient personal moods during data collection. Besides this, due to the cross-sectional design of the research, a definitive causal relationship among leisure participation, psychological need satisfaction, and life satisfaction cannot be established. Finally, leisure engagement was categorized based on structured forms of participation, which may not fully capture the qualitative depth or intrinsic meanings that individual preservice teachers assign to their free-time experiences. Despite these limitations, this study provides a valuable foundation for future research. Expanding the sample size and employing longitudinal or experimental designs will be essential to gain a more comprehensive understanding of these dynamics.

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Vildan Akbulut: Conceptualization, Methodology, Investigation, Data Collection, Formal Analysis, Visualization, Writing – Original Draft Preparation, and Final Approval of the Manuscript.

Selin Doğan: Data Collection, Investigation, Literature Review, Writing – Original Draft Preparation, and Final Approval of the Manuscript.

Sonnur Küçük Kılıç:** Conceptualization, Methodology, Supervision, Validation, Writing – Review & Editing, and Final Approval of the Manuscript.

Erman Öncü: Methodology, Formal Analysis, Supervision, Writing – Review & Editing, Critical Revision, and Final Approval of the Manuscript.

**** Corresponding Author:** Sonnur KÜÇÜK KILIÇ, Associate Professor, Faculty of Sport Sciences, Erzincan Binali Yıldırım University, Erzincan, Türkiye. E-mail: sonnur.kucukkilic@erzincan.edu.tr, ORCID: <https://orcid.org/0000-0002-0355-0492>