

The Effects of Social Media Use and Social Media Use Behaviors on Mental Fatigue Awareness in Young Athletes

Genç Sporcularda Sosyal Medya Kullanımı ve Sosyal Medya Kullanım Davranışlarının Mental Yorgunluk Farkındalığına Etkisi

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Öz

Bu araştırmanın amacı, genç sporcularda sosyal medya kullanımı ve sosyal medya kullanım davranışlarının mental yorgunluk farkındalığına etkisini ve bu değişkenlerin sporculuk düzeyi, yaş ve günlük sosyal medya kullanım süresine göre farklılaşıp farklılaşmadığını belirlemektir. Nicel araştırma yaklaşımına dayalı kesitsel ve ilişkisel modelde gerçekleştirilen araştırmanın çalışma grubunu, 257 öğrenci sporcu oluşturmaktadır. Veriler, Genel Sosyal Medya Kullanım Düzeyi Ölçeği, Sporcu Sosyal Medya Kullanım Davranışları Ölçeği ve Sporcularda Mental Yorgunluk Farkındalık Ölçeği kullanılarak toplanmıştır. Verilerin analizinde betimsel istatistikler, Bağımsız Örneklem t-testi, Tek Yönlü Varyans Analizi, Pearson korelasyon ve çoklu doğrusal regresyon analizlerinden yararlanılmıştır. Bulgular, genel sosyal medya kullanımı ile sporcu sosyal medya kullanım davranışları arasında pozitif yönlü ve anlamlı ilişkiler bulunduğunu göstermiştir. Mental yorgunluk farkındalığı; sosyal rutinlerle bütünleşme ($r = .20, p < .001$), sporcu sosyal medya kullanım davranışları ($r = .24, p < .001$), içerik üretme ($r = .28, p < .001$) ve kullanım sıklığı ($r = .24, p < .001$) ile düşük düzeyde ve pozitif yönde ilişkili bulunmuştur. Mental yorgunluk farkındalığı sporculuk düzeyi, yaş ve günlük sosyal medya kullanım süresine göre anlamlı farklılık göstermiştir. Regresyon analizi sonucunda sporcu sosyal medya kullanım davranışlarının mental yorgunluk farkındalığını pozitif yönde ve anlamlı biçimde yordadığı ($\beta = .27, p < .001$), genel sosyal medya kullanımının ise anlamlı bir yordayıcı olmadığı ($\beta = -.06, p = .451$) belirlenmiştir. Model, mental yorgunluk farkındalığındaki varyansın %5,9'unu açıklamıştır ($R^2 = .059$).

Anahtar Kelimeler: Öğrenci Sporcular, Sosyal Medya Kullanımı, Sosyal Medya Kullanım Davranışları, Mental Yorgunluk Farkındalığı, Spor.

Abstract

This study aims to examine the effect of social media use and social media use behaviors on mental fatigue awareness among young athletes and to determine whether these variables differ according to athletic level, age, and daily social media use duration. The study group for this research, which employs a cross-sectional and relational model based on a quantitative research approach, consists of 257 student-athletes. Data were collected using the General Social Media Use Scale, the Athlete Social Media Use Behaviors Scale, and the Mental Fatigue Awareness Scale for Athletes. Descriptive statistics, independent-samples t-tests, one-way analysis of variance, Pearson correlation analysis, and multiple linear regression analysis were used to analyze the data. The findings indicated positive and significant relationships between general social media use and athlete social media use behaviors. Mental fatigue awareness was found to be positively and weakly associated with social routines integration ($r = .20, p < .001$), athlete social media use behaviors ($r = .24, p < .001$), content creation ($r = .28, p < .001$), and usage frequency ($r = .24, p < .001$). Mental fatigue awareness also differed significantly according to athletic level, age, and daily social media use duration. Multiple linear regression analysis showed that athlete social media use behaviors positively and significantly predicted mental fatigue awareness ($\beta = .27, p < .001$), whereas general social media use was not a significant predictor ($\beta = -.06, p = .451$). The model explained 5.9% of the variance in mental fatigue awareness ($R^2 = .059$).

Keywords: Student-Athletes, Social Media Use, Social Media Use Behaviors, Mental Fatigue Awareness, Sport.

<https://www.ijoss.org/Archive/v3-i3/ijoss-Volume3-issue3-06.pdf>

INTRODUCTION

The increasing integration of digital technologies into everyday life has made social media platforms an integral part of how individuals communicate, acquire information, entertain themselves, and express their identities (Demir & Yıldız, 2020). Particularly among young adults, the widespread use of social media has become increasingly intertwined with daily routines and social relationships, while the duration and nature of use have emerged as important areas of research in relation to individuals' psychological and behavioral characteristics. Research on social media use indicates that intensive and uncontrolled use may be associated with social media fatigue, burnout, stress, and various psychological problems. A systematic review of social media fatigue has also demonstrated that individual, relational, and environmental factors may contribute to the development of this process (Zheng & Ling, 2021; Yaman et al., 2026). However, because young athletes engage with digital media alongside multiple tasks and responsibilities, including academic life, training, competition, recovery, and social relationships, this association needs to be examined within the specific context of athletic populations. Indeed, longer digital media use and digital media addiction have been associated with poorer mental health indicators among young athletes, while problematic digital media use may be linked to sleep disturbances, particularly among athletes competing at higher performance levels. In addition, social media use has been reported to be associated with psychological processes such as eating behaviors and body image among athletes (Fiedler et al., 2024; Walter et al., 2022).

The potential consequences of social media use are particularly important for young athletes. In addition to academic responsibilities, athletes face multiple demands related to training, competition, performance expectations, and social life; therefore, the effective management of cognitive and psychological resources is critical for performance. Research conducted among university athletes has similarly indicated that patterns of social media use in everyday life may be associated with stress, anxiety, depressive symptoms, and other indicators of well-being (Barry et al., 2024). In this context, one important variable that warrants attention is mental fatigue. Mental fatigue is generally considered a state that may arise from prolonged cognitive effort, attention-demanding tasks, or exposure to intensive cognitive stimulation and that may affect cognitive functioning, attention, and decision-making processes. In sport settings, mental fatigue is particularly relevant to decision-making, attention, and perceptual-cognitive performance. In recent years, experimental studies have begun to demonstrate that social media use may be associated with mental fatigue and performance among athletes. For example, 30 minutes of social media use prior to training has been reported to negatively affect visuomotor skills in young volleyball players (Foster et al., 2022). Similarly, an experimental study examining the effects of social media use on resistance training performance emphasized the need to consider social media use within the context of mental fatigue (Alix-Fages et al., 2023).

The multidimensional nature of social media use behaviors, including content production, usage frequency, and addiction tendencies, suggests that their cognitive and psychological effects may also vary across different behavioral dimensions. In particular,

continuous exposure to notifications, producing and sharing content, frequently switching between platforms, and integrating social media use into daily routines may impose additional cognitive demands on attentional resources. Nevertheless, findings regarding the relationship between social media use and mental fatigue do not appear to be entirely consistent. Faro et al. (2025) suggested that the effects of social media use cannot be explained solely by the duration of use and emphasized the importance of examining the nature of social media use behaviors. Therefore, rather than assessing social media use solely in terms of daily usage duration, a multidimensional approach that considers the nature of usage behaviors and the extent to which social media is integrated into social life is warranted. Similarly, a study conducted among elite university handball players in 2026 found that social media use increased subjective mental fatigue, although its effects on decision-making performance remained limited (Kim et al., 2026). These findings suggest that evaluating the effects of social media solely on the basis of usage duration may be insufficient and that the purposes and behavioral patterns underlying social media use should also be taken into consideration.

Accordingly, the aim of this study was to examine the effects of social media use and social media use behaviors on mental fatigue awareness among young athletes and to determine whether these variables differed according to competitive level, age, and daily social media use duration. In this regard, the study is expected to contribute to a better understanding of the relationship between young athletes' digital behaviors and cognitive/psychological processes and to the development of more informed approaches to social media use in sport settings.

MATERIAL and METHOD

Research Design

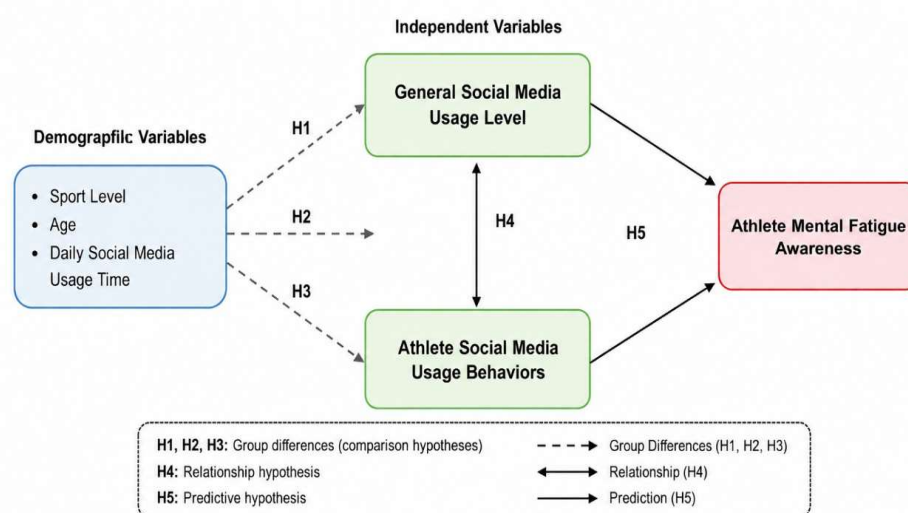


Figure 1. Research Model

This study was conducted using a quantitative research approach and a correlational survey design. The correlational survey design aims to determine the relationships

between two or more variables and the extent to which these variables vary together (Büyüköztürk et al., 2021; Karasar, 2022).

Research Hypotheses

H1: Participants' levels of general social media use, Athlete Social Media Usage Behaviors, and Mental Fatigue Awareness differ significantly according to competitive level.

H2: Participants' levels of general social media use, Athlete Social Media Usage Behaviors, and Mental Fatigue Awareness differ significantly according to age.

H3: Participants' levels of general social media use, Athlete Social Media Usage Behaviors, and Mental Fatigue Awareness differ significantly according to daily social media use duration.

H4: There are positive and significant relationships among participants' levels of general social media use, Athlete Social Media Usage Behaviors, and Mental Fatigue Awareness.

H5: General social media use and Athlete Social Media Usage Behaviors significantly predict Mental Fatigue Awareness among athletes.

Study Participants

The study participants consisted of 257 student-athletes enrolled at the Faculty of Sport Sciences at Erzincan Binali Yıldırım University. Students were eligible to participate if they were aged 18 years or older, enrolled in the Faculty of Sport Sciences, and voluntarily agreed to participate in the study.

Data Collection Instruments

The research data were collected online using Google Forms. In accordance with the administration requirements of the Mental Fatigue Awareness Scale for Athletes, the post-training or post-performance period specified for the administration of the scale was taken into consideration. Accordingly, data were obtained through forms completed by the participants following their training sessions. Three different scales were used in the study in accordance with the research objectives and the variables examined.

General Social Media Usage Scale

The General Social Media Usage Scale, developed by Jenkins et al. (2013) and adapted into Turkish by Başol and Kocadağ-Ünver (2018), was used in the study. The scale consists of 10 items and two subscales: Social Integration and Emotional Connection and Integration with Social Routines. The scale is rated on a five-point Likert-type scale, with responses ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree." Item 8 is reverse-coded. In the reliability analyses conducted by Başol and Kocadağ-Ünver (2018), Cronbach's alpha coefficients for the total scale and its subscales ranged from .74 to .83. Cronbach's alpha coefficients in our study ranged General Social Media Usage: Total score .85, Social Integration and Emotional Connection .91 and Integration with Social

Routines .80. These findings indicate that the scale demonstrates adequate internal consistency and temporal stability for assessing social media usage levels.

Athlete Social Media Usage Behaviors Scale

The Athlete Social Media Usage Behaviors Scale, for which validity and reliability analyses were conducted by Akarsu et al. (2024), was used in the study. The scale consists of 15 items across three subscales: Content Production, Usage Frequency, and Social Media Addiction. The scale is rated on a five-point Likert-type scale, with responses ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree." In the scale development study, the Cronbach's alpha internal consistency coefficients were reported as .92 for Content Production, .85 for Usage Frequency, and .79 for Social Media Addiction. In our study it ranged .90 to .96. Accordingly, the subscales were considered to demonstrate adequate internal consistency.

Mental Fatigue Awareness Scale for Athletes (MFASA)

The Mental Fatigue Awareness Scale for Athletes (MFASA), for which validity and reliability analyses were conducted by Kara et al. (2024), was used in the study. The scale consists of 25 items and a single factor and is rated on a five-point Likert-type scale. Responses range from 1 = "Never" to 5 = "Always." The MFASA is used to assess awareness of mental fatigue experienced by athletes following performance or training. In the validity and reliability study, the single factor was reported to explain 52.48% of the total variance, and the scale demonstrated a Cronbach's alpha internal consistency coefficient of .96. In our study Cronbach's alpha coefficients .98. These findings indicate that the MFASA is a highly reliable measurement instrument for assessing mental fatigue awareness among athletes.

Data Analysis

The research data were collected through Google Forms and transferred to SPSS 21.0 for statistical analysis. The normality of the data was assessed by examining skewness and kurtosis values. As the obtained values fell within acceptable ranges and the data were determined to demonstrate a normal distribution (Table 1), parametric tests were employed. Accordingly, the independent-samples t-test was used to compare two independent groups, one-way analysis of variance (ANOVA) was used to compare more than two groups, Pearson's correlation analysis was used to examine the relationships between variables, and multiple linear regression analysis was conducted to examine the predictive relationships among the variables.

When a statistically significant difference was detected in the ANOVA results, Tukey's post hoc multiple-comparison test was used to determine which groups differed from one another. Cohen's d effect size coefficient was used to assess the magnitude of differences in group comparisons. In the regression model, the Mental Fatigue Awareness total score was entered as the dependent variable, while the General Social Media Usage total score and Athlete Social Media Usage Behaviors total score were entered as independent variables. The contributions of the predictor variables to the model were evaluated using the unstandardized regression coefficient (B), standard error

(SE), standardized regression coefficient (β), t, and p values. The explanatory power of the model was assessed using R^2 and adjusted R^2 , while the overall significance of the model was evaluated using the F test.

To assess multicollinearity, Tolerance and Variance Inflation Factor (VIF) values were examined. In addition, as part of the assumptions underlying multiple regression analysis, the distribution of residuals, standardized residual values, and the influence of individual observations on the model were evaluated. The statistical significance level was set at $p < .05$ for all analyses.

Table 1. Normality and reliability analysis results for the study variables

Variable	Min.	Max.	M	SD	Skew.	Kurt.	α
General Social Media Usage Total Score	1.30	4.10	2.63	0.68	0.14	-0.82	0.85
Social Integration and Emotional Connection	1.00	4.00	2.39	0.84	0.24	-0.73	0.91
Integration with Social Routines	1.00	4.00	2.65	0.85	0.23	-0.77	0.80
Athlete Social Media Usage Behaviors Total Score	2.00	5.00	3.21	0.91	0.17	-0.97	0.96
Content Production	2.00	5.00	3.22	0.98	0.17	-1.22	0.95
Usage Frequency	2.00	5.00	2.94	0.91	0.69	-0.53	0.92
Social Media Addiction	1.00	5.00	3.38	1.01	0.11	-0.90	0.90
Mental Fatigue Awareness Total Score	1.00	5.00	3.38	1.01	0.11	-0.90	0.98

Note. M = Mean; SD = Standard Deviation; Min. = Minimum; Max. = Maximum; Skew. = Skewness; Kurt. = Kurtosis; α = Cronbach's alpha.

Table 1 presents the descriptive statistics and internal consistency coefficients for the variables included in the study. The mean scores ranged from 2.39 to 3.38, while the standard deviation values ranged from 0.68 to 1.01. Skewness values ranged from 0.11 to 0.69, whereas kurtosis values ranged from -1.22 to -0.53. All skewness and kurtosis coefficients were within the ± 2 range. According to the criteria proposed by George and Mallery (2010), these values fall within an acceptable range and indicate that the data meet the assumption of normality. In addition, Cronbach's alpha coefficients ranged from 0.80 to 0.98 across the total scores and subscales, exceeding the commonly accepted threshold of 0.70 (Nunnally & Bernstein, 1994).

Validity, Reliability, and Ethics

The validity and reliability of the measurement instruments used in the study were evaluated based on the findings reported in the respective scale development and adaptation studies. Within the scope of the present study, the reliability of the scales was assessed in the current sample using Cronbach's alpha coefficients. The ethical compliance of the study was reviewed by the Human Research Social and Humanities Ethics Committee of Erzincan Binali Yıldırım University. The study received ethical approval at the Committee's meeting held on April 30, 2025, under protocol number 04/14. The necessary permissions to conduct the study were obtained, and data were collected from participants after obtaining their voluntary informed consent.

FINDINGS

Table 2. Sociodemographic and sport-related characteristics of the participants

Variable	Category	n	%
Sporting Level	Amateur	187	72.76
	Professional	70	27.24
Age	18–21 years	155	60.31
	22–26 years	102	39.69
Daily Social Media Use	≤1 hour	17	6.61
	1–2 hours	81	31.52
	3–5 hours	97	37.74
	>5 hours	62	24.12

Table 2 presents the distribution of participants according to their sociodemographic characteristics and social media use and sharing behaviors. Of the 257 athletes who participated in the study, 72.76% (n = 187) were amateur athletes, while 27.24% (n = 70) were professional athletes. Regarding age, 60.31% of the participants were aged 18–21 years, whereas 39.69% were aged 22–26 years. In terms of daily social media use, 37.74% (n = 97) of the participants reported using social media for 3–5 hours per day, while 24.12% (n = 62) reported using social media for more than 5 hours per day. Overall, 61.86% (n = 159) of the participants reported using social media for at least 3 hours per day. Overall, the sample demonstrated widespread and relatively intensive social media use.

Table 3. Comparison of study variables between amateur and professional athletes

Variable	Amateur M ± SD	Professional M ± SD	t	df	Cohen's d	p
General Social Media Usage Total Score	2.67 ± 0.69	2.51 ± 0.64	1.69	255	0.24	.093
Social Integration and Emotional Connection	2.46 ± 0.84	2.22 ± 0.82	2.06	255	0.29	.041
Integration with Social Routines	2.66 ± 0.83	2.64 ± 0.88	0.17	255	0.02	.867
Athlete Social Media Usage Behaviors Total Score	3.13 ± 0.84	3.16 ± 0.87	−0.20	255	0.03	.844
Content Production	3.19 ± 0.90	3.29 ± 0.96	−0.80	255	0.11	.426
Usage Frequency	3.24 ± 0.98	3.16 ± 0.97	0.54	255	0.08	.592
Social Media Addiction	2.94 ± 0.91	2.93 ± 0.91	0.14	255	0.02	.891
Mental Fatigue Awareness Total Score	3.31 ± 0.99	3.59 ± 1.03	−1.99	255	0.28	.047

Note. M = Mean; SD = Standard Deviation; df = degrees of freedom.

As shown in Table 3, no statistically significant differences were found between amateur and professional athletes in terms of General Social Media Usage Total Score, Integration with Social Routines, Athlete Social Media Usage Behaviors Total Score, Content Production, Usage Frequency, or Social Media Addiction ($p > .05$). In contrast, Social Integration and Emotional Connection differed significantly according to competitive level, $t(255) = 2.06$, $p = .041$. Amateur athletes had a higher mean score on this dimension ($M = 2.46 \pm 0.84$) than professional athletes ($M = 2.22 \pm 0.82$). The Cohen's d value of 0.29 indicates a small effect size. Similarly, Mental Fatigue Awareness

Total Score differed significantly according to competitive level, $t(255) = -1.99$, $p = .047$. Professional athletes had a higher mean Mental Fatigue Awareness score ($M = 3.59 \pm 1.03$) than amateur athletes ($M = 3.31 \pm 0.99$). The Cohen's d value was 0.28, indicating a small effect size.

Table 4. Comparison of study variables by age group

Variable	18–21 years $M \pm SD$	22–26 years $M \pm SD$	t	df	Cohen's d	p
General Social Media Usage Total Score	2.65 ± 0.67	2.59 ± 0.69	0.70	255.00	0.09	.485
Social Integration and Emotional Connection	2.41 ± 0.84	2.37 ± 0.86	0.38	255.00	0.05	.704
Integration with Social Routines	2.68 ± 0.85	2.62 ± 0.84	0.56	255.00	0.07	.580
Athlete Social Media Usage Behaviors Total Score	3.10 ± 0.82	3.20 ± 0.88	-0.94	255.00	-0.12	.350
Content Production	3.17 ± 0.88	3.29 ± 0.96	-1.03	255.00	-0.13	.304
Usage Frequency	3.20 ± 0.96	3.24 ± 1.00	-0.30	255.00	-0.04	.768
Social Media Addiction	2.89 ± 0.88	3.02 ± 0.96	-1.14	255.00	-0.14	.258
Mental Fatigue Awareness Total Score	3.21 ± 0.90	3.65 ± 1.11	-3.33	184.92	-0.44	.001

As shown in Table 4, no statistically significant differences were found between the age groups in terms of General Social Media Usage Total Score, Social Integration and Emotional Connection, Integration with Social Routines, Athlete Social Media Usage Behaviors Total Score, Content Production, Usage Frequency, or Social Media Addiction ($p > .05$). In contrast, Mental Fatigue Awareness Total Score differed significantly between the age groups, $t(184.92) = -3.33$, $p = .001$. The mean Mental Fatigue Awareness score was 3.21 ± 0.90 among participants aged 18–21 years and 3.65 ± 1.11 among those aged 22–26 years. Thus, participants aged 22–26 years demonstrated significantly higher Mental Fatigue Awareness than those aged 18–21 years. Regarding effect size, the difference between the groups was small to moderate ($d = -0.44$). The negative sign of Cohen's d indicates the direction of the difference and is consistent with the higher mean score observed in the 22–26-year age group. For the other variables, Cohen's d values ranged from $|d| = 0.04$ to 0.14, indicating very small differences between the age groups.

Table 5. Comparison of study variables by daily social media use duration

Variable	≤ 1 hour $M \pm SD$	1–2 hours $M \pm SD$	3–5 hours $M \pm SD$	> 5 hours $M \pm SD$	F	p
General Social Media Usage Total Score	2.39 ± 0.77	2.66 ± 0.64	2.55 ± 0.68	2.77 ± 0.69	2.10	.100
Social Integration and Emotional Connection	2.29 ± 0.97	2.43 ± 0.81	2.29 ± 0.83	2.54 ± 0.86	1.31	.273
Integration with Social Routines	2.46 ± 0.88	2.72 ± 0.79	2.58 ± 0.87	2.74 ± 0.87	0.93	.429
Athlete Social Media Usage Behaviors Total Score	2.94 ± 0.96	3.16 ± 0.92	3.12 ± 0.81	3.21 ± 0.78	0.51	.676
Content Production	3.08 ± 0.96	3.29 ± 1.03	3.13 ± 0.83	3.28 ± 0.87	0.69	.560
Usage Frequency	2.85 ± 1.06	3.21 ± 1.03	3.23 ± 0.96	3.31 ± 0.91	0.98	.401
Social Media Addiction	2.78 ± 1.09	2.89 ± 0.97	2.97 ± 0.87	2.98 ± 0.85	0.34	.795
Mental Fatigue Awareness Total Score	3.69 ± 1.22	3.61 ± 0.98^a	3.31 ± 0.95	3.13 ± 1.01^b	3.50	.016

Note. M = Mean; SD = Standard Deviation; F = F value from one-way analysis of variance (ANOVA). Significant differences were determined using Tukey's HSD post hoc test. Within the same row, groups with different superscript letters differ significantly ($p < .05$).

As shown in Table 5, no statistically significant differences were found across daily social media use duration groups in terms of General Social Media Usage Total Score, Social Integration and Emotional Connection, Integration with Social Routines, Athlete Social Media Usage Behaviors Total Score, Content Production, Usage Frequency, or Social Media Addiction ($p > .05$). In contrast, Mental Fatigue Awareness Total Score differed significantly according to daily social media use duration, $F(3, 253) = 3.50$, $p = .016$. Examination of the group means showed that Mental Fatigue Awareness was highest among participants who used social media for ≤ 1 hour per day ($M = 3.69 \pm 1.22$) and lowest among those who used social media for >5 hours per day ($M = 3.13 \pm 1.01$). The Tukey post hoc test indicated a statistically significant difference between participants who used social media for 1–2 hours and those who used it for >5 hours per day ($p = .023$). Specifically, participants reporting 1–2 hours of daily social media use had significantly higher Mental Fatigue Awareness scores ($M = 3.61 \pm 0.98$) than those reporting >5 hours of daily use ($M = 3.13 \pm 1.01$). No statistically significant differences were found in the other pairwise comparisons ($p > .05$).

Table 6. Pearson correlations among the study variables

Değişkenler		1	1a.	1b.	2	2a.	2b.	2c.
	r							
1. General Social Media Usage Total Score	p							
	N							
1a. Social Integration and Emotional Connection	r	,94**						
	p	,00						
	N	257						
1b. Integration with Social Routines	r	,81**	,68**					
	p	,00	,00					
	N	257	257					
2. Athlete Social Media Usage Behaviors Total Score	r	,62**	,53**	,61**				
	p	,00	,00	,00				
	N	257	257	257				
2a. Content Production	r	,55**	,45**	,58**	,93**			
	p	,00	,00	,00	,00			
	N	257	257	257	257			
2b. Usage Frequency	r	,59**	,50**	,57**	,92**	,78**		
	p	,00	,00	,00	,00	,00		
	N	257	257	257	257	257		
2c. Social Media Addiction	r	,54**	,54**	,48**	,85**	,65**	,77**	
	p	,00	,00	,00	,00	,00	,00	
	N	257	257	257	257	257	257	
3. Mental Fatigue Awareness Total Score	r	,11	,05	,20**	,24**	,28**	,24**	,08
	p	,08	,40	,00	,00	,00	,00	,20
	N	257	257	257	257	257	257	257

Note. r = Pearson correlation coefficient; p = significance level; N = sample size. ** $p < .01$.

As shown in Table 6, General Social Media Usage Total Score was positively and strongly correlated with Social Integration and Emotional Connection ($r = .94$, $p < .01$)

and Integration with Social Routines ($r = .81, p < .01$). A positive and moderately strong correlation was also found between General Social Media Usage Total Score and Athlete Social Media Usage Behaviors Total Score ($r = .62, p < .01$). Similarly, General Social Media Usage Total Score was positively and moderately correlated with Content Production ($r = .55, p < .01$), Usage Frequency ($r = .59, p < .01$), and Social Media Addiction ($r = .54, p < .01$). Athlete Social Media Usage Behaviors Total Score was positively and strongly correlated with Content Production ($r = .93, p < .01$), Usage Frequency ($r = .92, p < .01$), and Social Media Addiction ($r = .85, p < .01$). These findings indicate that the total score and subscales of the scale demonstrate the expected strong structural relationships.

With respect to Mental Fatigue Awareness, significant positive but weak correlations were found with Integration with Social Routines ($r = .20, p < .001$), Athlete Social Media Usage Behaviors Total Score ($r = .24, p < .001$), Content Production ($r = .28, p < .001$), and Usage Frequency ($r = .24, p < .001$). In contrast, Mental Fatigue Awareness was not significantly correlated with General Social Media Usage Total Score ($r = .11, p = .08$), Social Integration and Emotional Connection ($r = .05, p = .40$), or Social Media Addiction ($r = .08, p = .20$). Overall, these findings suggest that not all dimensions of social media use are similarly related to Mental Fatigue Awareness. In particular, behavioral dimensions such as Content Production and Usage Frequency showed more pronounced associations with Mental Fatigue Awareness than the broader indicators of general social media use.

Table 7. Multiple linear regression analysis examining the predictive effects of general social media usage and athlete social media usage behaviors on mental fatigue awareness

Predictor Variables	B	SH	β	t	p	Tolerance	VIF
Constant	2.59	0.27	—	9.71	< .001	—	—
General Social Media Usage	-0.09	0.12	-0.06	-0.76	.451	.62	1.61
Athlete Social Media Usage Behaviors	0.33	0.09	0.27	3.55	< .001	.62	1.61

As shown in Table 7, the multiple linear regression model was statistically significant, $F(2, 254) = 7.93, p < .001$. General Social Media Usage and Athlete Social Media Usage Behaviors explained 5.9% of the total variance in Mental Fatigue Awareness ($R^2 = .059$; adjusted $R^2 = .051$). When the predictors were examined individually, General Social Media Usage did not significantly predict Mental Fatigue Awareness ($\beta = -.06, t = -0.76, p = .451$). In contrast, Athlete Social Media Usage Behaviors significantly and positively predicted Mental Fatigue Awareness ($\beta = .27, t = 3.55, p < .001$).

Tolerance and VIF values were examined to assess potential multicollinearity among the predictors. Both predictors had a Tolerance value of .62 and a VIF value of 1.61, indicating no evidence of problematic multicollinearity according to commonly used Tolerance and VIF criteria. However, Tolerance and VIF values alone do not provide a comprehensive assessment of all regression assumptions; therefore, assumptions such as homoscedasticity, linearity, and the distribution of residuals should also be evaluated separately (O'Brien, 2007).

DISCUSSION, CONCLUSION AND SUGGESTIONS

The main finding of the present study was that Athlete Social Media Usage Behaviors significantly predicted Mental Fatigue Awareness and were positively and significantly associated with it. In contrast, General Social Media Usage did not significantly predict Mental Fatigue Awareness.

The literature on social media fatigue indicates that psychological and behavioral stressors are important determinants. In a meta-analysis including 28,357 participants, Ou et al. (2023) demonstrated that behavioral and psychological stressors had more pronounced effects on social media fatigue. Similarly, the systematic review by Zheng and Ling (2021) showed that social media fatigue emerges through the interaction of individual, relational, and environmental factors. Within this framework, the finding that Athlete Social Media Usage Behaviors predicted Mental Fatigue Awareness in the present study suggests that the psychological consequences of social media use may be associated not only with the level of use but also with behavioral characteristics of use. In this regard, the significant associations of Content Production and Usage Frequency with Mental Fatigue Awareness are noteworthy. Unlike passive content consumption, content production represents a more active form of social media use involving various cognitive processes, including planning, attention, decision-making, visual and textual organization, and online interaction. Similarly, increased frequency of social media use may expose individuals to digital stimuli more frequently throughout the day and repeatedly direct their attention toward the digital environment. Experimental studies examining social media use among athletes have also indicated that social media use may be associated with mental fatigue, decision-making, and visuomotor performance (Fortes et al., 2021; Fortes et al., 2022; Fortes et al., 2023). Taken together, these findings suggest that forms of social media use involving repeated exposure and active cognitive engagement may be particularly relevant to athletes' mental processes.

However, the psychological consequences of social media use are not unidirectional and may vary according to the mode of use, platform type, individual characteristics, and sporting context. Indeed, the systematic review by Sij et al. (2026) reported that the psychological consequences of social media use among athletes are heterogeneous; passive use, appearance-based social comparison, and problematic use were more consistently associated with negative outcomes, whereas active and context-dependent use may produce different outcomes. From this perspective, the finding that General Social Media Usage did not significantly predict Mental Fatigue Awareness in the present study suggests that the nature of social media use may be more important than its overall level. In particular, social media may serve different functions for young athletes, including maintaining social connections, communicating with teammates, obtaining sport-related information, presenting personal or athletic identities, and producing content. These functions may generate different psychological experiences even when the overall duration of use is similar. Fiedler et al. (2024), using objective smartphone usage data from young athletes, similarly found that associations between social media use and mental well-being varied according to platform and competitive level. For example, TikTok use was associated with poorer sleep and recovery and higher

stress, whereas Instagram use was associated with more positive affect under certain conditions, with competitive level moderating these associations. These findings support the absence of a significant predictive relationship between General Social Media Usage and Mental Fatigue Awareness in the present study and highlight the importance of evaluating social media use in relation to its content, purpose, and behavioral characteristics.

The study found that Mental Fatigue Awareness was higher among participants aged 22–26 years and among professional athletes. This finding may be interpreted in light of the possibility that professional athletes experience social media use differently in accordance with their sporting goals, performance demands, and social identities. Researchers have suggested that high-performance athletes may use Instagram more functionally for self-improvement and self-presentation rather than passively consuming content produced by other users. This perspective indicates that social comparison may also lead to different outcomes depending on the purpose of social media use. Comparing oneself with more successful peers or elite athletes may provide motivation to improve athletic performance, whereas persistent and negative social comparison may be associated with lower self-esteem and negative affect. In addition, active social media use has been reported to produce different psychological outcomes compared with passive content consumption. Within this framework, the higher Mental Fatigue Awareness observed among professional athletes in the present study may be related not to greater susceptibility to social media use, but rather to greater awareness of the cognitive and psychological demands associated with their intensive sporting routines (Kölling et al., 2019; Mancine et al., 2020; Nimiya et al., 2024; Uhls et al., 2017).

The findings regarding daily social media use duration further support the central perspective of the study. Mental Fatigue Awareness differed significantly according to daily social media use duration, with athletes who used social media for 1–2 hours per day demonstrating higher Mental Fatigue Awareness than those who used social media for more than 5 hours per day. In contrast, no significant differences were found in General Social Media Usage or in the other dimensions of social media use behaviors. This finding suggests that duration of use is not entirely unrelated to Mental Fatigue Awareness but is not, by itself, sufficient to explain differences in this construct. Indeed, among young athletes, the associations of social media use with sleep, stress, and recovery have been reported to vary according to platform and competitive level (Fiedler et al., 2024). Furthermore, an experimental study involving taekwondo athletes found that 60 minutes of social media use did not induce mental fatigue as pronounced as that produced by a conventional mental fatigue task (Faro et al., 2025). These findings highlight substantial differences in how social media use is conceptualized and measured across studies; some focus on time spent, whereas others examine specific platforms or broader constructs such as engagement or problematic use (Brougham, 2021; Fiedler et al., 2024).

In conclusion, Mental Fatigue Awareness differed significantly according to competitive level, age, and daily social media use duration. Although the correlation analysis revealed positive associations between Mental Fatigue Awareness and some dimensions of social media use behaviors, the regression analysis showed that Athlete

Social Media Usage Behaviors significantly predicted Mental Fatigue Awareness. In contrast, General Social Media Usage was not a significant predictor. The model explained 5.9% of the variance in Mental Fatigue Awareness, suggesting that although social media use behaviors may be relevant, Mental Fatigue Awareness is a multifactorial construct.

Future research employing longitudinal and experimental designs may provide a more comprehensive understanding of the temporal and potentially causal relationships between social media use behaviors and Mental Fatigue Awareness. Incorporating variables such as training load, academic demands, sleep, recovery, and psychological factors into future models may further clarify the factors associated with Mental Fatigue Awareness among young athletes.

Kısaltmalar / Abbreviations

SD — Standard Deviation (Standart Sapma)
X — Mean (Ortalama)
t — t test statistic (t test istatistiği)
p — Significance value (Anlamlılık değeri)
n — Sample size (Örneklem büyüklüğü)
N — Total number of participants (Toplam katılımcı sayısı)
Min — Minimum value (Minimum değer)
Max — Maximum value (Maksimum değer)
% — Percentage (Yüzde)
SS — Standard deviation (Standart sapma)

Beyanlar / Declarations

Etik Onay ve Katılım Onayı / Ethics approval and consent to participate

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During the preparation and writing of this study, scientific, ethical, and citation rules were followed in accordance with the "Higher Education Institutions Scientific Research and Publication Ethics Guidelines." No alterations were made to the collected data, and this study has not been submitted to any other academic publication platform for evaluation. The data collection instruments used in the study were reviewed and approved from an ethical perspective by the Human Research Social and Humanities Ethics Committee of Erzincan Binali Yıldırım University (Decision Date: April 30, 2025; Protocol No.: 04/14). The authors assume full responsibility for any potential ethical violations that may arise in relation to this manuscript.

Veri Ve Materyal Erişilebilirliği / Availability of data and material

Bu çalışmanın bulgularını destekleyen veriler, makul bir talep üzerine sorumlu yazardan temin edilebilir. Veri setine yalnızca akademik amaçlarla erişim sağlanacak olup verilerin herhangi bir şekilde kullanılması durumunda özgün çalışmaya atıfta bulunulması ve katılımcıların gizliliğinin korunması gerekmektedir.

The data that support the findings of this study are available from the corresponding author upon reasonable request. The dataset will be accessible only for academic purposes, and any use of the data will recognize the original study and maintain the confidentiality of the participants.

Çıkar Çatışması / Competing interests

Yazar, bu çalışmada sunulan araştırmayı etkileyebilecek herhangi bir mali çıkar çatışmasının veya kişisel ilişkisinin bulunmadığını beyan etmektedir.

The author declares that there are no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Yazar Katkıları / Authors' Contribution Statement

Yazar, araştırmanın tüm aşamalarını yürütmüş, çalışmanın içeriğini eleştirel bir bakış açısıyla gözden geçirmiş ve makalenin nihai hâlini onaylamıştır.

The author conducted all stages of the study, critically reviewed the content, and approved the final version of the manuscript.

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References / Kaynaklar

- Akarsu, M., Ilbak, İ., & Gündoğdu, C. (2024). Sporcu sosyal medya kullanım davranışları ölçeği: Geçerlik ve güvenilirlik çalışması. *Yeni Medya*, (16), 317-328. <https://doi.org/10.55609/yenimedya.1458117>
- Alix-Fages, C., González-Cano, H., Baz-Valle, E., & Balsalobre-Fernández, C. (2023). Effects of mental fatigue induced by stroop task and by social media use on resistance training performance, movement velocity, perceived exertion, and repetitions in reserve: A randomized and double-blind crossover trial. *Motor Control*, 27(3), 645-659. <https://doi.org/10.1123/mc.2022-0129>
- Barry, CT, Moran-Miller, K., Levy, HF ve Gray, T. (2024). Social media engagement, perceptions of social media costs and benefits, and wellbeing in college student-athletes, *Journal of American College Health*, 72 (8), 2938-2947, <https://doi.org/10.1080/07448481.2022.2142797>
- Başol, G., & Kocadağ-Ünver, T. (2018). Genel Sosyal Medya Kullanım Düzeyi Ölçeği: Geçerlik ve Güvenirlik Çalışması. *International Learning Teaching And Educational Research Congress (ILTER-2018)*, s. 823-832. Amasya, Türkiye.
- Brougham, J. (2021). *The impact of social media on the mental health of student-athletes*. Illinois State University.
- Büyükköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2021). Bilimsel araştırma yöntemleri (30. bs.). Pegem Akademi.
- Demir, O., & Yıldız, S. (2020). Futbolda sosyal medya iletişimi ve marka değeri: Trabzonspor ve taraftarları üzerine bir çalışma. *The Journal of International Scientific Researches*, 5(2), 111-127. <https://doi.org/10.23834/isrjournal.673051>
- Faro, H., Franchini, E., Cavalcante-Silva, D., da Silva, R. D. M., Barbosa, B. T., da Silva Machado, D. G., & de Sousa Fortes, L. (2025). Do prolonged social media use or cognitive tasks impair neuroelectric and visuomotor performance in taekwondo athletes? A randomized and controlled trial. *Psychology of Sport and Exercise*, 76, 102768. <https://doi.org/10.1016/j.psychsport.2024.102768>
- Fiedler, R., Geber, J., Reichert, M., & Kellmann, M. (2024). Young athletes' mental well-being is associated with smartphone social networking application usage and moderated by performance level and app type. *Scientific Reports*, 14(1), 27048. <https://doi.org/10.1038/s41598-024-77418-2>
- Fortes, L. S., Fonseca, F. S., Nakamura, F. Y., Barbosa, B. T., Gantois, P., de Lima-Júnior, D., & Ferreira, M. E. (2021). Effects of mental fatigue induced by social media use on volleyball decision-making, endurance, and countermovement jump performance. *Perceptual and Motor Skills*, 128(6), 2745-2766. <https://doi.org/10.1177/00315125211040596>
- Fortes, L. S., Berriel, G. P., Faro, H., Freitas-Junior, C. G., & Peyré-Tartaruga, L. A. (2022). Can prolongate use of social media immediately before training worsen high level male volleyball players' visuomotor skills?. *Perceptual and Motor Skills*, 129(6), 1790-1803. <https://doi.org/10.1177/00315125221123635>
- Fortes, L. S., Gantois, P., de Lima-Júnior, D., Barbosa, B. T., Ferreira, M. E. C., Nakamura, F. Y., ... & Fonseca, F. S. (2023). Playing videogames or using social media applications on smartphones causes mental fatigue and impairs decision-making performance in amateur boxers. *Applied Neuropsychology: Adult*, 30(2), 227-238. <https://doi.org/10.1080/23279095.2021.1927036>
- George, D., & Mallery, P. (2010). *SPSS for Windows step by step: A simple guide and reference*, 17.0 update (10th ed.). Pearson.
- Gerwin, R. L., Kaliebe, K., & Daigle, M. (2018). The interplay between digital media use and development. *Child and adolescent psychiatric clinics of North America*, 27(2), 345-355. <https://doi.org/10.1016/j.chc.2017.11.002>

- Jenkins-Guarnieri, M. A., Wright, S. L., & Johnson, B. (2013). Development and validation of a social media use integration scale. *Psychology of popular media culture*, 2(1), 38.
- Kara, M., Kara, N. Ş., & Çetin, M. Ç. (2024). Sporcularda mental yorgunluk farkındalık ölçeği (smyfö): geçerlik ve güvenirlik çalışması. *Spormetre Beden Eğitimi ve Spor Bilimleri Dergisi*, 22(1), 53-69. <https://doi.org/10.33689/spormetre.1372921>
- Karasar, N. (2022). Bilimsel araştırma yöntemi (37. bs.). Nobel Yayıncılık.
- Kim, J., Yook, D., & Han, S. (2026). The Impact of Mental Fatigue on Decision-Making Abilities, Visual Search Strategies, and Simple Reaction Time in Handball Players: A Randomized Crossover Study. *Sports*, 14(4), 128. <https://doi.org/10.3390/sports14040128>
- Mancine, R. P., Gusfa, D. W., Moshrefi, A. & Kennedy, S. F. (2020). Prevalence of disordered eating in athletes categorized by emphasis on leanness and activity type—a systematic review. *J. Eat. Disorders* 8, 1–9. <https://doi.org/10.1186/s40337-020-00323-2>
- Montag, C., Yang, H., & Elhai, J. D. (2021). On the psychology of TikTok use: A first glimpse from empirical findings. *Frontiers in public health*, 9, 641673. <https://doi.org/10.3389/fpubh.2021.641673>
- Nimiya, A., Vasudha, K. G., Shetty, S. B., Pai, K., Reshma, N. S., Radhika, K., ... & D'Souza, P. (2024). Sex difference in body image, exercise motivation and social comparison among Instagram users: a cross sectional study. *F1000Research* 2024, 12:1506 (<https://doi.org/10.12688/f1000research.134799.2>)
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill
- O'Brien, R.M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Qual Quant* 41, 673–690. <https://doi.org/10.1007/s11135-006-9018-6>
- Siaj, J., Domínguez-Balmaseda, D., Vos-Saz, A., & Bonilla, I. (2026). The impact of social media on athletes' mental health: a systematic review. *Frontiers in Sports and Active Living*, 8, 1876771. <https://doi.org/10.3389/fspor.2026.1876771>
- Uhls, Y., Ellison, N. & Subrahmanyam, K. (2017). Benefits and costs of social media in adolescence. *Pediatrics* 140(Suppl. 2), 67–70. <https://doi.org/10.1542/peds.2016-1758E>
- Walter, N., Heinen, T., & Elbe, A. M. (2022). Factors associated with disordered eating and eating disorder symptoms in adolescent elite athletes. *Sports Psychiatry: Journal of Sports and Exercise Psychiatry*, 1(2), 47. <https://doi.org/10.1024/2674-0052/a000012>
- Yaman, M. S., Çakır, Z., Çatıktaş, F., Türkmen, M., Şengönül, A., Gönen, M., Öktem, T., Güzel, S., & Yel, K. (2026). Physical activity, technology use, and AI anxiety among university students: Associations with academic integrity attitudes. *SAGE Open*, 16(3), 1–28. <https://doi.org/10.1177/21582440261482059>
- Zheng, H., & Ling, R. (2021). Drivers of social media fatigue: A systematic review. *Telematics and informatics*, 64, 101696. <https://doi.org/10.1016/j.tele.2021.101696>

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