

The Relationship Between Internet Addiction, Depression, Circadian Preferences and Coping Methods

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Abstract

Introduction: Internet addiction (IA) is a clinical phenomenon characterized by excessive and compulsive internet use, which impairs daily functioning and is often accompanied by withdrawal and tolerance symptoms when access is limited. IA adversely affects quality of life and mental well-being. Recent studies have shown a strong association between IA and psychiatric disorders. This study aimed to examine the relationship between internet addiction, depression, circadian preferences, and coping strategies.

Materials and Methods: The study included 200 healthy volunteers. Participants completed the Sociodemographic Information Form, Young Internet Addiction Test-Short Form (YIAT-SF), Morningness-Eveningness Questionnaire (MEQ), Coping Orientation to Problems Experienced (COPE) Inventory, and Beck Depression Inventory (BDI).

Results: A statistically significant correlation was found between total scores on the Young Internet Addiction Test-Short Form (YIAT-SF) and the Beck Depression Inventory (BDI). Regarding coping strategies assessed through the COPE Inventory, individuals with higher internet addiction scores were found to use certain maladaptive strategies significantly more frequently, including mental disengagement, denial, humor, behavioral disengagement, restraint-coping, substance use, and acceptance. Furthermore, individuals classified as moderate evening type exhibited significantly higher YIAT-SF scores compared to all other chronotypes.

Conclusion: This study highlights the role of chronotype and coping strategies in the psychological effects of internet addiction. Individuals with a moderate evening chronotype and those using maladaptive coping methods appear to be at greater risk. Addressing these factors may be critical for developing targeted preventive and therapeutic interventions.

Key words: Internet addiction disorder; depression; circadian rhythm; coping skills

Introduction

The internet has become an integral element of contemporary life, widely utilized for acquiring information, facilitating communication, and accessing various forms of entertainment. Its extensive use across educational, professional, and social domains has deeply embedded it into daily routines. However, increasing empirical evidence suggests that excessive or poorly regulated internet use may be associated with adverse outcomes, including compromised physical and mental well-being, diminished academic and occupational performance, and deterioration in social functioning and quality of life (1,2). Healthy internet use refers to controlled and purposeful engagement that does not interfere with an individual's daily functioning. In contrast, internet addiction is increasingly conceptualized as a behavioral addiction, characterized by compulsive and excessive internet use that disrupts everyday life. It is commonly associated with clinical symptoms such as withdrawal, tolerance, and impaired social or occupational functioning, often

requiring increasing amounts of time spent online to achieve the same level of satisfaction (3). Despite its growing prevalence, there is no universally accepted diagnostic framework for internet addiction. In the literature, it is variously referred to as “problematic internet use” or “pathological internet use,” reflecting ongoing terminological and conceptual inconsistencies (4). While the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) does not classify internet addiction as a distinct disorder, it includes “Internet Gaming Disorder” as a condition warranting further study (5). Internet addiction is frequently associated with psychiatric comorbidities. Studies indicate that internet addiction is commonly linked to depression, anxiety, and stress-related disorders (6). Clinical and epidemiological studies have shown that psychiatric comorbidities are common among individuals diagnosed with Internet addiction. For example, one study reported that 86% of such individuals had at least one additional DSM-IV

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diagnosis, and most initially sought help for psychiatric symptoms (7). Another source emphasized that comorbid psychiatric disorders may complicate treatment and increase the risk of relapse (8). In a clinical sample, 50% of individuals with Internet addiction were diagnosed with Axis I disorders and 38% with Axis II disorders, suggesting that mood disorders and other psychiatric conditions may aggravate the clinical picture (9). A large-scale study conducted in Turkey also found significant associations between high-risk Internet use and symptoms of depression, attention deficit, and hyperactivity among high school students (10). These findings indicate a substantial overlap between Internet addiction and psychiatric disorders, highlighting the importance of considering such comorbidities during clinical assessment and treatment planning. Coping strategies play a crucial role in the development of internet addiction. Studies indicate a strong link between maladaptive coping mechanisms—particularly avoidance-based strategies such as rumination and acting out—and excessive internet use, as individuals may turn to the internet to escape negative emotions (11,12). Reliance on such strategies weakens psychological resilience and self-control, which are protective factors against addiction, thereby increasing vulnerability to internet addiction (12). Although internet use may offer short-term relief from distress, prolonged and uncontrolled use can exacerbate psychological difficulties and contribute to long-term mental health issues (11). The relationship between biological rhythms and internet addiction has attracted growing research interest. Biological rhythms regulate key physiological functions such as the sleep-wake cycle, hormonal secretion, body temperature, and metabolism. The circadian rhythm, following a 24-hour cycle, determines individual chronotypes, classifying people as morning or evening types (13). Morning types are typically more alert earlier in the day, whereas evening types are more active and productive at night (14). Studies indicate that evening-type individuals have higher rates of depression, suicidal ideation, poor sleep quality, and addictive behaviors. Nocturnal chronotypes tend to spend more time on screens, have disrupted sleep, and show greater susceptibility to internet addiction (15). Circadian rhythm disturbances may impair stress-coping abilities, increasing vulnerability. Among evening-type individuals, irregular sleep patterns and the use of the internet as an avoidance strategy further elevate the risk of developing internet addiction (16). This study investigates the relationship between internet addiction, depressive symptoms,

circadian preferences, and coping strategies in healthy individuals, aiming to inform effective intervention approaches.

Hypotheses of the study:

- Internet addiction is positively associated with depressive symptoms.
- Individuals with higher levels of internet addiction are more likely to use dysfunctional coping strategies to manage stress.
- Evening-type individuals are more susceptible to both depressive symptoms and internet addiction.

Materials and Methods

Study design and sample: This cross-sectional and descriptive study was conducted between May 25, 2020, and September 25, 2020, at a university hospital. A total of 200 healthy volunteers aged between 18 and 35 years were recruited from students, staff, and patient companions who visited the hospital during the study period. Inclusion criteria required no known history of physical or psychiatric illness, no prior use of psychotropic medication, no apparent cognitive impairment or intellectual disability, and the ability to read and write. These criteria were assessed based on participants' self-reports and their ability to complete the forms independently. Reading and writing literacy was considered a practical indicator of adequate cognitive functioning for participation. All data were collected in a quiet room under the supervision of a research assistant, using standardized data collection forms and psychometric tools appropriate to the study's objectives. Power analysis was conducted prior to the study. Based on an expected medium effect size (Cohen's $d = 0.5$), a significance level of $\alpha = 0.05$, and a power of 0.80, the required sample size was calculated to be 128 participants. Our final sample included 200 individuals, exceeding the required number and ensuring sufficient statistical power for the planned analyses.

Measurement Tools

Sociodemographic information form: A structured questionnaire developed by the researchers was used to collect demographic and background information, including age, gender, education level, marital status, economic status, age of internet use initiation, and family history of mental illness. The form was administered through interviewer-assisted surveys.

Young internet addiction test-short form (YIAT-SF): Originally developed by Young (1998) and later adapted into a short form by Pawlikowski et al.,

the YIAT-SF consists of 12 items rated on a five-point Likert scale. Higher scores indicate greater levels of internet addiction. The Cronbach's alpha internal consistency coefficient of the scale was reported as 0.85. The validity and reliability of the Turkish adaptation were confirmed (17).

Morningness-eveningness questionnaire (MEQ): The MEQ assesses circadian preferences, classifying individuals into morning, intermediate, or evening types based on their sleep-wake patterns. The scoring range of the scale is 16 to 86, with higher scores indicating a stronger morning preference. The Cronbach's alpha internal consistency coefficient of the scale was reported as 0.81. The Turkish version of the scale was validated for reliability (18).

Beck depression inventory (BDI): The BDI is a 21-item, Likert-type self-report scale used to assess the severity of depressive symptoms. The total score ranges from 0 to 63, with scores above 17 indicating the presence of depression. The Cronbach's alpha internal consistency coefficient was reported as 0.81. The Turkish adaptation of the scale was validated for reliability (19).

Coping orientation to problems experienced (COPE) inventory: The Coping Orientation to Problems Experienced (COPE) Inventory, developed by Folkman and Lazarus (1980), consists of various coping strategies categorized into three main types. Problem-focused coping strategies include active coping, instrumental social support, restraint-coping, suppression of competing activities, and planning, which involve directly addressing and managing stressors. Emotion-focused coping strategies focus on regulating emotional responses to stress and include positive reinterpretation and growth, turning to religion, humor, emotional social support, and acceptance. Maladaptive coping strategies, which are considered less functional, consist of mental disengagement, focus on and venting emotions, denial, behavioral disengagement, and substance use. The validity and reliability of the Turkish adaptation of the scale were confirmed by Ağargün et al. (20).

Ethical approval: All participants took part voluntarily and provided written informed consent in accordance with the Declaration of Helsinki. Ethical approval for the study was obtained from the Non-Interventional Research Ethics Committee of Van Yüzüncü Yıl University.

Statistical analysis: Descriptive statistics were reported as mean, standard deviation, and minimum–maximum for continuous variables, and as frequencies and percentages for categorical variables. The normality of data distribution was

assessed prior to analysis. Group comparisons were conducted using Independent Samples t-test for two-group comparisons and one-way ANOVA for multiple groups. When ANOVA yielded significant results, post hoc comparisons were performed using the Duncan test. Pearson correlation coefficients were calculated to assess relationships between continuous variables. The statistical significance level (α) was set at 0.05. All analyses were performed using IBM SPSS Statistics for Windows, version 23.

Results

A total of 200 healthy individuals between the ages of 18 and 35 participated in the study, of whom 76 (38%) were male and 124 (62%) were female. The mean age of the participants was 23.97 ± 3.68 years.

Comparison of BDI, YIAT-SF, and COPE scale scores by gender: There was no statistically significant difference between male and female participants in terms of total scores on the BDI and the YIAT-SF. However, analysis of the COPE Inventory scores revealed significant gender differences in certain coping strategies. Female participants reported significantly higher use of mental disengagement compared to males ($p=0.001$). In addition, women scored significantly higher on strategies such as focusing on and venting emotions ($p=0.010$), turning to religion ($p=0.001$), emotional social support ($p=0.021$), and acceptance ($p=0.020$). These findings suggest that female participants are more likely to engage in emotional and spiritual coping strategies and to take a more active role in managing stress. Conversely, male participants reported significantly greater use of the substance use coping strategy compared to female participants ($p=0.012$), indicating a higher tendency among males to resort to substance use in response to stress. (Table 1)

Evaluation of the relationship between internet addiction, depression, and coping strategies: A statistically significant positive correlation was observed between participants' total scores on the YIAT-SF and the BDI ($p=0.006$). This result indicates that higher levels of internet addiction are associated with increased severity of depressive symptoms (Table 2). Analysis of coping strategies using the COPE Inventory revealed that individuals with higher internet addiction scores were more likely to use certain coping methods significantly more frequently. These included mental disengagement ($p=0.001$), denial ($p=0.001$), humor ($p=0.035$), behavioral

Table 1: Comparison of BDI, YIAT-SF, and COPE Scale Scores by Gender

	Male(76)	Female(124)	t	p
	Mean (SD)	Mean (SD)		
BDI (Total)	5.1 (6.2)	6.1 (7.5)	0.9	0.327
YIAT-SF	25.4 (7.7)	24.6 (7.3)	0.6	0.502
COPE Problem Focused Coping				
Active coping	12.2 (2.5)	11.9 (2.6)	0.6	0.501
Use of instrumental social support	11.3 (3)	11.7 (3.2)	0.8	0.405
Restraint coping	9.2 (2.2)	9.3 (2.5)	0.1	0.868
Suppression on competing activities	10.5 (2.1)	10.3 (2.1)	0.5	0.581
Planning	12.7 (2.5)	12.6 (2.6)	0.6	0.739
COPE Emotion Focused Coping				
Positive reinterpretation and growth	12.5 (2.4)	13.1 (2.2)	1.7	0.074
Turning to religion	11.7 (3.7)	13.2 (3.1)	3.2	0.001
Humor	8.6 (3.2)	8.1 (3.1)	1.1	0.252
Use of emotional social support	10.3 (3.2)	11.4 (3)	2.3	0.021
Acceptance	9.3 (2.6)	10.2 (2.6)	2.3	0.020
COPE Maladaptive Coping				
Mental disengagement	9.1 (2.4)	10.6 (2.5)	4.2	0.001
Focus on and venting emotion	10.6 (2.8)	11.7 (2.7)	2.6	0.010
Denial	6.5 (2.4)	6.4 (2.6)	0.8	0.932
Behavioral disengagement	6.4 (2.5)	6.6 (2.7)	0.6	0.513
Substance use	5.9 (3.1)	4.9 (2.2)	2.5	0.012

* Independent samples t-test, $p \leq 0.05$, BDI (Beck Depression Inventory), YIAT-SF (Young Internet Addiction Test – Short Form), COPE (Coping Orientation to Problems Experienced Inventory)

Table 2: Correlation Between Internet Addiction Score and Other Scale Scores

	YIAT-SF (TOTAL SCORE)	
	r	p
BDI	0.194**	0.006
COPE Problem Focused Coping		
Active coping	0.024	0.738
Use of instrumental social support	0.021	0.766
Restraint coping	0.172*	0.015
Suppression on competing activities	0.102	0.152
Planning	0.093	0.189
COPE Emotion Focused Coping		
Positive reinterpretation and growth	0.005	0.947
Turning to religion	0.036	0.613
Humor	0.149*	0.035
Use of emotional social support	0.109	0.124
Acceptance	0.233**	0.001
COPE Maladaptive Coping		
Mental disengagement	0.225**	0.001
Focus on and venting emotion	0.135	0.058
Denial	0.252**	0.001
Behavioral disengagement	0.280**	0.001
Substance use	0.247**	0.001

Pearson correlation, * $p \leq 0.05$, ** $p \leq 0.01$, BDI (Beck Depression Inventory), YIAT-SF (Young Internet Addiction Test- Short Form), COPE (Coping Orientation to Problems Experienced Inventory)

disengagement ($p = 0.001$), restraint coping ($p = 0.015$), substance use ($p = 0.001$), and acceptance ($p = 0.001$) (Table 2). These findings suggest that individuals with higher levels of internet addiction tend to rely more on dysfunctional or emotion-focused coping strategies, rather than adaptive,

problem-focused approaches. The preference for maladaptive coping methods may indicate a pattern of avoiding direct engagement with stressors, which could contribute to the persistence or worsening of psychological symptoms over time.

Evaluation of circadian preferences in relation to internet addiction, depression, and coping strategies: Analysis of participants' BDI scores showed that individuals with a moderate evening chronotype had significantly higher depression scores compared to both morning and intermediate types ($p= 0.001$). Similarly, individuals classified as intermediate type scored higher than those identified as morning type. These findings suggest that depressive symptoms may be more prevalent among individuals with a moderate evening preference. The total scores from the YIAT-SF were also significantly higher in individuals classified as moderate evening type compared to all other chronotypes ($p= 0.001$). This suggests a greater vulnerability to internet addiction in this group. Coping strategies assessed through the COPE Inventory revealed significant differences across chronotype groups. Morning-type individuals reported significantly greater use of positive reinterpretation and growth compared to moderate evening types ($p= 0.049$). In contrast,

individuals with a moderate evening chronotype reported significantly higher use of behavioral disengagement compared to both morning and intermediate types ($p= 0.024$). Furthermore, substance use as a coping strategy was significantly more common among moderate evening-type individuals ($p= 0.039$). Overall, these findings suggest that individuals with a moderate evening chronotype are more likely to adopt maladaptive coping strategies, which may increase their susceptibility to depression and internet addiction. Conversely, the more frequent use of adaptive and constructive coping methods among morning-type individuals may be linked to more favorable psychosocial outcomes (Table 3). *Correlation analysis results between continuous variables:* The results of the correlation analysis indicated that increasing age was significantly associated with lower scores on the YIAT-SF ($r = -0.160, p= 0.023$).

Table 3: Relationship Between Morningness- Eveningness Scale Scores and Other Scale Scores

	MEQ				F	p
	Sabah tipe yakın		Akşamcıl Tipe			
	Mean (SD)	Mean(SD)	Mean (SD)	Mean (SD)		
BDI*	1.4 ^a (3.2)	3.9 ^{ab} (5.3)	6.3 ^b (7.4)	10.7 ^c (8.6)	7.65	0.001
YIAT-SF*	22.9 ^a (5.2)	22.9 ^a (6.6)	25.1 ^a (6.2)	30.3 ^b (11.4)	6.68	0.001
COPE Problem Focused Coping						
Active coping	13 (2.3)	12.3 (2.6)	11.9 (2.5)	11.2 (2.5)	1.66	0.176
Use of instrumental social support	12 (3.4)	12.1(2.8)	11.3 (3.2)	11(3.5)	1.3	0.274
Restraint coping	9.9 (2.07)	9.3 (2.6)	9.1 (2.08)	9.4 (3.3)	0.33	0.898
Supression on competing activities	11.6 (2.3)	10.4 (2.2)	10.2 (2.09)	10.7 (1.7)	1.55	0.203
Planning	13.6 (1.3)	13 (2.5)	12.5 (2.6)	11.8 (2.7)	1.66	0.172
COPE Emotion Focused Coping						
Positive reinterpretation and growth*	13.7 ^a (1.1)	13.3 ^{ab} (2.1)	12.6 ^{ab} (2.5)	12.2 ^b (2.08)	2.67	0.049
Turning to religion	14 (1.9)	13 (3.4)	12.4 (3.5)	11.6 (3.9)	1.86	0.136
Humor	6.5 (2.6)	8.1 (2.9)	8.4 (3.2)	9.3 (3.3)	2.13	0.098
Use of emotional social support	11.4 (3.9)	11.5 (2.8)	10.8 (3.3)	10.2 (2.9)	1.29	0.274
Acceptance	10 (1.9)	9.7 (2.6)	9.7 (2.6)	10.9 (2.7)	1.6	0.190
COPE Maladaptive Coping						
Mental disengagement	9.5 (2.6)	9.6 (2.8)	10.2 (2.3)	10.9 (2.9)	1.84	0.140
Focus on and venting emotion	10.5 (3.2)	11.6 (2.6)	11.07 (2.8)	11.5 (2.7)	0.87	0.454
Denial	5.7 (1.7)	6.1 (2.6)	6.7 (2.4)	6.6 (3.03)	1.47	0.222
Behavioral disengagement *	5.2 ^a (1.6)	6.1 ^a (2.7)	6.7 ^{ab} (2.4)	7.6 ^b (3.2)	3.23	0.024
Substance use*	4.2 ^a (0.9)	5.05 ^a (2.5)	5.2 ^{ab} (2.4)	6.6 ^b (3.5)	2.85	0.039

One-way analysis of variance (ANOVA), $p \leq 0.05$, *Duncan (Post Hoc) test, a, b, ab, c : Indicate statistically different groups based on Duncan's multiple comparison test ($p \leq 0.05$) BDI(Beck Depression Inventory, YIAT-SF (Young Internet Addiction Test- Short form) , COPE (Coping Orientation to Problems Experienced Inventory) The definite 'evening type' group ($n=1$) was excluded from the analysis due to lack of valid post hoc comparison results.

Table 4: Correlation Analysis of Continuous Variables Among Participants

	Age	BDI	YIAT-SF	Positive reinterpretation and growth	Mental disengagement	Focus on and venting emotion	Use of instrumental social support	Denial	Turning to religion	Humor	Behavioral disengagement	Restraint coping	Use of emotional social support	Substance use	Acceptance	Suppression on competing activities	Planning	Active coping
Age	r 1																	
BDI	r .111	1																
YIAT-SF	r -.160*	.194**	1															
Positive reinterpretation and growth	r -.082	-.223**	.005	1														
Mental disengagement	r -.080	.155*	.225**	.229**	1													
Focus on and venting emotion	r -.002	.112	.135	.367**	.353**	1												
Use of instrumental social support	r .048	.070	.021	.498**	.122	.403**	1											
Denial	r -.003	.323**	.252**	-.015	.412**	.028	.030	1										
Turning to religion	r -.037	-.146*	.036	.309**	.325**	.176*	.102	.118	1									
Humor	r -.060	.153*	.149*	.198**	.345**	.160*	.236**	.377**	-.035	1								
Behavioral disengagement	r .060	.287**	.280**	-.078	.378**	.229**	.007	.622**	.057	.379**	1							
Restraint coping	r -.050	.165*	.172*	.224**	.335**	.248**	.224**	.410**	.161*	.406**	.524**	1						
Use of emotional social support	r -.048	-.026	.109	.492**	.284**	.537**	.726**	.092	.220**	.276**	.131	.276**	1					
Substance use	r .008	.364**	.247**	-.130	.208**	.079	.052	.567**	-.085	.361**	.579**	.338**	.052	1				
Acceptance	r .027	.141*	.233**	.255**	.390**	.365**	.258**	.206**	.161*	.362**	.410**	.433**	.316**	.196**	1			
Suppression on competing activities	r -.023	.031	.102	.448**	.217**	.268**	.409**	.227**	.132	.285**	.222**	.464**	.411**	.214**	.304**	1		
Planning	r .111	-.144*	-.093	.630**	.083	.262**	.471**	-.089	.176*	.143*	-.169*	.171*	.420**	-.165*	.153*	.436**	1	
Active coping	r .035	-.114	-.024	.562**	.045	.253**	.379**	.030	.159*	.173*	-.048	.202**	.364**	-.039	.105	.387**	.678**	1

Pearson correlation, *p≤0.05, **p≤0.01, BDI (Beck Depression Inventory), YIAT-SF (Young Internet Addiction Test- Short Form) , COPE (Coping Orientation to Problems Experienced Inventory)

However, no statistically significant relationships were found between age and depressive symptoms or coping strategies among participants (Table 4). In contrast, higher BDI scores were positively correlated with higher YIAT-SF scores ($r = 0.194$, $p = 0.003$), as well as with several maladaptive and emotion-focused coping strategies. Specifically, significant positive correlations were observed with mental disengagement ($r = 0.155$, $p = 0.031$), denial ($r = 0.323$, $p = 0.001$), behavioral disengagement ($r = 0.287$, $p = 0.001$), humor ($r = 0.153$, $p = 0.034$), restraint coping ($r = 0.165$, $p =$

0.017), substance use ($r = 0.364$, $p = 0.001$), and acceptance ($r = 0.141$, $p = 0.042$). Conversely, depression scores were negatively associated with the use of adaptive and constructive coping strategies such as positive reinterpretation and growth ($r = -0.223$, $p = 0.001$), planning ($r = -0.144$, $p = 0.032$) and turning to religion ($r = -0.146$, $p = 0.029$). These findings suggest that as depressive symptoms increase, participants tend to rely more on maladaptive or emotion-focused coping strategies-such as avoidance, disengagement, and substance use while the use of

problem-focused and adaptive strategies declines. Additionally, the positive correlation observed between depression and internet addiction supports the notion that psychological distress may contribute to problematic internet use through ineffective coping mechanisms.

Discussion

The present study revealed that higher levels of internet addiction were significantly associated with greater depressive symptoms. Individuals with a moderate evening chronotype were more prone to both internet addiction and depression. Additionally, those with higher addiction scores more often relied on maladaptive, emotion-focused coping strategies rather than problem-focused approaches. These findings highlight the complex nature of internet addiction and the influence of chronotype and coping styles on its severity. The results demonstrated that individuals with higher internet addiction scores also exhibited significantly higher depression scores, a finding that aligns with previous studies (21). Particularly in research conducted among university students in Turkey, individuals with internet addiction were reported to experience heightened levels of depression, anxiety, and stress (22). Moreover, studies have shown that the relationship between internet addiction and depression is more pronounced among individuals with poor stress-coping skills. Those with lower psychological flexibility tend to use the internet as a means of escaping negative emotions, which exacerbates the adverse effects of internet addiction on depression (23). These findings underscore the bidirectional nature of the relationship between internet addiction and depression, suggesting that excessive internet use may contribute to worsening depressive symptoms, while pre-existing depression may drive individuals toward compulsive internet use as a maladaptive coping mechanism. In the context of behavioral factors, one of the key findings was the significant relationship between chronotype and internet addiction. Participants classified as moderate evening types reported notably higher levels of problematic internet use. This finding is consistent with earlier research showing that evening-oriented individuals are more susceptible to technology-related behavioral addictions, particularly involving social media and late-night usage patterns (24). Turkish studies have further confirmed that evening-type individuals face an elevated risk of internet addiction, regardless of demographic factors such as age and gender (25). Moreover, findings on social media engagement have indicated that

evening-type individuals are more active during nighttime hours, leading to prolonged digital interactions that may increase the risk of problematic internet use (26). These results emphasize the relevance of chronotype in understanding individual differences in internet usage behavior. This study also highlights a significant association between internet addiction and coping strategies, with individuals exhibiting internet addiction relying more heavily on maladaptive coping mechanisms. Consistent with previous research, a strong positive correlation was found between internet addiction and avoidant or emotionally focused coping strategies, while a negative correlation was observed with problem-focused and adaptive coping strategies (27). Notably, avoidance-based strategies such as mental disengagement, behavioral disengagement, denial, and substance use were significantly more prevalent among individuals with internet addiction. This finding suggests that individuals struggling with internet addiction tend to use the internet as an escape tool rather than directly confronting stressors (28). Empirical evidence from studies conducted in Turkey further corroborates this pattern, demonstrating that individuals with internet addiction are significantly more likely to employ avoidant and emotionally focused coping strategies compared to non-addicted individuals (29). The results of this study reinforce the notion that internet addiction is closely linked to ineffective and potentially detrimental coping mechanisms, further predisposing individuals to psychological distress and exacerbating their reliance on maladaptive behavioral patterns.

Limitations of the study: Several limitations of this study should be acknowledged. First, the cross-sectional design does not permit causal inferences about the relationships between internet addiction, depressive symptoms, chronotype, and coping strategies. Although significant associations were found, the directionality of these relationships remains unclear. The restricted age range of 18 to 35 years also limits the generalizability of the findings to broader populations. Relying solely on self-report measures may affect the validity of the results; future studies should consider incorporating objective methods such as clinical evaluations or behavioral observations. Moreover, the study did not distinguish between different types of internet use (e.g., gaming, social networking, academic use), which may have varying psychological effects. Chronotype was assessed only through self-report, which may not fully capture biological circadian tendencies. Lastly, potential confounding

factors—such as individual psychological traits or environmental stressors—were not controlled, which may have influenced the observed associations.

Conclusion

This study contributes to the literature by revealing the complex associations between internet addiction, depressive symptoms, coping strategies, and chronotype. The findings indicate that internet addiction is not only a behavioral tendency but also closely related to psychological well-being and individual differences in daily rhythm and stress management. Future research should include longitudinal designs and broader, more diverse samples to better clarify the direction and nature of these relationships. Preventive efforts may benefit from psychoeducation programs that promote healthy internet use, emotional regulation, and effective coping skills. Interventions that consider chronotype characteristics—such as encouraging regular sleep and structured daily routines—could also help reduce the risk of problematic internet use. In conclusion, internet addiction is a multifaceted issue with significant implications for mental health. A comprehensive approach that integrates individual, clinical, and public health strategies is essential for promoting healthier technology use and improving psychological well-being.

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