MHA MEDIHEALTH ACADEMY
Journal of Nursing Care Research
Original Article
doi: 10.51271/JNCR-0059

Problematic internet use in adolescents: associations with sociodemographic and clinical characteristics

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Cite this article as: Şermet Kaya Ş, Ayyıldız D, & Düzgün N. (2026). Problematic internet use in adolescents: associations with sociodemographic and clinical characteristics. *J Nurs Care Res, 3*(4), 126-132. doi:10.51271/JNCR-0059

Received: 29.06.2026 ◆ **Accepted**: 24.09.2026 ◆ **Published**: 27.10.2026

ABSTRACT

Aims: This study aimed to examine problematic internet use, as assessed by the Young's Internet Addiction Test-Short Form (YIAT-SF), and its associations with sociodemographic and clinical characteristics among adolescents presenting for the first time to a child and adolescent psychiatry outpatient clinic for various reasons.

Methods: This descriptive cross-sectional study included 156 adolescents aged 12-17 years who presented for the first time to the child and adolescent psychiatry outpatient clinic of a training and research hospital in Kırşehir, Turkiye, between November 2018 and May 2019. Participants were recruited using purposive sampling. Psychiatric diagnoses were established by a psychiatrist following clinical psychiatric assessment, based on DSM-5 diagnostic criteria. Data were collected using a Descriptive Information Form and the YIAT-SF. YIAT-SF scores were compared using the Mann-Whitney U test and Kruskal-Walli's test, with Bonferroni post hoc tests for significant Kruskal-Wallis results.

Results: The mean YIAT-SF score was 29.6±9.9 (median=28.0, IQR=22.0-37.0). Although excessive internet use was the presenting complaint in only 3.8% of adolescents, 62.2% reported difficulty controlling their internet use. YIAT-SF scores did not differ significantly according to gender, education level, economic status, place of residence, psychiatric diagnosis, person deciding to seek professional help, or activity (all $p>0.05$). Technology/internet/online gaming was reported by 34.0% of adolescents, smoking by 21.8%, alcohol use by 3.8%, and other substance/behavioural use by 11.5%. These addictive behaviours were based on self-report and did not represent clinically established addiction diagnoses.

Conclusion: YIAT-SF scores indicated varying levels of problematic internet use among adolescents presenting to child and adolescent psychiatry services for various psychiatric concerns, although excessive internet use was infrequently reported as the primary presenting complaint. The findings support the consideration of internet-use patterns as part of a comprehensive psychiatric assessment. However, given the cross-sectional design, single-center sample, self-reported addictive behaviours, and the fact that data were collected in 2018-2019, the findings should not be interpreted as a current estimate of clinically diagnosed internet addiction. Further studies using contemporary, multicenter, and longitudinal designs are warranted.

Keywords: Adolescent, internet addiction disorder, mental disorders, adolescent psychiatry

INTRODUCTION

Internet use has become an integral part of adolescents' daily lives, but problematic patterns of internet use may negatively affect their psychological and social well-being. Problematic internet use may involve difficulties in controlling internet use despite negative consequences and may be associated with psychological distress, social withdrawal, family conflict, and other emotional and behavioral difficulties (Cerniglia et al., 2017; Durkee et al., 2012; Wang et al., 2022; Young, 2009). Problematic internet use has also been associated with other risk behaviors, including substance use and behavioral difficulties, particularly among adolescents (Evren et al., 2014; Liu et al., 2019).

From a clinical perspective, problematic internet use shows considerable heterogeneity in symptom severity, clinical presentation, psychopathological comorbidities, and treatment needs (Saatçioğlu et al., 2023; So et al., 2019; Ye et al., 2023; Kuss & Lopez-Fernandez, 2016). Its complex etiology and the lack of universally accepted diagnostic and assessment approaches further complicate clinical management (Lozano-Blasco et al., 2022; Kuss et al., 2021; Musetti et al., 2016). Therefore, identifying factors associated with problematic internet use may contribute to its early recognition and appropriate assessment among adolescents presenting to healthcare settings.

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Most studies investigating problematic internet use among adolescents have been conducted in community- or school-based samples, whereas evidence from clinical populations remains comparatively limited (Pan et al., 2020; Hekim et al., 2019; Karaer & Akdemir, 2019). Existing clinical studies have predominantly focused on adolescents presenting with internet-related complaints, clinically identified internet-related problems, or treatment-seeking behaviors, while fewer studies have examined adolescents presenting to child and adolescent psychiatry services for various reasons (Kuss & Lopez-Fernandez, 2016; Hekim et al., 2019; Karaer & Akdemir, 2019). This gap is particularly relevant in Turkiye, where evidence regarding problematic internet use and related technology-use problems among adolescents attending psychiatric services remains limited (Fırat et al., 2018; Hekim et al., 2019; Karaer & Akdemir, 2019).

Therefore, this study aimed to examine problematic internet use, as assessed by the Young's Internet Addiction Test-Short Form (YIAT-SF), and its associated sociodemographic and clinical characteristics among adolescents presenting to a child and adolescent psychiatry outpatient clinic for various reasons. By focusing on a general clinical sample rather than adolescents specifically seeking help for internet-related problems, this study may provide clinically relevant evidence regarding the recognition and assessment of problematic internet use in routine child and adolescent psychiatric practice.

Research questions:

- What is the level of problematic internet use among adolescents presenting to a child and adolescent psychiatry outpatient clinic?
- Do YIAT-SF scores differ according to sociodemographic and clinical characteristics among these adolescents?

METHODS

Ethics

This study was conducted with the approval of the Ethics Committee of Nevşehir Hacı Bektaş Veli University (Date: 27.09.2018, Decision No: 11). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. Prior to the interview, the adolescents participating in the study and their families were informed about the purpose of the study, the benefits to be derived from it, and the time they would spend on the interview, and their consent was obtained. Written informed consent was obtained from both the adolescents and their parents or legal guardians. All consent procedures were conducted in accordance with the ethics committee's approval.

Design and Setting

This cross-sectional study was conducted in the child psychiatry outpatient clinic of a training and research hospital in Kırşehir province, located in the Central Anatolia Region of Turkiye. This was the only child and adolescent psychiatry clinic in the city.

Sampling Frame and Sample

The clinic sampling frame consisted of 300 adolescents aged 12-17 years who presented to the child and adolescent psychiatry outpatient clinic for various reasons during the study period (2018 November- 2019 May). The required sample size was calculated using a finite population sample size calculation for a known sampling frame, with a 95% confidence level and a 5% margin of error. Based on these parameters, the minimum required sample size was determined to be 168 participants.

Eligible participants were recruited using purposive sampling. The final sample size was below the calculated minimum of 168 participants due to the exclusion of 10 adolescents involved in preliminary testing and two adolescents with incomplete or incorrectly completed questionnaires. Thus, the final analytical sample consisted of 156 adolescents, all of whom were included in the statistical analyses.

Inclusion criteria: Adolescents aged 12-17 years who were presenting to the child and adolescent psychiatry outpatient clinic for the first time were included in the study.

Exclusion criteria: Adolescents with a known psychiatric diagnosis, intellectual disability, neurological or metabolic disorder, or other medical condition that could interfere with the study assessment were excluded.

Psychiatric Diagnostic Assessment

Psychiatric diagnostic assessments were conducted by the second researcher, who was a psychiatrist. No structured or semi-structured diagnostic interview was used. Following a clinical psychiatric examination, diagnoses were established according to the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Both adolescents and their parents were interviewed as part of the clinical assessment. Primary and comorbid diagnoses were determined based on the clinical evaluation and recorded accordingly. No diagnostic disagreements or uncertain cases occurred during the assessment process.

Data Collection Tools

Data were collected using the Descriptive Information Form and the YIAT-SF.

Descriptive Information Form: The Descriptive Information Form consisted of 24 questions developed by the researchers based on a review of the literature (Cerniglia et al., 2017; Hekim et al., 2019). The form assessed adolescents' sociodemographic characteristics (e.g., age, gender, education level, economic status, and place of residence), medical and psychiatric history, and internet-use characteristics. Internet-use characteristics included the duration of internet-related complaints, the person reporting excessive internet use (the adolescent, parents, both parents and the adolescent, or no complaints), whether excessive internet use was a presenting complaint (yes/no), and whether the adolescent reported difficulty controlling internet use (yes/no).

Regarding addictive behaviours, adolescents were asked, "Which of the following addictive behaviours do you engage in?" The response options included smoking, alcohol use, technology/internet/online gaming, other substance/behavioural use, and none. Participants could select more than one response. These responses were based on self-report and did not represent clinically established addiction diagnoses.

For variables with denominators lower than the total sample, the corresponding denominators reflect the applicability

of the question or the availability of a valid response. The reported symptoms item was applicable only to adolescents who reported symptoms at presentation (n=117). The leisure activity item was answered by 152 participants, as four adolescents declined to answer this question. No imputation was performed for the four missing responses.

The Young's Internet Addiction Test-Short Form (YIAT-SF): The YIAT-SF was originally developed by Young (1998) and shortened to a 12-item version by Pawlikowski et al. (2013). The Turkish validity and reliability study was conducted by Kutlu et al. (2016) in both university students and adolescents, including adolescents aged 14-17 years. The Turkish version consists of 12 items rated on a five-point Likert scale (1=never, 5=very often), with total scores ranging from 12 to 60. Higher scores indicate higher levels of problematic internet use as measured by the YIAT-SF. The Turkish validation study supported a one-factor structure and demonstrated acceptable validity and reliability among adolescents. In the present study, the questionnaire was administered in Turkish as a self-report measure, using the original response options and scoring procedure. The Cronbach's alpha coefficient was 0.86 in the Turkish adolescent validation study and 0.86 in the present study.

Statistical Analysis

Study data were analyzed using SPSS (Statistical Package for the Social Sciences) version 21.0(IBM Corp., Armonk, NY, USA). Descriptive characteristics were presented using number (n), percentage (%), mean±standard deviation, median, and 25th and 75th percentile values [M (25th-75th)]. The normality of the data was evaluated using the Kolmogorov-Smirnov test. The YIAT-SF total score was analysed as a continuous variable, and no categorical cut-off points were applied. Continuous variables were compared using the Mann-Whitney U test for two-group comparisons and the Kruskal-Wallis test for comparisons involving more than two groups. Significant Kruskal-Wallis results were further evaluated using the Bonferroni post hoc test.

Missing data were handled using available-case analysis; no imputation was performed. Variables with missing responses were analysed using the available observations, and the corresponding denominators were reported in the tables. Symptom-related data were based on the 117 adolescents who reported symptoms at presentation, whereas leisure activity data were available for 152 adolescents because four participants did not provide a response.

Reporting Guideline

This study was reported in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines (von Elm et al., 2007).

RESULTS

The mean age of the adolescents was 15.1±1.5 years, and 59.0% were female. Most participants (69.2%) were high school students. At least one psychiatric disorder was identified in all adolescents, while 26.9% had more than one psychiatric disorder. The most common diagnoses were major depressive disorder (MDD) (28.8%), attention-deficit/hyperactivity disorder (ADHD) (23.1%), and generalized anxiety disorder (16.0%) (Table 1).

Table 1. Descriptive characteristics of the adolescents (n=156)

Mean age		
Mean±SD	15.1±1.5	
Characteristics	**n**	**%**
Gender		
Female	92	59.0
Male	64	41.0
Education level		
Middle school	48	30.8
High school	108	69.2
Economic status		
Income<expenses	30	19.2
Income>expenses	104	66.7
Income=expenses	22	14.1
Place of residence		
Province	111	71.2
District	28	17.9
Village	17	10.9
Parents		
Alive	145	92.9
Divorced or not alive	11	7.1
Birth order		
First or only child	66	42.3
Second	48	30.8
Third	19	12.2
≥Fourth	23	14.7
Reported symptoms among adolescents reporting symptoms*/ (n=117)**		
Lack of attention/inability to focus	25	21.4
Aggressive/anger management problem	24	20.5
Depression, anhedonia, unhappiness	23	19.7
Stress/distress	10	8.5
Fear, anxiety, breathlessness, panic attack	17	14.5
Sleep disorders	7	6.0
Other (suicide, obsession, being asocial, lack of self-confidence, etc.)	17	14.5
Diagnosis		
MDD	45	28.8
ADHD	36	23.1
GAD	25	16.0
SAD	5	3.2
Other (panic disorder, PTSD, OCD)	3	1.9
Multiple	42	26.9
Self-reported addictive behaviours*		
Smoking	34	21.8
Alcohol	6	3.8
Technology, the internet, online games	53	34.0
Other substance/behavioural use	18	11.5
None	75	48.1
Activity (n:152)		
Yes	74	48.7
No	78	51.3

*Multiple responses were permitted; therefore, percentages do not sum to 100%. **This item was applicable only to participants who reported symptoms at presentation. SD: Standard deviation, MDD: Major depressive disorder, ADHD: Attention-deficit/hyperactivity disorder, GAD: Generalized anxiety disorder, SAD: Social anxiety disorder, PTSD: Post-traumatic stress disorder, OCD: Obsessive-compulsive disorder

Among the 117 adolescents who reported symptoms, the most frequently reported symptoms were lack of attention/inability to focus (21.4%), aggressive or anger-management problems (20.5%), and depression, anhedonia, or unhappiness (19.7%) (Table 1).

The mean YIAT-SF score was 29.6±9.9 (median=28.0, IQR=22.0–37.0; range=12–56). Excessive internet use was the presenting complaint in 3.8% of adolescents; however, 62.2% (97/156) reported having difficulty controlling their internet use. The mean duration of internet-related complaints was 631.4±714.8 days. Further internet-use characteristics are presented in Table 2.

Table 2. Distribution of adolescents according to selected characteristics related to problematic internet use (n=156)

Characteristics		
YIAT-SF score		
Mean±SD	29.6±9.9	
Median (IQR)	28.0 (22.0–37.0)	
Min–max	12–56	
Duration of internet-related complaints (days)		
Mean±SD	631.4±714.8	
	n	**%**
Person reporting excessive internet use		
The adolescent	17	10.9
Parents	50	32.1
Parents and the adolescent	47	30.1
No complaints	42	26.9
Presenting complaint of excessive internet use		
Yes	6	3.8
No	150	96.2
	n	**%**
Difficulty controlling internet use		
Yes	97	62.2
No	59	37.8

YIAT-SF: Young's Internet Addiction Test-Short Form, SD: Standard deviation, IQR: Interquartile range, Min: Minimum, Max: Maximum

Self-reported addictive behaviours were assessed using a multiple-response question; therefore, the percentages do not sum to 100%. Technology/internet/online gaming was reported by 34.0% of adolescents, smoking by 21.8%, alcohol use by 3.8%, and other substance/behavioural use by 11.5%, while 48.1% reported none of these behaviours (Table 1).

YIAT-SF scores did not differ significantly according to gender, education level, economic status, place of residence, psychiatric diagnosis, person deciding to seek professional help, or engagement in leisure activities (all p>0.05) (Table 3).

Table 3. Comparison of YIAT-SF scores according to selected sociodemographic and clinical characteristics (n=156)

Characteristics	Mean±SD; median (IQR)	Statistical analysis	p
Gender			
Female	29.0±9.40 28.0(22.0-36.25)	Z=-0.314	0.754
Male	30.0±10.53 28.5 (21.75-37.25)	Z=-0.314	0.754
Education level			
Middle school	29.8±9.97 28.00 (21.00-38.00)	Z=-0.010	0.992
High school	29.6±9.70 28.00 (22.00-37.00)	Z=-0.010	0.992
Economic status			
Income<expenses	29.4±9.45 28.00 (23.00-35.00)	H=1.216	0.544
Income>expenses	29.07±9.74 28.00 (21.00-37.00)	H=1.216	0.544
Income=expenses	32.0±11.20 34.00 (21.00-40.50)	H=1.216	0.544
Place of residence			
Province	30.09±9.86 29.00 (22.00-37.00)	H=4.239	0.120
District	25.96±9.67 26.00 (17.00-34.75)	H=4.239	0.120
Village	31.17±9.34 30.00 (24.00-38.50)	H=4.239	0.120
Diagnosis			
MDD	30.27±10.76 30.00 (20.25-37.00)	H=5.579	0.233
ADHD	28.26±8.32 27.00 (23.50-33.25)	H=5.579	0.233
GAD	27.84±9.92 27.00 (20.50-32.50)	H=5.579	0.233
SAD	24.14±5.75 24.00 (20.00-27.00)	H=5.579	0.233
Comorbid/other	31.63±10.58 31.00 (23.00-39.00)	H=5.579	0.233
Person deciding to see a professional			
The adolescent (31)	28.67±9.44 29.00 (21.00-36.00)	H=3.197	0.525
Mother (58)	30.56±10.6 27.5 (23.00-38.25)	H=3.197	0.525
Father (7)	24.28±9.14 17.00 (12.00-24.00)	H=3.197	0.525
Mother and father (19)	27.7±9.01 27.00 (19.00-35.00)	H=3.197	0.525
Other (41)	30.1±9.46 29.00 (23.50-37.50)	H=3.197	0.525
Activity			
Yes	28.90±9.75 27.00 (21.00-36.25)	Z=-0.778	0.436
No	29.92±10.20 29.00 (22.75-37.25)	Z=-0.778	0.436

(table continues)

YIAT-SF: Young's Internet Addiction Test-Short Form, SD: Standard deviation, IQR: Interquartile range, Z: Mann–Whitney U test statistic, H: Kruskal–Wallis's test statistic, MDD: Major depressive disorder, ADHD: Attention-deficit/hyperactivity disorder, GAD: Generalized anxiety disorder, SAD: Social anxiety disorder

DISCUSSION

In this study, which examined problematic internet use and related clinical characteristics among adolescents presenting to a child and adolescent psychiatry outpatient clinic, the mean YIAT-SF score was 29.6±9.9. Although excessive internet use was the presenting complaint in only 3.8% of adolescents, 62.2% reported difficulty controlling their internet use during the clinical assessment. These findings suggest that difficulties related to internet use may be present even when internet use is not the primary reason for seeking psychiatric care, highlighting the potential value of routinely assessing internet-use patterns during clinical evaluation.

Compared with the relatively small proportion of adolescents who presented directly because of excessive internet use, a considerably larger proportion reported difficulty controlling their internet use. In addition, internet-related complaints had persisted for a mean of approximately 21 months (631.4±714.8 days). Previous studies conducted in clinical adolescent samples in Turkiye have similarly indicated that problematic internet use may occur among adolescents presenting with different psychiatric complaints (Hekim et al., 2019; Karaer & Akdemir, 2019). However, direct comparisons of prevalence or severity across studies should be made cautiously because of differences in measurement instruments, operational definitions, and clinical populations.

The discrepancy between the primary presenting complaint and the internet-use difficulties identified during assessment is clinically noteworthy. Among adolescents who reported symptoms at presentation, commonly reported symptoms included attention and concentration difficulties, anger-management problems, depressive symptoms, anxiety, and sleep problems. This observation is consistent with previous clinical research from Turkiye showing that technology-related problems may occur alongside a range of psychiatric symptoms among adolescents presenting to psychiatric services (Fırat et al., 2018). These findings suggest that problematic internet use may sometimes represent an additional clinical concern rather than the primary presenting problem.

The presence of self-reported smoking, alcohol use, and other substance/behavioral use in a proportion of participants is also clinically noteworthy. Previous research has reported associations between problematic internet use and substance-related or other potentially addictive behaviors among adolescents and young people (Evren et al., 2014; Liu et al., 2019; Di Nicola et al., 2015; Lanthier-Labonté et al., 2020). In the present study, however, these behaviors were assessed using a researcher-developed self-report question and were not evaluated using validated instruments or diagnostic criteria. Therefore, the observed patterns should not be interpreted as evidence of comorbid addiction diagnoses.

The YIAT-SF scores did not differ significantly according to gender, education level, economic status, place of residence, psychiatric diagnosis, person deciding to seek professional help, or engagement in leisure activities. These findings suggest that, within this clinical sample, YIAT-SF scores were not significantly associated with the examined sociodemographic or clinical characteristics. Nevertheless, these analyses were based on unadjusted bivariate comparisons, and potential confounding factors were not controlled for. Therefore, the findings should be interpreted as exploratory associations rather than evidence of independent relationships.

Previous studies and meta-analyses have reported associations between problematic internet use and conditions such as ADHD and MDD (Wang et al., 2017; Ye et al., 2023). Longitudinal clinical research has also examined the relationship between problematic internet use and the course of depressive symptoms, although the directionality of this relationship remains complex (Zhou et al., 2023). In the present study, all adolescents had at least one psychiatric diagnosis, and 26.9% had multiple diagnoses. Although the differences in YIAT-SF scores across diagnostic groups were not statistically significant, adolescents with MDD and ADHD had relatively higher mean scores than some other diagnostic groups. These descriptive differences should be interpreted cautiously because the overall diagnostic-group comparison was not statistically significant and the analyses were not adjusted for potential confounders. Furthermore, given the cross-sectional design, the direction or temporal relationship between problematic internet use and psychopathology cannot be determined.

From a clinical perspective, the findings support the consideration of internet-use patterns as part of the broader psychiatric assessment of adolescents. Rather than assuming that problematic internet use is the primary clinical problem, clinicians may consider assessing the frequency and context of internet use, perceived loss of control, functional consequences, and its relationship with the adolescent's presenting symptoms. Such an approach may be particularly relevant for adolescents who do not spontaneously identify internet use as a concern. Previous research has similarly emphasized the complex relationship between problematic internet use and psychopathology and the importance of comprehensive clinical assessment (So et al., 2019; Ye et al., 2023; Kuss & Lopez-Fernandez, 2016).

Overall, the findings suggest that problematic internet use may be clinically relevant even when it is not the primary reason for presentation to child and adolescent psychiatry services. The relatively low proportion of adolescents reporting excessive internet use as a presenting complaint, compared with the substantially higher proportion reporting difficulty controlling their internet use, suggests that internet-related difficulties may not always emerge as the primary presenting concern during help-seeking. This finding underscores the potential usefulness of brief, standardized assessment of internet-use patterns as part of routine psychiatric evaluation, while recognizing that YIAT-SF scores alone do not establish a clinical diagnosis of internet addiction.

Limitations

This study has several limitations. First, its cross-sectional design precludes conclusions regarding temporal or causal relationships between problematic internet use and psychiatric characteristics. Second, the study was conducted in a single child and adolescent psychiatry outpatient clinic using purposive sampling, which limits the generalizability of the findings to other clinical and community populations. Third, internet-use characteristics and other addictive behaviors were assessed partly through self-report and may therefore have been subject to recall and social-desirability

bias. In addition, other addictive behaviors were assessed using researcher-developed self-report questions rather than validated instruments or clinical diagnostic criteria.

Fourth, the statistical analyses were primarily based on unadjusted bivariate comparisons. Therefore, potential confounding by age, gender, socioeconomic characteristics, psychiatric diagnosis, and other relevant factors could not be controlled for. The observed associations should consequently be interpreted as exploratory rather than as evidence of independent relationships. In addition, the final sample size (n=156) was slightly below the calculated minimum requirement (n=168), which may have reduced statistical precision and the ability to detect small associations. Fifth, although the YIAT-SF was used to assess problematic internet use, no categorical cut-off points were applied in the present study. Accordingly, the findings should not be interpreted as estimates of the prevalence of clinically diagnosed internet addiction.

Finally, the data were collected in 2018/2019. Given the rapid evolution of adolescents' internet use, social media practices, online gaming, and other digital behaviors, the findings may not fully represent current patterns of problematic internet use. Nevertheless, the study provides clinically relevant information from a child and adolescent psychiatry outpatient setting and highlights the potential value of considering internet-use difficulties during routine psychiatric assessment.

CONCLUSION

In this study, adolescents presenting to a child and adolescent psychiatry outpatient clinic had a mean YIAT-SF score of 29.6±9.9, reflecting the distribution of problematic internet-use scores within this clinical sample. Although excessive internet use was the presenting complaint in only a small proportion of adolescents, difficulty controlling internet use was reported by a substantially larger proportion during clinical assessment. YIAT-SF scores did not differ significantly according to the examined sociodemographic or clinical characteristics, including psychiatric diagnosis.

These findings suggest that problematic internet use may be present among adolescents presenting with a range of psychiatric concerns and may not always emerge as the primary presenting problem. Routine consideration of internet-use patterns, particularly perceived difficulty controlling use, may therefore be useful as part of a comprehensive psychiatric assessment. Standardized assessment tools may complement clinical questioning and facilitate the identification of internet-related difficulties that are not reported as the primary presenting concern.

Future research should include larger, multicenter, and contemporary samples to better reflect current patterns of adolescent internet use. Longitudinal studies are also needed to clarify the temporal relationships between problematic internet use and psychiatric symptoms and to identify factors that may contribute to the persistence or progression of problematic internet use.

ETHICAL DECLARATIONS

Ethics Committee Approval

This study was conducted with the approval of the Ethics Committee of Nevşehir Hacı Bektaş Veli University (Date: 27.09.2018, Decision No: 11).

Informed Consent

Informed consent was obtained from a parent or legal guardian. Where appropriate, age-adjusted assent was also obtained from the child. The inclusion of vulnerable populations in this study adhered to national and international ethical guidelines. Extra care was taken to ensure voluntary participation, understanding, and protection of participant dignity and autonomy.

Peer Review Process

This manuscript was subject to external peer review.

Conflict of Interest

The authors declare no conflicts of interest related to this study.

Financial Disclosure

The authors received no financial support for the conduct or publication of this research.

Author Contributions

Concept: ŞŞK, DA, ND; Design: ŞŞK, DA, ND; Control: ŞŞK, DA, ND; Resources: ŞŞK, DA; Materials: ŞŞK, DA, ND; Data Collection and/or Processing: ŞŞK, DA; Analysis and/or Interpretation: ŞŞK, DA, ND; Literature Review: ŞŞK, DA, ND; Article Writing: ŞŞK, DA, ND; Critical Review: All Authors.

Acknowledgments

We would like to thank the adolescents and their parents who participated in the study.

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