

# The effectiveness of a parent-based digital detox intervention to reduce cyber addiction in adolescents aged 12–17: A controlled quasi-experimental study

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## ABSTRACT

**Introduction.** Cyber addiction is the excessive and uncontrolled use of the Internet, computer games, social media, and digital devices in ways that negatively affect children's daily lives. With the rapid proliferation of digital technologies, cyber addiction has become a significant public health issue among adolescents and has contributed to psychological, social, and academic problems among them. This study investigated the effectiveness of a parent-based digital detox education program in reducing cyber addiction among adolescents aged 12–17 years by improving parental awareness and guidance on the subject.

**Population and methods.** Between June and December 2025, parents of adolescents aged 12–17 years living in a province in eastern Türkiye participated in this quasi-experimental study. The intervention group attended a four-week online parent education program, whereas the control group received no intervention. Data were collected before and after the intervention using the Introduction Form and the Family Child Internet Addiction Scale.

**Results.** A total of 81 parents were included; in the intervention group (n = 40), post-test scores for social isolation, dysfunction, withdrawal, loss of control, and total internet addiction decreased significantly compared with pre-test scores (p < 0.05). No significant pre- or post-test differences were observed in the control group. Baseline comparisons indicated that the groups were comparable before intervention.

**Conclusions.** A parent-based digital detox education program was associated with reduced cyber addiction in adolescents aged 12–17 years. However, because no significant post-test differences were found between the intervention and control groups, the findings should be interpreted with caution. Larger randomized controlled trials are required to confirm the effectiveness of this intervention.

**Keywords:** internet addiction disorder, prevention and control; parents; education.

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## INTRODUCTION

In today's digital world, technology makes every area of our lives easier and thus, has become indispensable. In recent years, Internet usage among children and young people has greatly increased. This has raised concerns about the risks of excessive Internet use and addiction.<sup>1</sup> The many ways technology can be used significantly affect how people utilize it in their daily lives. This presents new opportunities for children in terms of education, communication, and entertainment. However, uncontrolled and aimless use carries serious risks. The foremost risk is cyber addiction.<sup>2,3</sup> Cyber addiction is a condition in which an individual turns to the Internet, digital games, social media, and similar online platforms in an uncontrolled manner, which negatively affects their daily lives.<sup>4,5</sup> This addiction brings with it a number of problems associated with Internet use, such as excessive Internet use and social, behavioral, and emotional difficulties.<sup>6</sup> These negative outcomes include insomnia, anxiety, depression, low self-esteem, and impulsivity.<sup>7,8</sup>

The need for individuals to distance themselves from smart devices and the Internet has arisen to limit excessive internet use. This situation has created the need for a digital detox. Digital detox refers to a person disconnecting from devices or social media for a certain period.<sup>9</sup> Digital detox practices can help children restructure their technology-use habits and develop digital literacy.<sup>9,10</sup>

Although cyber addiction in children is an increasing public health issue, there are limited educational programs aimed at enhancing parents' knowledge and skills in recognizing digital risks, setting boundaries, serving as role models, and maintaining healthy digital habits. Current studies mostly focus on children's screen time or excessive Internet use; however, interventions that empower parents' roles in the digital ecosystem, support parent-child interaction, and integrate digital detox strategies into daily routines are insufficient. This study aims to take a holistic approach by developing an educational program for parents that covers digital awareness, boundary-setting skills, family communication, and digital detox practices.

## Research hypotheses

**H1:** The level of cyber addiction in adolescent children aged 12–17 of parents participating in the parent-based digital detox training program will

decrease more than in the control group.

**H2:** Adolescents in the intervention group are expected to show significant improvements in behavioral indicators associated with cyber addiction following the parent training program.

**H3:** A parent training program based on digital detox will contribute to the development of healthier digital technology usage habits in adolescents aged 12–17.

## POPULATION AND METHODS

### Type of research

This study used a quasi-experimental design with concurrent control groups.

### Population and sample

The study was conducted with parents residing in a province in Eastern Turkey between June and December 2025. The research sample was formed using convenience sampling among parents who met the predetermined inclusion and exclusion criteria and voluntarily agreed to participate in the study. Participants deemed eligible for the study were assigned to the intervention and control groups based on their willingness to participate in the intervention program and their availability during the study process. Participants were randomly assigned to groups without using a randomization method. Accordingly, this study was conducted using a non-randomized controlled quasi-experimental design.

The sample size was calculated using G\*Power 3.1.9.7 based on a significance level of 0.05, 95% power, and an effect size of 0.8 (Cohen's *d*), indicating a minimum of 35 participants per group. Considering a 20% attrition rate, the final sample comprised 81 parents of children aged 12–17 years.

### Inclusion criteria

- Being over 18 years of age.
- The child uses any smart device.
- No communication-related problems.
- No psychiatric diagnosis in the parent.
- Having a child aged 12–17.
- Residence in the province where the study was conducted.

### Exclusion criteria

Wishing to withdraw from the study voluntarily.

### Data collection tools

The "Introduction Form" and the "Family-Child

Internet Addiction Scale” were used. In addition, a “Parent Education Programme” was implemented for the intervention group.

### Introduction form

A form prepared by the researchers according to the literature was used. This form consists of introductory questions about the child and parents.<sup>3,8</sup>

### Family-child Internet Addiction Scale

The Family-Child Internet Addiction Scale was developed by Young<sup>11</sup> and adapted into Turkish by Eşgi.<sup>12</sup> It is a 20-item, four-factor Likert-type scale that evaluates social isolation, dysfunction, withdrawal, and difficulty in controlling one's life. Responses range from “Not Applicable” (0) to “Always” (5), with total scores ranging from 0 to 100. Scores of 80–100 indicate Internet addiction, 50–79 indicate limited symptoms, and 0–49 indicate the absence of symptoms. In the Turkish validity study, Cronbach's  $\alpha$  coefficients ranged between 0.85 and 0.94 for the subscales and were 0.91 for the overall scale. In this study, Cronbach's  $\alpha$  coefficients were 0.73 for social isolation, 0.83 for dysfunction, 0.83 for withdrawal, 0.82 for difficulty in control, and 0.96 for the overall scale.

### Parental education programme

A four-week training program was conducted at the university by an expert instructor. First week: children's use of technology, the role of technology in children's lives today, the definition of cyber addiction, and the causes of cyber addiction. In the second week, the symptoms of cyber addiction and its consequences for children were discussed in detail. In the third week, the definition of digital detox, digital detox strategies for children, family-based approaches, physical activities, art activities, reading books, playtime and social activities, parental control applications, and technological restrictions, such as daily screen time limits, were addressed. In the fourth week, topics such as school- and community-based measures to prevent cyber addiction, the dissemination of media literacy and family counseling services, and key elements in combating cyber addiction in children were discussed.

### Data collection

#### Pre-test data collection

Data were collected between June and July 2025. Written informed consent was obtained

from the parents who met the inclusion criteria and participated voluntarily in the study. Pre-test data were collected from parents on the first day using the “Information Form” and the “Family-Child Internet Addiction Scale.”

### Post-test data collection

In the fourth week of training, only the “Family-Child Internet Addiction Scale” was administered as the final test for both the intervention and control groups.

### Intervention

#### Intervention and control group

Before the intervention, the researcher developed a four-week cyber addiction and digital detox education programme. Baseline (pre-test) data were collected from both the intervention and control groups at the study's beginning. Participants in the intervention group then attended online training sessions conducted once a week for four consecutive weeks, with each session lasting approximately 45 min. Training was delivered using PowerPoint presentations, and educational materials were provided to parents in PDF format. No educational program or other interventions were provided to the control group during the study period. Post-test data were collected from both groups four weeks after the baseline assessment, following the completion of the intervention in the intervention group.

### Data evaluation

Data were analyzed using SPSS version 27. Sociodemographic characteristics were summarized as frequencies and percentages and compared using the chi-square test. Continuous variables are presented as mean  $\pm$  standard deviation. Normality was assessed using skewness and kurtosis ( $\pm 1.5$ ), which indicated a normal distribution. Paired and independent samples *t*-tests were used for within- and between-group comparisons, respectively. Effect sizes were calculated using Cohen's *d*. The Wilcoxon signed-rank test was used to assess changes between paired measurements.

### Ethical principles

Before starting the research, ethical approval was obtained from the Muş Alparslan University Non-Interventional Clinical Research Ethics Committee (03.06.2025-197091). Written informed consent was obtained from the individuals included in the study. The study

procedures were conducted in accordance with the Declaration of Helsinki.

## RESULTS

A total of 81 parents were included in the intervention group ( $n = 40$ ), 57.5% of the parents were fathers, 37.5% were in the 31-35 age range, 37.5% were university graduates, and 60% were employed. Additionally, 60% of the parents had a child aged 11-14 years, 52.5% were male, and 82.5% stated that their children used their parents' devices instead of their own. Furthermore, 55% of the parents reported that their children used smart devices for 1-3 h per day, 72.5% stated that there were rules regarding digital device use at home, and 77.5% reported not having received any training about digital device use (*Table 1*).

Of the parents in the control group ( $n = 41$ ), 65.9% were mothers, 41.5% were aged 31-35, 36.5% were university graduates, and 51.2% were not working. Of the parents, 75.6% had children aged 11-14, 65.9% were male, and 73.2% stated that their children used their parents' devices rather than their own. Of the parents, 51.2% reported that their children used smart devices for 0-1 hours per day, 82.9% stated that there were rules regarding digital device use at home, and 75.6% reported not having received training on digital device use (*Table 1*).

Chi-square analysis showed that the intervention and control groups differed in "parental status" and "child's daily smart device usage time," but not in the other variables (*Table 1*).

**TABLE 1. Distribution and comparison of descriptive characteristics of parents in the intervention and control groups ( $n = 81$ )**

| Variables                                                   |                    | Groups                |      |                  |      | Test value and significance       |
|-------------------------------------------------------------|--------------------|-----------------------|------|------------------|------|-----------------------------------|
|                                                             |                    | Intervention (n = 40) |      | Control (n = 41) |      |                                   |
|                                                             |                    | n                     | %    | n                | %    |                                   |
| Parent                                                      | Mother             | 17                    | 42.5 | 27               | 65.9 | $\chi^2 = 4.450$<br>$p = 0.035^a$ |
|                                                             | Father             | 23                    | 57.5 | 14               | 34.1 |                                   |
| Age                                                         | 31-35              | 15                    | 37.5 | 17               | 41.5 | $\chi^2 = 0.319$<br>$p = 0.852^a$ |
|                                                             | 36–40              | 13                    | 32.5 | 11               | 26.8 |                                   |
|                                                             | 41 and above       | 12                    | 30.0 | 13               | 31.7 |                                   |
| Educational status                                          | Primary            | 3                     | 7.5  | 7                | 17.1 | $\chi^2 = 3.633$<br>$p = 0.480^b$ |
|                                                             | Secondary school   | 7                     | 17.5 | 10               | 24.4 |                                   |
|                                                             | University         | 15                    | 37.5 | 15               | 36.5 |                                   |
|                                                             | Postgraduate       | 15                    | 37.5 | 9                | 22.0 |                                   |
| Occupation                                                  | Employed           | 24                    | 60.0 | 20               | 48.8 | $\chi^2 = 3.317$<br>$p = 0.383^b$ |
|                                                             | Not working        | 3                     | 7.5  | 4                | 9.8  |                                   |
|                                                             | Housewife          | 16                    | 40.0 | 21               | 51.2 |                                   |
| Child's age                                                 | 11-14              | 24                    | 60.0 | 31               | 75.6 | $\chi^2 = 2.264$<br>$p = 0.132^b$ |
|                                                             | 15-17              | 16                    | 40.0 | 6                | 24.4 |                                   |
| Child's gender                                              | Girl               | 19                    | 47.5 | 14               | 34.1 | $\chi^2 = 1.495$<br>$p = 0.221^a$ |
|                                                             | Male               | 21                    | 52.5 | 27               | 65.9 |                                   |
| Child's smart device ownership                              | Yes                | 7                     | 17.5 | 11               | 26.8 | $\chi^2 = 1.020$<br>$p = 0.313^a$ |
|                                                             | Using the parents' | 33                    | 82.5 | 30               | 73.2 |                                   |
| Child's daily smart device usage time                       | 0-1 hour           | 10                    | 25.0 | 21               | 51.2 | $\chi^2 = 5.955$<br>$p = 0.05^b$  |
|                                                             | 1-3 hours          | 22                    | 55.0 | 14               | 34.1 |                                   |
|                                                             | Over 3 hours       | 8                     | 20.0 | 6                | 14.7 |                                   |
| Existence of household rules regarding digital device usage | Yes                | 29                    | 72.5 | 34               | 82.9 | $\chi^2 = 1.274$<br>$p = 0.259^a$ |
|                                                             | No                 | 11                    | 27.5 | 7                | 17.1 |                                   |
| Status of receiving training on the use of digital devices  | Yes                | 9                     | 22.5 | 10               | 24.4 | $\chi^2 = 0.040$<br>$p = 0.841^a$ |
|                                                             | No                 | 31                    | 77.5 | 31               | 75.6 |                                   |

<sup>a</sup> Pearson chi-square test; <sup>b</sup> Fisher Freeman Halton exact test.

In the intervention group, “Social Isolation,” “Dysfunction,” “Deprivation,” “Difficulty in Control” factors, and “Family-Child Internet Addiction Scale” final test mean scores decreased significantly compared to the pre-test, and this difference was statistically significant ( $p < 0.05$ ). This finding indicates that the intervention applied to the intervention group was effective in reducing symptoms associated with cyber addiction. No statistically significant difference was found between the pre- and post-test mean scores of the control group for the factors “Social Isolation,” “Dysfunction,” “Deprivation,” “Difficulty in Control,” and the “Family-Child Internet Addiction Scale” ( $p > 0.05$ , *Table 2*).

In the intergroup comparisons, no statistically significant difference was found between the pre-test mean scores of the intervention and control groups in terms of the factors “Social Isolation,”

“Dysfunction,” “Deprivation,” “Difficulty in Control,” and the “Family-Child Internet Addiction Scale” score ( $p > 0.05$ ). No statistically significant difference was found between the final test score averages of the intervention and control groups for the factors “Social Isolation,” “Dysfunction,” “Deprivation,” “Difficulty in Control,” and the “Family-Child Internet Addiction Scale” score ( $p > 0.05$ ). However, while significant within-group improvements were observed in all sub-dimensions in the intervention group, no similar changes were detected in the control group. Although these findings indicate a positive trend associated with the parent training program, the absence of statistically significant differences between groups in the post-test limits the strength of the causal inferences. Therefore, the results should be interpreted with caution, and additional studies with larger samples and randomized

**TABLE 2. Comparison of intra-group and inter-group mean scores of parents in the intervention and control groups**

|                                                              |            | Group                               |                                     | Between-groups<br>test value and significance <sup>(x)</sup> |
|--------------------------------------------------------------|------------|-------------------------------------|-------------------------------------|--------------------------------------------------------------|
|                                                              |            | Intervention (n = 40)<br>X ± SD     | Control (n = 41)<br>X ± SD          |                                                              |
| Social isolation                                             | Pre-test   | 6.63 ± 4.04                         | 5.56 ± 4.38                         | t = 1.135 p = 0.260 d = 0.252                                |
|                                                              | Final test | 4.88 ± 4.06                         | 5.46 ± 4.66                         | t = -0.605 p = 0.547 d = 0.134                               |
| Intra-group<br>test value and<br>significance <sup>(y)</sup> |            | t = 3.080<br>p = 0.004<br>d = 0.487 | t = 0.159<br>p = 0.874<br>d = 0.025 |                                                              |
| Dysfunction                                                  | Pre-test   | 7.45 ± 4.28                         | 6.68 ± 4.66                         | t = 0.772 p = 0.443 d = 0.171                                |
|                                                              | Final test | 5.13 ± 3.83                         | 5.76 ± 4.90                         | t = -0.645 p = 0.521 d = 0.143                               |
| Intra-group test<br>value and<br>significance <sup>(y)</sup> |            | t = 3.499<br>p = 0.001<br>d = 0.553 | t = 1.813<br>p = 0.077<br>d = 0.283 |                                                              |
| Deprivation                                                  | Pre-test   | 6.15 ± 4.20                         | 5.78 ± 3.84                         | t = 0.413 p = 0.681 d = 0.092                                |
|                                                              | Final test | 4.28 ± 3.71                         | 4.93 ± 3.84                         | t = -0.777 p = 0.439 d = 0.173                               |
| Intra-group test<br>value and<br>significance <sup>(y)</sup> |            | t = 3.134<br>p = 0.003<br>d = 0.496 | t = 1.894<br>p = 0.065<br>d = 0.296 |                                                              |
| Control difficulty                                           | Pre-test   | 8.05 ± 5.33                         | 7.39 ± 5.85                         | t = 0.531 p = 0.597 d = 0.118                                |
|                                                              | Final test | 5.50 ± 5.29                         | 6.63 ± 5.67                         | t = -0.931 p = 0.355 d = 0.207                               |
| Intra-group test<br>value and<br>significance <sup>(y)</sup> |            | t = 3.419<br>p = 0.001<br>d = 0.541 | t = 1.030<br>p = 0.309<br>d = 0.161 |                                                              |
| Family-Child Internet<br>Addiction Scale                     | Pre-test   | 28.28 ± 16.61                       | 25.41 ± 17.50                       | t = 0.754 p = 0.453 d = 0.168                                |
|                                                              | Final test | 19.78 ± 16.16                       | 22.78 ± 18.04                       | t = -0.789 p = 0.442 d = 0.175                               |
| Intra-group test<br>value and<br>significance <sup>(y)</sup> |            | t = 3.591<br>p = 0.001<br>d = 0.568 | t = 1.302<br>p = 0.201<br>d = 0.203 |                                                              |

<sup>x</sup>: independent samples t-test, <sup>y</sup>: t-test for dependent groups, <sup>d</sup>: Cohen's d value.

designs are required to confirm the effectiveness of the intervention (*Table 2*).

In this study, the difference between pre- and post-test scores was examined using the Wilcoxon signed-rank test to determine the effect of the education program administered to parents on cyber addiction levels in their children. The education program had a significant effect on the "Social Withdrawal" factor in 65% of participants, 62.5% in the "Dysfunction" factor, 75% in the "Deprivation" factor, 70% in the "Difficulty in Control" factor, and 72.5% in the "Family-Child Internet Addiction Scale" scores. These results indicate that the parent education program led to a widespread and significant decrease in all factors related to cyber addiction ( $p < 0.01$ ; *Table 3*).

## DISCUSSION

This study examined the effect of a parent education program on children's cyber addiction. In the intervention group, significant improvements were observed in all factors from the pre- to post-test. However, as there was no statistically significant difference between the intervention and control groups in the post-test, these findings should be interpreted as indicating

potential benefits rather than definitive evidence of effectiveness. Improvements in social isolation, dysfunction, withdrawal, and difficulty in control were observed only in the intervention group, while there were no significant changes in the control group.

The literature emphasizes that training parents to limit their children's use of digital devices and strengthen parent-child communication is effective. These trainings can reduce children's levels of cyber addiction and help decrease the use of smart devices in a controlled manner.<sup>13-15</sup> Digital detox interventions, especially family-based interventions and activities, can create lasting changes in children's behavior regarding cyber addiction. The parent training program used in our study had a significant effect on cyber addiction.<sup>16,17</sup>

Digital detoxification is a new and rapidly developing concept. For individuals with cyber addiction, detoxification means abstaining from technology.<sup>18</sup> In this context, digital detoxification is not only an approach to limiting individual technology use, but can also support the regulation of children's Internet use through parental guidance and family-based interventions. Family-oriented and parental education programs

**TABLE 3. Effect of the parent education programme on internet addiction: pre-test and post-test comparison (n = 81)**

|                                              |                | N  | %    | Mean rank | Sum of ranks | Z* and p value                        |
|----------------------------------------------|----------------|----|------|-----------|--------------|---------------------------------------|
| <b>Social isolation</b>                      | Negative ranks | 26 | 65   | 18.50     | 481.00       | <b>z = -2.731</b><br><b>p = 0.006</b> |
|                                              | Positive ranks | 9  | 22.5 | 16.56     | 149.00       |                                       |
|                                              | Ties           | 5  | 12.5 |           |              |                                       |
|                                              | Total          | 40 | 100  |           |              |                                       |
| <b>Dysfunction</b>                           | Negative ranks | 25 | 62.5 | 18.60     | 465.00       | <b>z = -3.308</b><br><b>p = 0.001</b> |
|                                              | Positive ranks | 8  | 20   | 12.00     | 96.00        |                                       |
|                                              | Ties           | 7  | 17.5 |           |              |                                       |
|                                              | Total          | 40 | 100  |           |              |                                       |
| <b>Deprivation</b>                           | Negative ranks | 30 | 75   | 18.45     | 553.50       | <b>z = -3.060</b><br><b>p = 0.002</b> |
|                                              | Positive ranks | 7  | 17.5 | 21.36     | 149.50       |                                       |
|                                              | Ties           | 3  | 7.5  |           |              |                                       |
|                                              | Total          | 40 | 100  |           |              |                                       |
| <b>Difficulty in control</b>                 | Negative ranks | 28 | 70   | 18.38     | 514.50       | <b>z = -3.281</b><br><b>p = 0.001</b> |
|                                              | Positive ranks | 7  | 17.5 | 16.50     | 115.50       |                                       |
|                                              | Ties           | 5  | 12.5 |           |              |                                       |
|                                              | Total          | 40 | 100  |           |              |                                       |
| <b>Family-child internet addiction scale</b> | Negative ranks | 29 | 72.5 | 22.31     | 647.00       | <b>z = -3.588</b><br><b>p = 0.001</b> |
|                                              | Positive ranks | 10 | 25   | 13.30     | 133.00       |                                       |
|                                              | Ties           | 1  | 2.5  |           |              |                                       |
|                                              | Total          | 40 | 100  |           |              |                                       |

\* Wilcoxon signed-rank test.

have been reported to positively affect children's and parents' attitudes toward Internet use and their ability to control it. Yalçın and Duran<sup>19</sup> indicated that parents experience difficulties in controlling their children's Internet addiction. In our study, we concluded that digital detoxification as part of family-oriented interventions reduces indicators of Internet use and cyber addiction. Recent studies have reported that programs involving parents in interventions are associated with a decrease in negative symptoms related to Internet use. Some studies have specifically concluded that family-based therapies and parental education reduce Internet use and that these trainings are effective.<sup>17,18</sup>

Arıcı Doğan and Döğër<sup>3</sup> demonstrated significant relationships between the subdimensions of the Family Child Internet Addiction Scale—social isolation, dysfunction, and withdrawal—and children's duration of technological device use and Internet use rules. Increased Internet use can lead to negative outcomes for children and families. Yalçın and Duran<sup>19</sup> found that excessive Internet use negatively affects children's academic achievement and social relationships, while parental restrictions lead to negative reactions from children. In our study, the digital detox intervention significantly reduced the observed factors, indicating benefits in terms of behavioral control and social and emotional perceptions. This suggests that multilevel interventions combining rules/strategies with relational/emotional support may work synergistically. However, problematic Internet use can lead to physical, emotional, social, and functional impairments.<sup>19,20</sup>

Several studies support the findings of our research. These studies suggest that short-term group or online digital detox and cyber addiction training sessions for parents create awareness and improve perceptions among both children and parents. It has been concluded that parental training has positive effects on managing children's behavior and attitudes within the family.<sup>13,21</sup>

It has been concluded that family- or group-focused parent training programs reduce symptoms by improving communication, rule-setting, and monitoring methods among family members. Studies on these and similar training programs have yielded results that support our findings.<sup>13,18</sup> The strong and short-term effects of our study are promising; however, to assess the medium- and long-term effects, training

programs must be conducted over a longer period (3-12 months). In conclusion, our study results are supported by recent research indicating that parent-based digital detox education programs for families may be effective in reducing symptoms related to cyber addiction.<sup>22-24</sup>

## CONCLUSION

Together with the parent education program, our results showed that the practice changed habits and increased conscious control over the use of smart devices. Furthermore, a decrease in the time spent on smartphones indicates a reduction in the levels of cyber addiction. Future studies should conduct more comprehensive research with larger sample sizes and across different groups to evaluate digital detox methods. ■

## REFERENCES

1. Ayub S, Jain L, Parnia S, Bachu A, Farhan R, Kumar H, et al. Treatment modalities for Internet addiction in children and adolescents: A systematic review of randomized controlled trials (RCTs). *J Clin Med*. 2023;12(9):3345. doi:10.3390/jcm12093345.
2. Acuner E, Turan Y. [Digital detox tourism experience for digital addiction awareness]. *Gumushane Univ J Soc Sci*. 2024;15(2):312-31. Turkish.
3. Arıcı Doğan D, Döğër SS. [Examining the relationship between mothers' digital parenting attitudes and family-child internet addiction.]. *Int J Soc Sci Educ Res*. 2023;9(1):1-14. doi:10.24289/ijsser.1181453. Turkish.
4. Efe YS, Erdem E, Vural B. Cyberbullying and internet addiction high school students. *J Dependence*. 2021;22(4):465-473. doi:10.51982/bagimli.936930.
5. D'Angelo J, Moreno MA. Screening for problematic internet use. *Pediatrics*. 2020;145(Suppl 2):S181-5. doi:10.1542/peds.2019-2056F.
6. Anlı G. [Internet addiction: social and emotional loneliness]. *Int J Sci Res*. 2018;3(2):389-97. doi:10.217733/ibad.414862. Turkish.
7. Twenge JM. Increases in depression, self-harm, and suicide among US adolescents after 2012 and links to technology use: possible mechanisms. *Psychiatr Res Clin Pract*. 2020;2(1):19-25. doi:10.1176/appi.prcp.20190015.
8. Aslan N. [A study on internet addiction in adolescents: prevalence, causes, and consequences]. *Int J Soc Res*. 2019;12(65):945-57. doi:10.17719/ijssr.2019.3506. Turkish.
9. Kent S, Masterson C, Ali R, Parsons CE, Bewick BM. Digital Intervention for Problematic Smartphone Use. *Int J Environ Res Public Health*. 2021;18(24):13165. doi:10.3390/ijerph182413165.
10. Acar N. Dijital Detoks ve Uygulama Yöntemleri Üzerine Bir Literatür Taraması. *J Media Cult Stud*. 2025;7(2):84-99. doi:10.55055/mekcad.1750056.
11. Young KS. Internet Addiction: The emergence of a new clinical disorder. *Cyberpsychol Behav*. 1998;1(3):237-44. doi:10.1089/cpb.1998.1.237.
12. Eşçi N. The adaptation of the parent-child internet addiction scale into Turkish: The study of validity and reliability. *Kastamonu Educ J*. 2014;22(2):807-39.
13. Brandhorst I, Lahres P, Hanke S, Batra A, Renner T, Barth G, et al. Randomized controlled evaluation of group-based

- training for parents of adolescents with gaming or social network use disorder. *Int J Environ Res Public Health*. 2022;20(1):272. doi:10.3390/ijerph20010272.
14. Li X, Ding Y, Bai X, Liu L. Associations between parental mediation and adolescents' internet addiction: The role of parent-child relationship and adolescents' grades. *Front Psychol*. 2022;13:1061631. doi:10.3389/fpsyg.2022.1061631.
  15. Sela Y, Omer H, Mishali M, Amichai-Hamburger Y. The effectiveness of a novel parental training program in reducing problematic Internet use among adolescents. *J Fam Psychol*. 2025;39(2):144-59. doi:10.1037/fam0001285.
  16. Ding K, Li H. Digital addiction interventions for children and adolescents: A scoping review. *Int J Environ Res Public Health*. 2023;20(6):4777. doi:10.3390/ijerph20064777.
  17. Wang H, Li X, Lok GK, Meng C, Tan Y, Lee UM, et al. Family based therapy for Internet addiction among adolescents and young adults: A meta-analysis. *J Behav Addict*. 2024;13(2):295-312. doi:10.1556/2006.2024.00015.
  18. Schraggeová M, Bisaha D. The effect of digital detox through digital minimalism using the MinimalistPhone app on the behavior of young users and their emotional experience. *Comput Hum Behav Rep*. 2025;18:100699. doi:10.1016/j.chbr.2025.100699.
  19. Yalçın H, Duran Z. [Children's use of communication devices and the internet, and family-child internet addiction levels]. *Electron Turk Studisi*. 2017;12:219-36. doi:10.7827/TurkishStudies.12052. Turkish.
  20. Chen J, Li S, Nie Y. Parent-adolescent conflict and problematic Internet use among Chinese adolescents: The mediating role of depression and the moderating role of school climate. *BMC Psychol*. 2024;12(1):285. doi:10.1186/s40359-024-01781-y.
  21. Stormshak E, Connell A, Mauricio AM, McLaughlin M, Caruthers A. Digital health delivery of parenting skills to improve conduct problems in middle school youth across two distinct randomised trials. *Prev Sci*. 2025;26(4):582-91. doi:10.1007/s11121-024-01750-2.
  22. Werner M, Kapetanovic S, Claesdotter-Knutsson E. Family-centred treatment program for problematic gaming and excessive screen use in a clinical child and youth population (FAME): Protocol for a feasibility pilot mixed-method study. *JMIR Res Protoc*. 2024;13:e56387. doi:10.2196/56387.
  23. Danesh F, Mohammadi M, Naziri G, Fath N. Investigating the effectiveness of modifying the parent-child interaction pattern based on filial play therapy on internet addiction, sleep quality, and self-efficacy in 9-12-year-old children. *Addict Health*. 2023;15(4):281-8. doi:10.34172/ahj.2023.1398.
  24. Theophilus Y, AlMahmud A, Davis H, Octavia JR. Preventive interventions for Internet addiction in young children: A systematic review. *JMIR Ment Health*. 2024;11:e56896. doi:10.2196/56896.