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Cyberbullying, Problematic Internet Use, and Emotional Regulation Difficulties in Children and Adolescents

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Abstract

This study aims to reveal the extent of the negative effects of technology use in children and adolescents, such as cyberbullying, problematic internet use, and difficulties with emotional regulation. It also seeks to determine whether these issues show significant differences based on gender and to test whether emotional regulation difficulties and problematic internet use significantly predict cyberbullying behaviors. The research was designed using a quantitative relational survey model. The study's sample consists of a total of 325 students attending middle and high schools in Mersin and Ankara. The Difficulties in Emotion Regulation Scale – Short Form (DERS-16), Cyberbullying Scale, and Problematic Internet Use Scale – Adolescent Form (PIUS-A) were used as data collection tools. In addition to descriptive statistical analyses, independent samples t-tests and multiple regression analysis were used to test the relationships between variables. The research findings show that emotional regulation difficulties and problematic internet use significantly predict cyberbullying behaviors in children and adolescents. Accordingly, interdisciplinary studies with larger samples, longitudinal designs, and multiple data collection methods are recommended.

Introduction

The rapid development of digital technologies and the internet's integration into daily life have profoundly impacted the social, academic, and psychological development of children and adolescents. The intensive interaction between young generations and the internet and social media presents both opportunities and risks (Anderson et al., 2017; Baldwin & Nasirci, 2024). While the internet offers easy access to information, expanded learning opportunities, and increased social connections, it can also lead to negative outcomes such as excessive use, addictive tendencies, sleep disorders, and social isolation (Aponte-Rueda et al., 2017; Cunningham et al., 2021; Soriano-Molina et al., 2025). In this context, phenomena like problematic internet use and cyberbullying have become significant risk factors, especially for children and adolescents in a vulnerable developmental period (Li et al., 2023).

Recent studies show that it's crucial to consider not just the quantitative but also the qualitative aspects of internet use—how, why, and how intensely individuals use it (Benzi et al., 2023; Gioia et al., 2021; Keser Ateş et al., 2025). Emotional fluctuations, impulse control issues, and peer relationship sensitivities during adolescence

particularly increase vulnerability to digital risks (De Neve et al., 2023; Kabakcı & Traş, 2024; Yang et al., 2022; Zhu et al., 2021). Additionally, experiences of bullying and social exclusion in digital environments have been shown to cause depression, anxiety, and suicidal tendencies in individuals with low psychological resilience (Nagata et al., 2025; Peprah et al., 2023; Sarıtaş et al., 2024).

This research aims to identify the dimensions of the negative effects of technology use in children and adolescents, such as cyberbullying, problematic internet use, and emotion regulation difficulties. It also seeks to determine if these issues differ significantly by gender and to test whether emotion regulation difficulties and problematic internet use significantly predict cyberbullying behaviors.

Problem Statement

The intense emotional fluctuations and underdeveloped cognitive control mechanisms during adolescence make individuals more vulnerable to digital risks (Gioia et al., 2021). Therefore, it is highly important to determine the relationship between children's and adolescents' internet use habits and their emotional regulation skills in today's digital age. At this point, problematic internet use should be considered not only as an individual habit but also in conjunction with emotional regulation difficulties (Horwood & Anglim, 2021; Quaglieri et al., 2021). Research shows that adolescents who use the internet excessively and dysfunctionally experience significant problems with emotional regulation, which negatively impacts both academic success and social relationships (Benzi et al., 2023). When combined with negative behaviors like cyberbullying, serious psychological risks arise for both victims and perpetrators (Zhu et al., 2021).

Problematic internet use not only leads to consequences like academic failure and social isolation but also increases the risk of engaging in aggression and bullying behaviors in online environments (Camerini et al., 2020; Zhu et al., 2021). Similarly, children and adolescents with emotion regulation difficulties tend to use the internet as a means of escape or relief because they cannot manage their negative emotions in a healthy way. This tendency is reported to fuel problematic use and cyberbullying behaviors (Fu et al., 2020; Horwood & Anglim, 2021). Although many international studies have addressed the relationships between problematic internet use and emotional regulation difficulties (Camerini et al., 2020; Gioia et al., 2021; Günaydın et al., 2022; Miu et al., 2022; Mo et al., 2018; Rozgonjuk & Elhai, 2021; Soriano-Molina et al., 2025), there are limited findings on how these relationships intersect with cyberbullying behaviors (Li et al., 2024; Nagata et al., 2025). The literature shows that these three concepts are often examined separately in adolescence (Anderson et al., 2017; Gioia et al., 2021), but studies that holistically examine their mutual relationships are limited.

The scarcity of research, especially among Turkish adolescents, makes this study valuable from both a theoretical and practical perspective (Günaydın et al., 2022; Ercengiz & Şar, 2017). The inclusion of both middle and high school students in the sample also allows for a comparison of risks at different stages of adolescence (Al Saidi et al., 2025; Pettorruso et al., 2020). The findings are expected to contribute to the development of concrete recommendations for school counseling, family guidance, and national-level education policies.

Theoretical Framework

Cyberbullying and Its Effects on Children and Adolescents

Cyberbullying is defined as the repeated and persistent use of information and communication technologies to intentionally harm, humiliate, or exclude an individual (Zhu et al., 2022). While this phenomenon shares traditional bullying criteria like intentionality, repetition, and a perceived power imbalance, it has distinct characteristics due to the specific qualities of online environments, such as anonymity, permanence, and speed (Elgar et al., 2014). The ability of messages to spread instantly to a wide audience, the unauthorized circulation of visual materials, and the permanence of content online can all intensify the victim's experience (Camerini et al., 2020; Levkov & Kitanovikj, 2024). The rapid exchange of roles-bully, victim, and bystander-on online platforms, combined with the fluid social identity exploration of adolescence, complicates the role components (Schulz et al., 2025).

Cyberbullying occurs through a wide range of behaviors, including mockery, insults, threats, doxing, exclusion, spreading rumors, identity impersonation, and unauthorized photo sharing (Zhu et al., 2022). The variety of platforms extends these behaviors to messaging apps, online games, social networks, and forums, making monitoring and intervention difficult (Li et al., 2023). The perception of online anonymity, a low probability of being caught, and the rapid formation of group norms can create an environment that encourages bullying behaviors (Camerini et al., 2020). When parental or teacher mediation is absent, the invisibility of online environments can produce a "safe space" illusion for adolescents, reinforcing harmful behaviors (Wright, 2024).

The textual, visual, and multimedia nature of digital interactions can increase the emotional intensity and witnessing dimension of victimization, making "public shaming" experiences more common (Elgar et al., 2014). Adolescents' self-regulation and need for peer approval can be reinforced by online social capital processes, influencing the sustainability of the behavior (Schulz et al., 2025). In this context, cyberbullying is conceptualized as more than an online reflection of traditional bullying; it's an autonomous phenomenon empowered by the speed, permanence, and anonymity of the digital ecosystem (Na'imah et al., 2024; Zhu et al., 2022).

Cyberbullying has multidimensional negative consequences on the mental health, academic adjustment, and social functioning of children and adolescents (Camerini et al., 2020; Tosun & Akcay, 2022). Victimization experiences are closely linked to depression, anxiety, loneliness, low self-esteem, and somatic complaints (Elgar et al., 2014). There is increasing evidence that exposure during early adolescence is associated with internalized symptoms and risky coping patterns in later years (Predescu et al., 2024). Severe risk indicators such as self-harm behaviors, suicidal thoughts, and suicide attempts related to cyberbullying have been reported in various samples (Nagata et al., 2025; Peprah et al., 2023). In a school context, cyberbullying is linked to a decline in academic performance, absenteeism, and reduced trust in the school climate (Al Saidi et al., 2025). The deterioration of peer relationships, social withdrawal, and weakening of peer support can cause lasting fissures in adolescents' psychosocial adjustment (Olenik Shemesh et al., 2023). Impaired sleep quality and increased daytime sleepiness can disrupt emotional regulation and attention processes, creating a cyclical pattern of vulnerability (Guerrini Usubini et al., 2022; Mérida-López et al., 2025).

Problematic Internet Use

Problematic internet use is defined as an individual's dysfunctional, uncontrolled, and excessive use of the internet, which negatively affects their social, academic, and psychological functioning in daily life (Anderson et al., 2017; Gioia et al., 2021). This concept encompasses not only the duration of internet use but also its quality, motivations, and the consequences reflected in the individual's life (Benzi et al., 2023; Niraula & Bohora, 2023). In the literature, problematic internet use is often discussed alongside concepts like internet addiction, compulsive internet use, or pathological internet use, but most researchers also include use patterns that disrupt functioning without reaching the level of addiction (Aponte-Rueda et al., 2017; Soriano-Molina et al., 2025; Yilmaz et al., 2023).

Within the conceptual framework, dimensions of problematic internet use such as "excessive use," "negative consequences," and "seeking social benefits" stand out (Ceyhan et al., 2007). Excessive use is defined as spending time on the internet to a degree that disrupts daily responsibilities, while the negative consequences dimension includes harm to health, sleep, and academic performance (Günaydın et al., 2022; Pettorruso et al., 2020). The dimension of seeking social benefits refers to an individual's intense use of the internet to maintain social relationships, gain acceptance, and relieve loneliness (Olenik Shemesh et al., 2023). With the spread of technology, problematic use has also diversified, not only on desktop computers but also on smartphones, tablets, and social media platforms (Rozgonjuk & Elhai, 2021; Silva et al., 2022). It is also emphasized that problematic internet use should be viewed on a continuum, meaning there are different levels of problematic use between normal use and addiction (Gioia et al., 2021).

Problematic internet use leads to negative consequences in many areas of an individual's life. Academically, it makes it difficult for students to focus in class, reduces time spent on extracurricular activities, and increases the risk of academic failure (Anderson et al., 2017; Ceyhan et al., 2007). In adolescents, spending excessive time on online games or social media platforms has been found to negatively affect exam performance and school attendance (Rugancı & Gençöz, 2010). Socially, problematic internet use leads to a weakening of face-to-face relationships, increased social isolation, and a rise in conflicts in peer relationships (Olenik Shemesh et al., 2023). Because individuals often feel more comfortable expressing themselves in online environments, a decrease in communication skills is observed in offline relationships (Benzi et al., 2023). Furthermore, social media addiction, which is the most common indicator of problematic internet use, increases social stress factors in adolescents, such as loneliness, fear of rejection, and peer pressure (Camerini et al., 2020).

From a psychological perspective, problematic internet use has been associated with depression, anxiety, low self-esteem, and sleep problems (Gioia et al., 2021; Horwood & Anglim, 2021; Soriano-Molina et al., 2025). It is particularly observed that adolescents with emotional regulation difficulties use the internet intensely to suppress or avoid negative emotions (Fu et al., 2020). While this provides short-term relief, it increases addictive tendencies in the long run, leading to the chronicity of psychological problems (Mo et al., 2018). Problematic internet use has also been reported to be linked to risky behaviors, such as substance use or reckless driving (Nagata et al., 2025). These results show that problematic internet use is not just a habit or a tool for entertainment but also a

risk factor that directly affects individuals' multidimensional quality of life (Gioia et al., 2021; Pettorruso et al., 2020).

Gender differences are also important in terms of risk groups; some studies show that boys are more prone to addiction to online games, while girls tend to be more addicted to social media (Pettorruso et al., 2020). Psychological vulnerability factors include low self-esteem, high anxiety levels, a history of trauma, and difficulties with emotional regulation (Horwood & Anglim, 2021; Gioia et al., 2021). Such individuals are more likely to develop problematic internet use because the internet becomes a tool for them to cope with stress or avoid negative emotions (Fu et al., 2020). Furthermore, adolescents who have been exposed to traditional peer bullying have been found to develop problematic use behaviors by taking refuge in online environments (Li et al., 2023; Predescu et al., 2024, Xu et al., 2024).

Difficulties with Emotional Regulation

Difficulties with emotional regulation refer to the systematic breakdowns an individual experiences in the processes of identifying, understanding, accepting, redirecting emotions toward appropriate goals, maintaining impulse control, and using effective strategies (Burton et al., 2022). These difficulties negatively impact daily functioning through a weakening of control over the intensity, duration, and contextual appropriateness of emotional responses (Sörman et al., 2022).

Adolescence represents a developmental stage where emotional intensity increases, social comparison becomes more frequent, and self-regulation systems are still maturing (De Neve et al., 2023). The emotional fluctuations observed during this period increase vulnerability in terms of selecting and maintaining regulation strategies (Miu et al., 2022; Mossini, 2024). Impaired sleep quality and increased daytime sleepiness can increase negative affect, leading to secondary breakdowns in regulation skills (Guerrini Usubini et al., 2022). The high reactivity and reward sensitivity seen in adolescence, when combined with the need for peer approval, can increase challenges with impulsivity (De Neve et al., 2023). In online environments, where adolescents' peer interactions are intensified, regulation difficulties facilitate reactive communication and thoughtless sharing (Miu et al., 2022).

The relevant literature consistently shows a relationship between emotional regulation difficulties and digital risk behaviors (Fu et al., 2020; Gioia et al., 2021; Yang et al., 2022). The preference for strategies like suppression over reappraisal in adolescents can increase reactive participation and risky sharing in online environments (Rozgonjuk & Elhai, 2021). Emotional regulation difficulties fuel the tendency to use the internet as a tool for avoidance or relief in the face of negative affect, which increases the risk of problematic internet use (Mo et al., 2018). Structural equation and mediation models show that depressive symptoms and perceived social support can play mediating and moderating roles in these relationships (Fu et al., 2020). It can be said that the relationship between emotional regulation difficulties and problematic technology use becomes particularly pronounced in adolescence (Anderson et al., 2017). Low social connectedness and a lack of cognitive reappraisal increase vulnerability to negative online interactions (Xu et al., 2024). This vulnerability can facilitate reactive participation in behaviors like aggression, mockery, and exclusion in online environments, thereby fueling

cyberbullying cycles (Camerini et al., 2020; Zhu et al., 2021). The findings indicate that reinforcing psychological flexibility and social support resources can offer a protective framework against risky behavior patterns in the digital context (Xu et al., 2024; Yiğit & Güzey-Yiğit, 2017). In this context, emotional regulation difficulties form an explanatory axis that intersects with problematic internet use and cyberbullying, making them a focal point for multilevel prevention and intervention strategies (Gioia et al., 2021).

The relationships among cyberbullying, problematic internet use, and emotional regulation difficulties in children and adolescents have become more visible with recent research. The relationship between problematic internet use and emotional regulation difficulties, in particular, is seen as an important mechanism that mediates the transformation of adolescents' emotional vulnerabilities into risky behaviors in online environments (Yang et al., 2022). Structural equation models show that adolescents with poor emotional regulation skills use the internet more to suppress or avoid negative emotions, and this leads to addiction-like behavior patterns (Fu et al., 2020; Mo et al., 2018). Similarly, the relationships between problematic internet use and cyberbullying reveal that adolescents who use the internet intensely and without control experience more conflict in social interactions and engage in aggressive online behaviors (Li et al., 2023; Zhu et al., 2021). Furthermore, the effects of problematic internet use are observed not only in the role of the perpetrator but also in the context of victimization, as adolescents who spend excessive time in online environments are more likely to be exposed to cyberbullying (Predescu et al., 2024).

Emotional regulation difficulties stand out as a critical explanatory variable in these relationships, representing the psychological vulnerabilities underlying both problematic internet use and cyberbullying (Guerrini Usubini et al., 2022; Horwood & Anglim, 2021). Meta-analytic findings show that these three variables form a mutually reinforcing cycle, where emotional regulation difficulties increase the risk of problematic use, which in turn triggers participation in or exposure to cyberbullying (Miu et al., 2022; Soriano-Molina et al., 2025; Yang et al., 2022).

This study examines the relationship among cyberbullying, problematic internet use, and emotional regulation difficulties in children and adolescents. In this context, the sub-questions of the research are structured as follows:

- 1- What is the level of emotional regulation difficulties in children and adolescents?
- 2- What is the level of problematic internet use in children and adolescents?
- 3- What is the level of cyberbullying behaviors in children and adolescents?
- 4- Do the levels of emotional regulation difficulties, problematic internet use, and cyberbullying behaviors in children and adolescents differ significantly by gender?
- 5- Do the variables of emotional regulation difficulties and problematic internet use significantly predict cyberbullying behaviors?

Method

Research Model

This study was designed using a quantitative relational survey model. The relational survey model aims to uncover

the relationship between two or more variables and explain the degree to which they change together (Creswell, 2017). The study examines the relationships among children's and adolescents' difficulties with emotion regulation, problematic internet use, and cyberbullying behaviors. It also tests whether these variables differ based on gender and whether emotional regulation difficulties and problematic internet use predict cyberbullying behaviors. In this respect, the research allows for both descriptive and predictive analyses (Büyüköztürk et al., 2022).

Population and Sample

The study's population consists of middle and high school students attending schools in the cities of Mersin and Ankara, Turkey. The sampling method used was convenience sampling. Convenience sampling is a non-probability sampling technique that allows the researcher to include easily accessible and willing individuals in the sample group (Etikan, 2016). Accordingly, the study's sample consists of a total of 325 children and adolescents attending middle and high schools in Mersin and Ankara. The sample is in the 13-16 age group, with a mean age of 14.1 (SD=1.12). In determining the sample, criteria for age group diversity and accessibility were considered to align with the study's aims. This sample size is considered to provide sufficient statistical power for relational analyses (Cohen, 1992).

Data Collection Instruments

The Difficulties in Emotion Regulation Scale – Short Form (DERS-16), the Cyberbullying Scale, and the Problematic Internet Use Scale – Adolescent Form (PIUS-A) were used as data collection instruments.

Difficulties in Emotion Regulation Scale – Short Form (DERS-16)

This study used the Difficulties in Emotion Regulation Scale – Short Form (DERS-16) to determine participants' levels of emotion regulation difficulties. The scale was developed by Bjureberg et al. (2016) and is a short form of the Difficulties in Emotion Regulation Scale prepared by Gratz and Roemer (2004). The DERS-16 consists of five sub-dimensions: "clarity," "goals," "impulse," "strategies," and "non-acceptance." No items are reverse-coded. The item distribution for the sub-dimensions is as follows: Clarity (1, 2), Goals (3, 7, 15), Impulse (4, 8, 11), Strategies (5, 6, 12, 14, 16), and Non-acceptance (9, 10, 13) (Bjureberg et al., 2016).

On the Likert-type scale, participants rate items from 1 = "almost never" to 5 = "almost always." Higher scores indicate greater difficulties with emotion regulation. The Turkish adaptation of the scale was carried out by Yiğit et al. (2017). The total Cronbach's alpha coefficient for the Turkish form is .92, and the coefficients for the subscales range from .78 to .87. The Guttman split-half reliability coefficient was also reported as .87.

Cyberbullying Scale (CBS)

The Cyberbullying Scale (CBS) was used to determine participants' cyberbullying tendencies. The scale was

developed by Arıcak et al. (2011). Comprising 24 items, the scale is answered on a 5-point Likert-type rating: "never" (1 point), "rarely" (2 points), "sometimes" (3 points), "often" (4 points), and "always" (5 points). Accordingly, possible scores on the scale range from 24 to 96. Higher scores indicate a higher level of cyberbullying behavior.

The scale's construct validity was examined with exploratory factor analysis, and it was determined to have a single-factor structure. The Kaiser-Meyer-Olkin value was .939, and the result of Bartlett's Test of Sphericity was $\chi^2=9197.54$ ($p<.05$). The factor loadings of the items ranged from .40 to .76. In this study's sample, the scale's Cronbach's alpha coefficient was calculated as .86.

Problematic Internet Use Scale – Adolescent Form (PIUS-A)

The Problematic Internet Use Scale – Adolescent Form (PIUS-A) was used to determine participants' levels of problematic internet use. The scale was developed by Ceyhan et al. (2007) for measuring problematic internet use in university students and was later adapted for use with adolescents. The scale contains 33 items, and each item is rated on a 5-point Likert scale (1 = "completely appropriate" to 5 = "not appropriate at all"). Possible scores range from 33 to 165. Higher scores indicate that an individual's internet use is unhealthy, negatively affects daily life, and signals a risk of internet addiction. The scale's Cronbach's alpha internal consistency coefficient was determined to be .94. Furthermore, the item-total correlation coefficients were reported to range from .31 to .70 (Ceyhan et al., 2007).

Data Analysis

Before proceeding with the analyses, skewness and kurtosis values for the scale scores were calculated to check the normality assumption, and they were found to be within acceptable ranges. The normality of the distributions was also confirmed using the Kolmogorov-Smirnov test and Q-Q plots. The data were also checked for outliers, and none were detected. Finally, Tolerance and VIF values were examined to test for potential multicollinearity among the variables. The analyses revealed that the VIF values of the variables ranged from 1 to 1.1, and the Tolerance values ranged from 0.88 to 0.99, indicating no multicollinearity problems. Additionally, a test for the homogeneity of variances was conducted for the t-test analyses. The distributions of the scale scores for the groups were found to be homogeneous.

Multiple regression analysis was performed to test the relationships among variables. In addition to descriptive statistical analyses, independent samples t-tests were used. A p-value of .05 was set as the minimum critical value for evaluating the results.

Results

This section presents the findings obtained in the context of the research questions. Table 1 presents the findings related to the levels of emotional regulation difficulties in children and adolescents.

Table 1. Descriptive Statistics of the Difficulty in Emotion Regulation Scale and Gender Variable t-test

	N	Minimum	Maximum	Mean	Std. Deviation
Openness	325	1.00	5.00	3.24	0.84
Goals	325	1.00	5.00	3.36	0.81
Strategy	325	1.00	5.00	3.15	0.81
Impulse	325	1.00	5.00	3.55	0.85
Disagreement	325	1.00	5.00	3.35	0.75
Emotion Regulation Difficulties (General)	325	1.00	5.00	3.33	0.66

Table 1 shows the mean and standard deviation values for the scores obtained by children and adolescents from the Emotion Regulation Scale and its subscales. Analyses revealed that the participants' mean score for the openness subscale was 3.24 ± 0.84 ; the mean score for the goals subscale was 3.36 ± 0.81 ; the mean score for the strategy subscale was 3.15 ± 0.81 ; the mean score for the impulse subscale was 3.55 ± 0.85 ; the mean score for the rejection subscale was 3.35 ± 0.75 ; and the mean score for the overall Emotion Regulation Scale was 3.33 ± 0.66 . According to these findings, participants' Emotion Regulation Disorders were found to be high based on impulse. However, Emotion Regulation was found to be moderate for the other subscales and the overall scale. Table 2 presents findings regarding the levels of problematic Internet use in children and adolescents.

Table 2. Descriptive Statistics of the Negative Internet Use Scale

	N	Minimum	Maximum	Mean	Std. Deviation
Negative Consequences of the Internet	325	1.00	5.00	3.39	0.90
Excessive Use	325	1.00	5.00	3.49	0.94
Social Benefit/Social Comfort	325	1.00	5.00	3.22	0.87
Problematic Internet Use (General)	325	1.00	5.00	3.37	0.77

Table 2 shows the mean and standard deviation values for the scores obtained by children and adolescents from the Problematic Internet Use Scale and its subscales. Analyses revealed that the participants' mean score on the Negative Internet Consequences subscale was 3.29 ± 0.90 ; the mean score on the Overuse subscale was 3.49 ± 0.94 ; the mean score on the Social Benefit/Social Comfort subscale was 3.22 ± 0.87 ; and the mean score on the entire Problematic Internet Use scale was 3.37 ± 0.77 . According to these findings, participants' excessive Internet use was found to be high. However, problematic Internet use was found to be moderate on the other subscales and the entire scale.

Table 3. Negative Internet Use Scale Gender Variable t-Test Results

	Gender	N	Mean	Std. Deviation	t	p
Negative Consequences of the Internet	Female	145	3.31	0.91	-1.318	0.188
	Male	179	3.45	0.90		
Excessive Use	Female	145	3.31	0.91	-3.073	0.002*
	Male	179	3.63	0.95		
Social Benefit/Social	Female	145	3.08	0.88	-2.791	0.006*

	Gender	N	Mean	Std. Deviation	t	p
Comfort	Male	179	3.34	0.84		
Problematic Internet Use	Female	145	3.23	0.78	-2.811	0.005*
	Male	179	3.47	0.76		

*p<0,05.

Analysis of Table 3 revealed that there was no significant difference based on gender for the 'negative consequences' subscale ($p>0.05$). However, a significant difference was found for the 'excessive use' and 'social benefit/social comfort' subscales, as well as for the overall scale ($p<0.05$). According to the group means, boys demonstrated higher problematic internet use behaviors compared to their female peers. Table 4 presents the findings related to the levels of cyberbullying behaviors in children and adolescents.

Table 4. Descriptive Statistics of the Cyberbullying Scale

	N	Minimum	Maximum	Mean	Std. Deviation
Cyberbullying	325	1.00	5.00	2.92	0.78

Table 4 presents the mean and standard deviation for the scores children and adolescents obtained on the cyberbullying behavior scale. Based on the analyses, the participants' mean score on the cyberbullying scale was calculated as 2.92 ± 0.78 . This value indicates that the level of cyberbullying behavior among children and adolescents is at a medium level.

Table 5. Difficulty in Emotion Regulation Scale Gender Variable t-test Results

	Gender	N	Mean	Std. Deviation	t	p
Openness	Female	145	3.34	0.81	2.014	0.045*
	Male	179	3.15	0.85		
Goals	Female	145	3.44	0.79	1.667	0.096
	Male	179	3.29	0.82		
Strategy	Female	145	3.14	0.79	-0.035	0.972
	Male	179	3.15	0.83		
Impulse	Female	145	3.58	0.85	0.548	0.584
	Male	179	3.52	0.85		
Disagreement	Female	145	3.37	0.73	0.352	0.725
	Male	179	3.34	0.77		
Difficulty with Emotion Regulation	Female	145	3.38	0.66	1.133	0.258
	Male	179	3.29	0.65		

*p<0,05.

Based on an analysis of Table 5, it was found that there was no significant difference in the mean scores on the emotion regulation scale across genders, except for one subscale ($p>0.05$). However, a significant difference was

found in the 'clarity' subscale based on gender ($p<0.05$). According to the group means, girls showed greater difficulties with emotion regulation on the basis of clarity compared to boys. Overall, no significant difference was found between the two genders in terms of emotional regulation difficulties.

Table 6 presents the t-test comparison results of children and adolescents' cyberbullying scale scores by gender.

Table 6. Cyberbullying Behavior Scale Gender Variable t-test Results

		N	Mean	Std. Deviation	t	p
Cyberbullying	Female	145	2.78	0.72	-2.929	0.004*
	Male	179	3.03	0.81		

* $p<0.05$

The analyses presented in Table 6 show that participants' cyberbullying behaviors differ significantly by gender ($p<0.05$). The group means indicate that boys' cyberbullying behaviors were higher than their female peers'. Table 7 presents the regression model developed for the relationship among emotional regulation difficulties, problematic internet use, and cyberbullying behavior in children and adolescents.

Table 7. Multiple Regression Analysis Results between Variables

		Unstandardized Coefficients		Standardized Coefficients	-t-	p
Model		B	Std. Error	Beta		
1	(Constant)	1.078	0.236		4.570	0.000**
	Difficulty in Emotion Regulation	0.423	0.063	0.357	6.727	0.000**
	Problematic Internet Use	0.130	0.053	0.129	2.424	0.016*

* $p<0,05$; ** $p<0,001$; Dependent Variable: Cyberbullying; $R=.441$; $R^2=.171$; $F= 33.22$; $p<0.05$

The analyses in Table 7 show that the regression model is statistically significant ($F=33.22, p<0.05$). The model's R^2 value was found to be .171, indicating that the independent variables, emotional regulation difficulties and problematic internet use, account for 17.1% of the variance in the dependent variable, cyberbullying. Based on the Beta values, both independent variables significantly predict cyberbullying behavior ($p<0.05$). In summary, it can be concluded that both emotional regulation difficulties and problematic internet use behaviors make a significant contribution to explaining cyberbullying.

Discussion

In this study, the level of emotion regulation difficulties, problematic internet use and cyberbullying behaviors of children and adolescents was determined and it was determined whether emotion regulation difficulties and problematic internet use significantly predicted cyberbullying behaviors.

Discussion on the Level of Emotional Regulation Difficulties

As part of the first sub-question of the research, the study examined the level of emotional regulation difficulties in children and adolescents. The findings show that participants experienced considerable problems in specific sub-dimensions. The report of high-level difficulties, particularly in the "impulse control" and "strategy development" dimensions, reveals that adolescents struggle to develop effective coping mechanisms in the face of negative emotions (Burton et al., 2022). This finding is consistent with the vulnerabilities of adolescence, a period characterized by emotional intensity and social pressures, as highlighted in previous studies (Miu et al., 2022). Furthermore, the observed difficulties in the "goal-directed behavior" and "acceptance of emotions" dimensions indicate that adolescents also face problems in focusing on goals and recognizing their emotions. When combined with the high frequency of social interactions in online environments, this situation becomes more pronounced, making it easier for individuals to gravitate toward problematic internet use or cyberbullying behaviors (Gioia et al., 2021).

The findings indicate that emotional regulation difficulties are influenced not only by individual psychological processes but also by social contexts. For example, it is known that adolescents experience more problems with emotional regulation skills in contexts with low parental support or a weak school climate (Love et al., 2022; Mérida-López et al., 2025). This was also indirectly observed in our study, where students with high emotional regulation difficulties reported more problems in their online behaviors. Additionally, a deficiency in emotional regulation skills can lead to the dysfunctional expression of intense emotions like anger and frustration, which causes negative consequences in adolescents' social relationships and academic lives (Horwood & Anglim, 2021). Studies in the literature have shown that emotional regulation difficulties lay the groundwork for internalized problems and risky behaviors starting from early adolescence (De Neve et al., 2023). Our study's findings are also consistent, revealing that a low level of emotional regulation skills directly influences adolescents' digital behaviors.

Level of Problematic Internet Use

The second sub-question of the research examined the level of problematic internet use in children and adolescents. The findings revealed that participants used the internet in a dysfunctional and intense way across various aspects. High scores on the "excessive use" sub-dimension were particularly notable, showing that the time adolescents spend online is at a level that disrupts their academic, social, and family responsibilities (Anderson et al., 2017). Furthermore, high levels were found in the "seeking social benefit and comfort" dimension, indicating that adolescents use the internet intensely to combat loneliness, seek social acceptance, or cope with stress (Olenik Shemesh et al., 2023). The findings for the "negative consequences" dimension revealed that internet use leads to negative outcomes such as disrupted sleep patterns, decreased academic performance, and family conflicts (Soriano-Molina et al., 2025).

These results are consistent with studies in the literature that emphasize problematic internet use should be considered a multifaceted risk factor affecting daily life, not just at the level of addiction (Pettorruso et al., 2020;

Yilmaz et al., 2023). The findings also show that problematic internet use is closely related to psychological vulnerabilities; factors like depression, anxiety, and low self-esteem increase problematic use levels (Fu et al., 2020; Mo et al., 2018). Our study found that adolescents with high levels of problematic internet use also experienced difficulties with emotional regulation, pointing to a strong relationship between the two variables. Consistent with reports in the literature, the finding that problematic internet use is more common among adolescents with low family support also aligns with our study (Aponte-Rueda et al., 2017; Günaydin et al., 2022). A higher tendency for problematic use was also observed in adolescents with low school connectedness and low academic achievement, which parallels the results of Ceyhan et al. (2007). High levels of problematic use can pave the way for individuals to be more exposed to or participate in cyberbullying in online environments (Camerini et al., 2020; Zhu et al., 2021). In this context, the findings indicate that problematic internet use is linked not only to individual psychological processes but also to social and environmental factors.

Level of Cyberbullying Behaviors

The third sub-question of the research examined the level of cyberbullying behaviors in children and adolescents. The findings revealed that participants engaged in bullying behaviors with a certain frequency in online environments. Cyberbullying is defined as individuals using digital tools to harm others and has profound effects on social relationships, especially during adolescence (Zhu et al., 2021; Camerini et al., 2020). Our study found that cyberbullying behaviors were at a medium level. This shows that children and adolescents engage in behaviors like aggression and mockery in their online interactions to a certain extent. Similar results were obtained in previous studies in the literature, which stated that a significant portion of adolescents are involved in the cyberbullying cycle as both perpetrators and victims (Elgar et al., 2014; Nagata et al., 2025). Our findings indicate that cyberbullying is not just an individual issue but also a product of the social context; issues in peer relationships, a desire for social exclusion, and a need for acceptance increase the tendency toward cyberbullying (Peprah et al., 2023). It was also observed that cyberbullying behaviors occurred not only in online games or social media environments but also on educational platforms, which reveals a significant risk area in the context of online learning (Schulz et al., 2025).

The fourth sub-question of the research examined whether emotional regulation difficulties, problematic internet use, and cyberbullying behaviors in children and adolescents differed based on gender. The findings on emotional regulation difficulties determined that girls tend to have a higher tendency to reject their emotions and react more intensely to negative emotions. This finding is consistent with studies in the literature that suggest adolescent girls have higher emotional sensitivity (De Neve et al., 2023; Miu et al., 2022). Boys, on the other hand, experienced greater difficulty in the impulse control sub-dimension and tended to exhibit uncontrolled behaviors in the face of negative emotions (Horwood & Anglim, 2021). When assessed in terms of problematic internet use, boys were observed to report higher levels of use, particularly involving online games and risky content, while girls spent more time on social media platforms (Anderson et al., 2017). This parallels findings in the literature related to the differentiation of usage types based on gender (Olenik Shemesh et al., 2023; Pettorruso et al., 2020; Zhu et al., 2021). Additionally, the fact that girls scored higher than boys on the social benefit and social comfort sub-dimensions shows that they use the internet more as a tool for social support (Fu et al., 2020).

From the perspective of cyberbullying behaviors, it was observed that boys were at a higher level in direct aggression, insults, and mockery, while girls participated in bullying through indirect means, such as social exclusion, gossip, or passive-aggressive forms of communication (Li et al., 2023). This difference shows that cultural norms and gender roles are also reflected in online behaviors. The finding that boys reported more bullying perpetration, while girls had higher rates of victimization, is also a pattern reported in previous international research (Camerini et al., 2020; Nagata et al., 2025). While our study's findings are consistent with these general trends, they provide unique contributions to understanding gender-based digital behaviors in a local context. The findings show that gender is not merely a biological difference in digital risk behaviors but also a factor shaped by social roles and cultural expectations (Mérida-López et al., 2025). Therefore, it is clear that both school-based and family-focused prevention programs should be structured to account for the different risk profiles of male and female adolescents.

Predictive Relationships (Regression Results)

The findings from the fifth sub-question of the research revealed that emotional regulation difficulties and problematic internet use are significant predictors of cyberbullying behaviors in children and adolescents. Regression analyses showed that adolescents with high emotional regulation difficulties participate more frequently and intensely in cyberbullying behaviors (Burton et al., 2022; Horwood & Anglim, 2021). This result is consistent with findings reported in the literature that deficiencies in emotional regulation skills are associated with aggression, impulsivity, and reactive behaviors (Miu et al., 2022). In particular, difficulties in the impulse control and strategy development sub-dimensions lead adolescents to prefer aggressive forms of communication and to turn to bullying behaviors in online environments (De Neve et al., 2023). Furthermore, the significant effect of problematic internet use on cyberbullying indicates that adolescents who use the internet dysfunctionally exhibit more risky behaviors online (Anderson et al., 2017; Gioia et al., 2021). Adolescents with high scores on the excessive use and social benefit-seeking dimensions were observed to have a higher likelihood of participating in the bullying cycle or of becoming victims (Olenik Shemesh et al., 2023; Quaglieri et al., 2021).

These findings show that the internet is not just a communication tool but also a platform where negative behaviors such as aggression and social exclusion are exhibited (Zhu et al., 2021). Additionally, the results show that emotional regulation difficulties and problematic internet use are mutually reinforcing variables, and their explanatory power on cyberbullying increases when considered together (Xu et al., 2024; Soriano-Molina et al., 2025). This finding is consistent with studies in the international literature that address the relationship between problematic technology use, emotional regulation difficulties, and aggressive behaviors (Yang et al., 2022). Our research provides unique contributions to the field by revealing the existence of this predictive relationship, particularly in a sample of Turkish adolescents. The regression results also indicate that preventive interventions should be developed not only at the individual level but also at the societal level. This is because programs aimed at improving emotional regulation skills and reducing problematic internet use can be effective in preventing cyberbullying behaviors (Hasani & Shahmoradifar, 2022; Love et al., 2022). At this point, it is clear that school guidance services, family education, and community awareness efforts should be approached within a holistic framework.

Conclusion

This research has made significant contributions from both a theoretical and practical standpoint by addressing children's and adolescents' emotional regulation difficulties, problematic internet use, and cyberbullying behaviors within a holistic framework. The findings revealed that adolescents experience medium-to-high-level difficulties with emotional regulation skills, with significant problems particularly in the impulse control and strategy development dimensions. The results concerning problematic internet use showed that the dimensions of excessive use and seeking social benefit stood out. Cyberbullying behaviors were found to be at a medium level, but this level was observed to increase in combination with emotional regulation difficulties and problematic internet use.

Regarding gender differences, female students were at a higher level in seeking social benefit, while male students scored higher on impulse control issues and direct aggression behaviors. The regression analyses showed that both emotional regulation difficulties and problematic internet use significantly predicted cyberbullying behaviors. By focusing specifically on Turkish adolescents, the research offered unique contributions to the literature in a cultural context. It is clear that there is a need for interdisciplinary and holistic approaches to support the psychosocial adjustment of children and adolescents in the digital age.

Recommendations

While this research presents important findings, it also has some limitations. First, because the sample consists of children and adolescents from a specific region, the generalizability of the results is limited. Future research with broader and more diverse samples could increase the variety of the findings. The study was conducted with a cross-sectional design, making it impossible to clearly establish causal relationships among the variables. Longitudinal studies could more strongly explain the direction of the relationships among variables over time (Miu et al., 2022). Additionally, the research relied solely on self-report scales, which may have led participants to provide responses influenced by social desirability bias. Including observation, teacher opinions, or parent reports could contribute to obtaining more reliable results in future research. Another limitation is the cultural context of the study, as emotional regulation, internet use, and bullying behaviors are influenced by cultural factors (Zhu et al., 2021). Studies conducted in different cultural contexts would allow for a comparative examination of the results. One final limitation is the limited structure of the scales used; some sub-dimensions may not fully reflect the experiences of adolescents. Furthermore, while gender differences were examined, variables such as socioeconomic status, family structure, and school type were not included in this study. Considering these variables in future studies will contribute to a more comprehensive interpretation of the results.

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