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Research Article

The Effect of Addiction Prevention Course on Behavioral Addictions and Disordered Eating Behavior

Bağımlılığı Önleme Dersinin Davranışsal Bağımlılıklar ve Düzensiz Yeme Davranışları Üzerindeki Etkisi

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Abstract

Purpose: *This study examined the impact of an Addiction Prevention course on university students' behavioral addictions and eating behaviors, aiming to promote healthier lifestyle habits in higher education. The research focused on technology addiction, online shopping addiction, and disordered eating, which are increasingly prevalent among young adults.* ***Method:*** *The sample consisted of 104 undergraduate students in Türkiye, with 52 assigned to the experimental group and 52 to the control group. The experimental group participated in a structured 10-week (20-hour) Addiction Prevention course, while the control group received no intervention. The program was delivered within a peer-interactive framework under the guidance of the researcher and incorporated Cognitive Behavioral Therapy (CBT) techniques, such as cognitive restructuring and self-regulation, along with motivation enhancement strategies to address deficits in self-control associated with behavioral addictions and disordered eating. A pretest–posttest control group design was employed. Data were collected using a Personal Information Form, Technology Addiction Scale, Online Shopping Addiction Scale, and Eating Disorders Behavior Scale.* ***Findings:*** *Findings indicated significant reductions in behavioral addiction levels in the experimental group compared to the control group. Notable decreases were observed in subdimensions of technology addiction, including social media use, instant messaging, online gaming, and website usage. Improvements were also found in online shopping addiction and disordered eating behaviors.* ***Conclusion:*** *These results suggest that structured psychoeducational programs are effective in reducing behavioral addictions and promoting healthier habits among university students. Integrating such courses into university curricula and providing ongoing guidance services may help sustain these positive outcomes.*

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Öz

Amaç: *Bu çalışma, üniversite öğrencilerinin davranışsal bağımlılıkları ve yeme davranışları üzerindeki Bağımlılığı Önleme dersinin etkisini inceleyerek yükseköğretimde daha sağlıklı yaşam alışkanlıklarının geliştirilmesine katkı sağlamayı amaçlamaktadır. Araştırma; genç yetişkinler arasında giderek yaygınlaşan teknoloji bağımlılığı, çevrim içi alışveriş bağımlılığı ve bozulmuş yeme davranışlarına odaklanmıştır.* ***Yöntem:*** *Araştırmanın örneklemini Türkiye'de öğrenim gören 104 lisans öğrencisi oluşturmuştur. Katılımcıların 52'si deney grubunda, 52'si kontrol grubunda yer almıştır. Deney grubu 10 hafta (20 saat) süren yapılandırılmış Bağımlılığı Önleme dersine katılmış, kontrol grubuna ise herhangi bir müdahale uygulanmamıştır. Program, araştırmacı rehberliğinde akran etkileşimli bir çerçevede yürütülmüş; davranışsal bağımlılıklar ve düzensiz yeme davranışlarında sık görülen öz-denetim eksikliğini hedeflemek amacıyla Bilişsel Davranışçı Terapi (BDT) teknikleri (bilişsel yeniden yapılandırma, öz-düzenleme) ve motivasyon artırma stratejileri kullanılmıştır. Araştırmada ön test–son test kontrol gruplu desen kullanılmıştır. Veriler; Kişisel Bilgi Formu, Teknoloji Bağımlılığı Ölçeği, Çevrim İçi Alışveriş Bağımlılığı Ölçeği ve Yeme Bozukluğu Davranışları Ölçeği aracılığıyla toplanmıştır.* ***Bulgular:*** *Bulgular, deney grubunda davranışsal bağımlılık düzeylerinde kontrol grubuna kıyasla anlamlı azalmalar olduğunu göstermiştir. Özellikle teknoloji bağımlılığının sosyal medya kullanımı, anlık mesajlaşma, çevrim içi oyun ve web sitesi kullanımı alt boyutlarında belirgin düşüşler saptanmıştır. Ayrıca çevrim içi alışveriş bağımlılığı ve düzensiz yeme davranışlarında da iyileşmeler görülmüştür.* ***Sonuç:*** *Sonuçlar, yapılandırılmış psiko-eğitsel programların üniversite öğrencilerinde davranışsal bağımlılıkları azaltmada ve sağlıklı alışkanlıkları desteklemede etkili olduğunu göstermektedir. Bu tür derslerin üniversite müfredatına entegre edilmesi ve sürdürülebilir rehberlik hizmetleriyle desteklenmesi önerilmektedir.*

Introduction

Addiction is defined as a disorder in which an individual feels a compulsive urge to repeat the use of a substance or behavior, loses control, and continues this behavior despite its harmful consequences (Marlatt et al., 1988). Although traditionally addressed in terms of alcohol, tobacco, and substance use, behavioral addictions that do not involve chemical substances have also become a rapidly growing problem among young people in recent years. These addictions are characterized by an individual's obsessive interest in a particular behavior and their inability to control it. These addictions include different areas such as technology addiction, online shopping addiction, and eating addiction (Griffiths, 2005). Today, young adults in particular are more susceptible to both digital and non-digital types of addiction. The university period is a developmental stage where addiction formation is frequently triggered due to social adaptation, identity development, academic expectations, and changes in lifestyle.

Technology addiction is a broad field encompassing internet, social media, online gaming, instant messaging, and website use. It is a significant health issue, particularly among young people, that is increasingly prevalent and has multidimensional negative

consequences. Social media addiction is a type of behavioral addiction characterized by an individual's excessive interest in social media platforms, an inability to stop using these platforms, and spending an amount of time that interferes with daily life activities (Pellegrino et al., 2022). For example, internet and social media addiction can cause deterioration in individuals' social relationships, decline in academic performance, and problems with emotional balance (Kuss & Griffiths, 2011). Social media addiction triggers a constant desire for approval among young people, leading to low self-esteem and anxiety disorders (Andreassen et al., 2016). Gaming addiction is a condition characterized by an individual losing control over their online and offline digital gaming behavior. This condition is defined by gaming taking precedence over all other life activities and continuing to escalate despite negative consequences (Kuss, 2013). Internet and gaming addiction have also been linked to health problems such as attention deficit, sleep problems, and physical inactivity (Young, 2009). Also, video game addiction among young people has been associated with decreased academic success, deteriorating social relationships, and physical health issues (Gentile et al., 2011; Karhulahti et al., 2023).

One of the primary reasons for the increasing prevalence of behavioral addictions among young people is the pervasive influence of technology and its easy accessibility. The widespread use of smartphones, in particular, has led young individuals to remain constantly connected to social media platforms and online games. Website addiction, is defined as an individual spending excessive and uncontrolled amounts of time on specific content (news, entertainment, information searches, etc.) in the online environment, to the extent that it interferes with their daily responsibilities (Valdez & Patterson, 2022). Instant messaging addiction is a type of social addiction characterized by the urge to stay constantly connected via smartphones and various applications, to check messages instantly, and to respond immediately (Huang & Leung, 2009). Looking at the definitions of the two variables, it is noteworthy that they are related to the increased use of smartphones. This situation contributes to time management problems and social isolation (Billieux et al., 2015; Sun & Zhang, 2021).

Online shopping addiction is another form of behavioral addiction characterized by an uncontrollable urge to shop through digital platforms, which negatively impacts daily life. This addiction is particularly prevalent among young people, driven by easy access and constant exposure to advertisements (Müller, 2022). The temporary pleasure derived from shopping increases the risk of addiction and may lead to emotional and financial difficulties over time (Black, 2007). Online shopping offers unlimited choices and no time constraints, which further escalates the risk of addiction (Kukar-Kinney et al., 2009).

Online shopping addiction can lead to uncontrolled spending, credit card debt, and financial difficulties among young individuals. It is also associated with adverse emotional outcomes, including feelings of regret and guilt (Dittmar, 2005). Although shopping may initially serve as a coping mechanism for stress, over time it tends to intensify stress and anxiety (Rose & Dhandayudham, 2014). The pervasive influence of social media and

digital platforms exposes young people to continuous marketing pressures, thereby reinforcing compulsive consumption behaviors (Andreassen et al., 2015).

Eating addiction represents another form of behavioral addiction, characterized by an inability to regulate eating behavior and a pattern of excessive, impulsive food consumption. This addiction is particularly common among young people and can result in unhealthy eating patterns and obesity-related health complications (Davis, 2013). Moreover, maladaptive eating patterns—including anorexia nervosa, bulimia nervosa, and binge-eating disorder—are common among adolescents and young adults, presenting considerable health concerns (Fairburn & Harrison, 2003). Anorexia nervosa is defined by severe food restriction combined with an overwhelming fear of gaining weight, while bulimia nervosa entails repeated binge-eating episodes followed by compensatory actions such as self-induced vomiting, intense physical activity, or laxative use (Hübel et al., 2021), binge-eating disorder is marked by recurrent excessive food intake, typically associated with considerable emotional distress. (Hudson et al., 2007). These disorders profoundly affect both physical and mental health, contributing to depression, anxiety, and a range of other psychological difficulties (Stice et al., 2013).

Disordered eating behaviors and behavioral addictions (social media, gaming, website, and messaging addiction) often co-occur and share underlying mechanisms such as reward seeking and impaired impulse control (Colder Carras et al., 2024). In the context of prevention, addressing these issues simultaneously is crucial, as excessive time spent in digital environments—such as mindless eating while in front of a screen or negative social comparisons on social media—can exacerbate eating-related problems. Meta-analyses on this topic show that smartphone addiction is highly associated with unhealthy eating habits and increased sugar intake, particularly among young populations (Ding & Li, 2023; Lu et al., 2025).

Behavioral addictions and disordered eating are becoming increasingly prevalent among young individuals, posing serious risks to both physical and mental health (Stice & Shaw, 2004). Early prevention of these conditions is essential for supporting the healthy development of young people. The existing literature highlights the importance of guidance and psychoeducational programs designed to prevent behavioral addictions and disordered eating, raise awareness, and empower young individuals to cope with these challenges (Levine & Smolak, 2002).

Prevention initiatives implemented in schools and universities help students recognize risky behaviors and adopt healthier lifestyle habits (Watson et al., 2017). Psychological counseling and guidance services play a pivotal role in equipping young individuals with the skills needed to manage behavioral addictions and disordered eating. For example, one study demonstrated that a school-based guidance program successfully promoted healthier eating habits and reduced negative body image perceptions among adolescents (Neumark-Sztainer et al., 2009).

However, research indicates that existing prevention and guidance programs need to be further developed and expanded. For example, peer-based projects such as 'Net-Piloten' (Net Pilots) and cognitive behavioral therapy (CBT)-based group interventions such as 'PROTECT' (Professional Use of Technical Media) have been effective in reducing symptoms of digital addiction by increasing young people's self-regulation skills (Colder Carras et al., 2024; Lindenberg et al., 2022). Furthermore, gamification-based programs such as 'Wise IT-use' (WIT) and mobile app-supported interventions such as 'HAPPY-TEEN' show promise in preventing problematic internet use by increasing digital health literacy (Ding & Li, 2023). However, meta-analyses in the literature emphasize that many of these interventions are still limited to small sample groups and that the level of evidence needs to be strengthened (Lu et al., 2025). In today's digital era, the pervasive use of technology and the internet places young people at an even greater risk, underscoring the need for more effective prevention strategies (Griffiths, 2005). Behavioral addictions can significantly disrupt academic performance and social relationships, making early intervention and counseling services especially important (Kuss & Lopez-Fernandez, 2016).

Studies on the prevention of disordered eating also emphasize the importance of teaching emotional awareness and stress management skills (Stice et al., 2013). Psychoeducational programs that integrate a multidisciplinary approach can help young individuals build resilience against disordered eating (Levine & Smolak, 2006). Overall, the need for research and the development of comprehensive prevention programs addressing both behavioral addictions and disordered eating is becoming increasingly urgent.

Most existing research on behavioral addiction prevention focuses primarily on internet addiction. However, there is a notable lack of preventive guidance programs in Türkiye targeting social media use, video gaming, instant messaging, and online shopping addictions. Similarly, preventive initiatives related to disordered eating remain limited. Therefore, the present study aims to investigate whether participation in an Addiction Prevention course leads to differences in levels of technological addictions, online shopping addiction, and disordered eating behaviors among students, comparing pre- and post-intervention outcomes between those who participated in the course and those who did not. In order to achieve its objectives, this study aims to address the following research questions that guide the overall direction of the inquiry:

1. Does the level of technological addiction (social network use, instant messaging, online gaming, and website usage) significantly differ before and after the Addiction Prevention course among students who have and have not taken the course?

2. Does the level of online shopping addiction significantly differ before and after the Addiction Prevention course among students who have and have not taken the course?

3. Does the level of disordered eating behaviors significantly differ before and after the Addiction Prevention course among students who have and have not taken the course?

Methodology

Research Design

In this study, a quasi-experimental approach was adopted, utilizing a pretest–posttest design with control and experimental groups. In this design, participants are assessed on the dependent variables both before and after the experimental intervention (Karasar, 2009).

Participants

For participant selection, a convenience sampling strategy was applied, and the research was implemented among students from the Faculty of Education at the university with which the researcher is affiliated. The experimental group comprised students enrolled in the "Addiction and Addiction Prevention" course, while the control group included students from the same faculty who had not taken this course. Each group consisted of 52 students, totaling 104 participants. The age of the participants varied from 18 to 34 years, and the mean age was calculated as 20.79. They were second- and third-year students representing six different departments. Table 1 outlines the demographic information for the participants in the experimental and control groups.

Table 1: *Participant Characteristic*

Variable	N		Valid %
Gender	*Experiment*	*Control*	
Woman	36	32	65.4
Man	16	20	34.6
Class	*Experiment*	*Control*	
2	29	38	64.4
3	23	14	35.6
Departments	*Experiment*	*Control*	
Turkish teaching	1	12	12.5
Psychological counseling and guidance	24	7	29.8
Mathematics teaching	15	8	22.1
Classroom teaching	4	8	11.5
Pre-school teaching	4	2	5.8
Social studies teaching	4	15	18.3

The distribution of participants across gender, grade level, and departmental affiliation in the experimental and control groups was examined using a chi-square test. No differences between groups based on gender were observed ($\chi^2(1) = .68$, $p = .537$). No differentiation between groups was observed according to class level ($\chi^2(1) = 3.40$, $p = .101$). However, differences were observed between groups based on the departments the students were enrolled in ($\chi^2(5) = 29.14$, $p = .000$).

According to the chi-square analyses, the experimental and control groups did not differ significantly in terms of gender and grade level, suggesting that these demographic characteristics were balanced across groups. This homogeneity enhances the internal validity of the study by minimizing potential confounding effects related to gender and class year. However, the groups differed significantly with respect to their academic departments. Such an imbalance across disciplines could affect the generalizability of the findings and should be accounted for as a possible covariate when interpreting the results.

Data Collection Tools

Personal Information Form

The researcher designed this form to gather demographic information, such as participants' gender, age, class level, and department.

Technology Addiction Scale Online

Developed by Aydın (2017), this 24-item scale assesses students' technology addiction levels. The questionnaire consists of four distinct subscales: Social Network Addiction Scale (SNAS), Instant Messaging Addiction Scale (IMAS), Online Gaming Addiction Scale (OGAS), and Website Addiction Scale (WAS). Responses to each item are measured using a 5-point Likert-type scale. The reported Cronbach's alpha values for the subscales were .79 for SNAS, .81 for IMAS, .90 for OGAS, and .86 for WAS, indicating satisfactory reliability. In this study, the coefficients were found to be .61, .66, .86, and .86, respectively. The overall reliability coefficient was calculated as .87.

Shopping Addiction Scale (OSAS)

This scale was developed by Zhao et al. (2017) and adapted into Turkish by Yılmaz et al. (2022). It consists of six factors: Salience (α = .76), tolerance (α = .84), mood modification (α = .71), withdrawal (α = .83), relapse (α = .84), and conflict (α = .83). Each factor includes three items, making a total of 18 items. Participants rated each item on a 5-point Likert scale, with scores ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The original scale's internal consistency coefficient was reported as α = .95, while the adapted version was found to have an overall internal consistency coefficient of α = .92. For this research, the scale's reliability was assessed, and the Cronbach's alpha coefficient was found to be α = .89.

Eating Disorder Examination Questionnaire (EDE-Q-13)

The 13-item instrument, created by Fairburn and Beglin (1994) and later adapted to Turkish by Esin and Ayyıldız (2022), uses a 7-point Likert-type response scale and consists of five subscales: restrictive eating, concerns regarding body shape and weight, body dissatisfaction, binge eating, and purging behaviors. The overall Cronbach's alpha value was reported as .89, with subscale reliability values ranging from .75 to .94. The

Exploratory Factor Analysis (EFA) results indicated that the factors of EDE-Q-13 explained 83.54% of the total variance. For the purposes of this research, the overall Cronbach's alpha coefficient of the scale was calculated and determined to be .91, indicating high reliability.

Procedure

At the beginning of the academic term in October 2024, the Technology Addiction Scale, Online Shopping Addiction Scale, and Eating Disorder Examination Questionnaire were administered to students enrolled in the *Addiction and Addiction Prevention* elective course. Students were given comprehensive information regarding the study prior to their involvement and subsequently provided informed consent. The same instruments were also administered to the control group, which consisted of students who had not taken the course.

In October, the researcher delivered an introductory session covering behavioral and substance addictions. Following this, students were divided into groups to ensure equal participation in lectures and prevention activities addressing behavioral addictions such as social media, smartphone use, gaming, internet use, messaging, online shopping addiction, and disordered eating.

Under the researcher's guidance, students designed and implemented group-based addiction prevention activities in the classroom. These psychoeducational activities focused on enhancing awareness, self-regulation, and healthy behavioral habits. Each group selected one type of behavioral addiction and developed structured sessions employing interactive techniques such as role-playing, group discussions, case analyses, and scenario-based learning. Sample activities included identifying triggers for online shopping urges, managing screen time through self-monitoring logs, exploring emotional eating via guided reflection, and practicing refusal skills to resist peer pressure. The activities incorporated cognitive-behavioral and motivational enhancement strategies to foster critical thinking and goal setting.

The researcher also served as the students' primary instructor, which provided the advantage of continuous monitoring and observation. A structured weekly protocol was followed for each intervention: Each student group was required to submit their activity plans to the researcher (instructor) via email before each session. These plans were reviewed for scientific accuracy and alignment with behavioral prevention goals. During classroom presentations, the researcher acted as a participant-observer, ensuring peer interactions focused on target behaviors and providing immediate feedback when necessary. This dual role ensured a high level of "intervention fidelity" and allowed for qualitative monitoring of students' behavioral changes over the 10-week period.

The preventive guidance interventions developed by students with the help of researcher(s) are based on an integrated framework targeting the common psychological

precursors of behavioral addictions (e.g., impaired self-regulation and maladaptive cognitive processes). Students identified their own 'cognitive distortions' related to their addictions (e.g., 'If I don't check my notifications immediately, I'll lose my friends'). In groups, they did 'cognitive restructuring' exercises to replace these with realistic thoughts. To encourage goal setting in terms of motivation enhancement therapy (MET), 'decision balance sheets' were used, where students listed the pros and cons of their current habits and a healthy lifestyle. This helped students move from the thinking stage to the action stage for change.

Customizations have been made for each type of addiction. For example, behavioral guidance activities specific to each sub-dimension of technology addiction (such as social media, gaming, regulating phone usage hours, turning off notifications) have been designed. For example, one of the activities designed for social media addiction is the Chain Breaking activity. First, students are asked to set a social media time limit (3 hours, 2 hours, etc., depending on the individual's situation). Then, the class is asked what they can do with the time they have left after social media (go for a walk, read a book, go on a trip with friends, etc.). They are then asked to choose an activity that appeals to them and set it as their goal. These goals are reviewed by the student at the beginning of each week. These goals are written on the Chain Breaking Calendar distributed to the class at the beginning of the activity. Efforts are made to spend less time on social media. It is emphasized that the main goal is not to break the chain, and the activity is concluded.

For online shopping addiction, behavioral methods that could prevent compulsive buying behavior (such as activities to develop budget planning and mindful consumption habits) were addressed. For disordered eating, activities were planned on topics such as healthy living and nutrition education and developing a positive body image. This dual approach ensured that core prevention strategies remained consistent across groups, while interactive scenarios and case studies were adapted to address the unique triggers of each addiction type, including the emotional components of disordered eating and the impulsive nature of online shopping. The course spanned 10 weeks, with 2 hours per week, totaling 20 hours of practice. The assessment scales were re-applied to participants in both the experimental and control groups in January 2025 to evaluate changes resulting from the intervention.

Data Analysis

Quantitative data were processed using SPSS version 25. Independent samples t-tests and two-way ANOVAs were applied to examine the differences between pre-test and post-test scores. The normality of the data was evaluated through skewness and kurtosis values, which ranged from –1.5 to +1.5, falling within the acceptable thresholds recommended by Tabachnick, Fidell, and Ullman (2013). At the same time, the homogeneity of variances was controlled according to the experimental and control groups, and this situation was taken into account when selecting the statistical method used in the findings section.

Independent-samples t-tests were used to identify whether the mean scores of the experimental and control groups showed statistically significant differences. A mixed-design two-way ANOVA was conducted to assess the impact of the intervention, considering both group (experimental vs. control) and time (repeated measurements) as factors influencing the dependent variables (Büyüköztürk, 2018).

Results/Findings

Because different types of Likert scales were used in the study, mean scores were calculated for analysis. Table 2 presents the descriptive statistics, including means and standard deviations, for the pretest and posttest scores on both subscales and the overall scales, as reported by the participants in the experimental and control groups.

Table 2: *Descriptive Statistics (Means and Standard Deviations) of Pretest–Posttest Scores on Subscales and Overall Scales for Experimental and Control Groups*

Scales	Experimental Group				Control Group			
	Pretest		Posttest		Pretest		Posttest	
	x̄	Ss	x̄	Ss	x̄	Ss	x̄	Ss
TAS-SNU	2.94	.63	2.38	.70	2.92	.97	2.78	.93
TAS-IM	3.08	.92	2.35	.58	2.91	.93	2.92	.89
TAS-OG	2.14	1.00	1.66	.63	2.26	1.23	2.23	1.13
TAS-WU	3.16	1.10	2.07	.68	2.76	1.21	2.78	1.06
TAS-Total	11.33	2.52	8.46	1.74	10.88	3.30	10.73	3.08
EDEQ	3.50	2.40	2.19	1.56	3.47	2.33	3.16	2.39
OSAS	9.91	2.73	7.71	2.71	7.78	2.68	7.86	2.50

Note. TAS = Technology Addiction Scale, SNU = Social Network Usage, IM = Instant Messaging, OG = Online Gaming, WU = Website Usage, EDEQ = Eating Disorder Examination Questionnaire, OSAS = Online Shopping Addiction Scale

The pretest mean scores for technology addiction/social network usage in the experimental and control groups were 2.94 and 2.92, respectively. Results of the independent-samples t-test showed that the mean scores of the two groups did not differ significantly (t=.120, p>.05). The pretest mean scores for technology addiction/instant messaging in the experimental and control groups were 3.08 and 2.91, respectively. Results from the independent-samples t-test indicated that the mean scores of the two groups did not differ significantly (t =.952, p>.05).

Findings Related to Research Question 1 and 3

The pretest mean scores for technology addiction/online gaming in the experimental and control groups were 2.14 and 2.26, respectively. Analysis using an independent-samples t-test showed that there was no statistically significant difference in mean scores between the two groups (t =-.574, p>.05). The pretest mean scores for technology addiction/website usage in the experimental and control groups were 3.16 and 2.76, respectively. Analysis using an independent-samples t-test showed that there was no

statistically significant difference in mean scores between the two groups (t =1.732, *p*>.05). The pretest mean scores for total technology addiction in the experimental and control groups were 11.33 and 10.88, respectively. Analysis using an independent-samples t-test showed that there was no statistically significant difference in mean scores between the two groups (t =.795, *p*>.05). The pretest mean scores for disordered eating in the experimental and control groups were 3.50 and 13.47, respectively. Analysis using an independent-samples t-test showed that there was no statistically significant difference in mean scores between the two groups (t =.065, *p*>.05). This indicates that the pretest mean scores for total technology addiction, subscale scores, and disordered eating in the experimental and control groups were statistically similar. Therefore, whether there is a difference between the groups for both variables was resolved using an independent samples t-test. For this, posttest and pretest score differences were calculated, the groups were compared, and the results are presented in Table 3.

Table 3: *T-Test Results for the Differences Between Pretest and Posttest Scores on the Technology Addiction Scale, Its Subscales, and the Disordered Eating Examination Questionnaire Across Groups*

Scales	Group	N	x̄	S	sd	t	p	Cohen's *d*
1.TAS- Social Network Usage	Experimental	52	-.55	.73	102	-3.128	.002	0.616
	Control	52	-.13	.63				
2. TAS- Instant Messaging	Experimental	52	-.74	.87	102	-4.369	.000	0.851
	Control	52	.00	.87				
3. TAS- Online Gaming	Experimental	52	-.48	.84	102	-2.754	.007	0.542
	Control	52	-.03	.82				
4. TAS- Website Usage	Experimental	52	-1.09	.97	102	-5.486	.000	1.076
	Control	52	.02	1.09				
5. TAS-Total	Experimental	52	-2.87	2.15	102	-6.393	.000	1.250
	Control	52	-.15	2.20				
6. Disordered Eating	Experimental	52	-1.31	1.88	102	-3.421	.001	0.562
	Control	52	-.31	.94				

When Table 3 is examined, the differences between posttest and pretest mean scores reveal significant differences between the experimental and control groups in social network usage [t(52) = –3.128, *p*<.05], instant messaging [t(52) = –4.369, *p*<.001], online gaming addiction [t(52) = –2.754, *p*<.05], website usage [t(52) = –5.486, *p*<.001], overall technology addiction [t(52) = –6.393, *p* < .001], and eating disorders [t(52) = –3.421, *p*<.05]. The effect sizes (Cohen's d) of the differences between groups were also calculated to assess the magnitude of the intervention's effect. The results showed moderate to large effect sizes ranging from 0.542 to 1.250, indicating that the addiction prevention program had a significant practical effect in reducing students' technology addiction and disordered eating behaviors.

Findings Related to Research Question 2

Examining the mean score differences shows that the control group has higher mean scores across all variables. Since higher scores indicate greater levels of addiction, the lower mean scores in the experimental group represent a favorable outcome. This

suggests that students who attended the addiction prevention course experienced reductions in all dimensions of technology addiction and disordered eating behaviors.

The pretest mean scores for online shopping addiction were 9.91 in the experimental group and 7.78 in the control group. Results of the independent-samples t-test demonstrated a significant difference between the two groups at baseline (t=4.015, p<.05), implying that the groups were not equivalent initially. Therefore, group differences (given normal distribution and equal variances) were further examined using a two-way ANOVA, with results presented in Table 4.

Table 4: *ANOVA Results for the Total Scores of the Online Shopping Addiction Scale by Experimental and Control Groups on Pretest-Posttest Differences of Students*

Source of Variance	Sum of Squares	Sd	Avg. Squares	F	p	η^2
Online Shopping Addiction						
Pretest/Posttest	82.258	1	82.253	11.652	.001	.054
Group (Experimental/Control)	32.643	1	32.643	4.624	.033	.022
Test X Group	93.157	1	93.157	13.196	.000	.061
Error	1440.125	204	7.059			
Total	15693.200	208				

According to the analysis of variance, a significant difference in the total scores of the Online Shopping Addiction Scale was observed based on pretest-posttest scores (F[1,204]=11.65, p<.05), the experimental-control group (F[1,204]=4.62, p<.05), and the interaction between test scores and the experimental-control group (F[1,204]=13.20, p<.001). The average score for online shopping addiction in the experimental group was lower on the posttest ($\bar{x}$= .71) compared to the pretest ($\bar{x}$ = 9.91). In contrast, the control group's average online shopping addiction score remained similar between the pretest ($\bar{x}$=7.78) and posttest ($\bar{x}$=7.86). The partial eta squared (η^2 =.061) for the interaction effect (Test x Group) indicates that approximately 6.1% of the variance in online shopping addiction scores can be explained by the participation in the prevention program, which represents a statistically significant and meaningful effect size in a social science context. Based on this finding, it can be said that the students who participated in the anti-addiction course showed a significant decrease in their online shopping addiction levels compared to those who did not take the course.

Discussion

The present research sought to explore the potential impact of an Addiction Prevention course on students' behavioral addiction and eating patterns. The findings suggest that the course contributed to a reduction in participants' addiction levels, aligning with previous scholarship that has reported comparable outcomes (Kuss & Griffiths, 2011; Andreassen et al., 2015).

Specifically, the data regarding technology addiction and its various subdimensions appear to indicate that the Addiction Prevention course was instrumental in lowering addiction levels. The observation that the course was associated with a significant decrease across all measured subdimensions—including social media usage, instant messaging, online gaming, and website usage—may reflect the overall efficacy of the curriculum. These results are largely consistent with existing literature highlighting the role of psychoeducational and awareness-raising initiatives in mitigating technology addiction (Berber Çelik, 2016; Billieux et al., 2015; Dicle, 2018; Kuss & Lopez-Fernandez, 2016; Liu et al., 2015). Contextualizing these findings within recent experimental research further supports this trend. For instance, Avci et al. (2023) utilized a peer education model to address smartphone addiction, finding that a four-week intervention involving psychodrama and group interaction led to a significant decline in addiction scores. Similarly, Cengiz and Gürkan (2025) reported that an awareness-based program successfully reduced technology addiction among university students during the COVID-19 pandemic, with the intervention group demonstrating markedly lower social media and messaging usage compared to a control group.

Furthermore, broader evidence from meta-analytical and modular studies lends weight to these observations. Park et al. (2022) noted that online interventions utilizing cognitive-behavioral techniques could effectively reduce the symptoms and frequency of addictive online behaviors. This is echoed by the PIPATIC Program (Torres-Rodríguez et al., 2018), which demonstrated that a multi-modular psychoeducational approach tends to yield positive outcomes in reducing gaming addiction symptoms. Additionally, studies by Anjani et al. (2024) and Manwong et al. (2018) both observed reductions in social media addiction through self-management and motivational interviewing techniques. Finally, the umbrella review by Lu et al. (2025) reinforces the notion that preventive programs and group counseling remain effective strategies for addressing internet and screen addiction in the short term. Taken together, these recent developments strengthen the premise that targeted preventive measures are a viable means of reducing technological dependencies.

It is essential to distinguish between the clinical spectrum of eating disorders and addiction-like eating behaviors. While Anorexia Nervosa and Bulimia Nervosa involve complex psychological etiologies that extend beyond the addiction model, certain disordered eating patterns—particularly binge eating and loss of control—exhibit notable parallels to behavioral addictions regarding reward-seeking and impaired inhibitory control (Lu et al., 2025). The present findings suggest that the intervention may be particularly effective in addressing these 'addiction-like' triggers, such as impulsive snacking or emotional eating during screen time, rather than clinical eating disorder pathologies. Notably, the experimental group demonstrated a decrease in disordered eating symptoms following the intervention, aligning with the expectation that psychoeducational programs can enhance awareness and promote healthy habits (Stice et al., 2013).

Supporting this perspective, Vanderkruik et al. (2020) observed that young women participating in "The Body Project" demonstrated significant reductions in body dissatisfaction, thin-ideal internalization, and dietary restriction compared to a control group. Similarly, Pérez Vázquez et al. (2024) reported that an online psychoeducational intervention for Spanish adolescents appeared to facilitate a reduction in disordered eating behaviors.

The observed reduction in both technology addiction and disordered eating symptoms may stem from the guidance activities within the Addiction Prevention course, specifically those focusing on fundamental self-regulation skills. The program addressed stimulus-response patterns common to both digital overuse and disordered eating, such as the use of screens as distractions during meals or social media as a catalyst for body dissatisfaction. These findings are consistent with recent comprehensive reviews highlighting that CBT-based interventions can effectively target the emotional distress underlying various forms of digital addiction. Consequently, the concurrent improvement in both variables points toward the potential efficacy of a multifaceted prevention approach within digital environments.

The study revealed a significant decline in online shopping addiction levels within the experimental group. This finding corroborates prior research suggesting that prevention-focused and awareness-raising programs possess the potential to influence individual consumption patterns (Rose & Dhandayudham, 2014; Sun & Zhang, 2021). Given that online shopping addiction is often closely linked to emotional states and may be exacerbated by factors such as stress and anxiety (Dittmar, 2005), psychoeducational interventions are posited to have a positive impact on moderating these behaviors.

The present research contributes to the literature by exploring the impact of an Addiction Prevention course on university students' behavioral addictions and eating habits. Scholarly work regarding the influence of prevention programs on non-substance addictions remains relatively limited; thus, this study provides a meaningful contribution by focusing specifically on social media usage, online shopping, and disordered eating (Andreassen et al., 2015; Rose & Dhandayudham, 2014). These findings suggest that addiction prevention courses may offer beneficial effects that extend beyond substance-related dependencies to encompass various behavioral addictions.

Additionally, this study aligns with the perspective that different types of addiction may share underlying mechanisms and that education-based interventions can be applicable across various domains. Previous research has indicated that behavioral addictions activate reward systems similar to those involved in substance use, potentially relying on comparable neurobiological processes (Gearhardt et al., 2009; Davis, 2013). The current results underscore the possibility that addiction prevention programs not only raise awareness but also facilitate healthy behavioral adjustments within a relatively short timeframe. Furthermore, while existing literature on disordered eating has primarily emphasized psychological determinants (Fairburn & Harrison, 2003; Stice et

al., 2013), the current study highlights the potential of addiction-prevention education as a complementary strategy. Considering the vulnerability of university populations to disordered eating, such intervention programs may be viewed as increasingly crucial (Hudson et al., 2007).

Regarding technology addiction and its subdimensions—social media, instant messaging, online gaming, and internet usage—the data further support the existing evidence on the addictive nature of digital environments (Kuss & Griffiths, 2011; Billieux et al., 2015). In this context, the present study provides additional evidence consistent with the effectiveness of addiction prevention courses in mitigating technology-related dependencies.

Conclusion and Recommendations

In conclusion, the findings indicate that the Addiction Prevention course was associated with significant reductions in technology addiction subdimensions, online shopping addiction, and disordered eating symptoms. These results provide further support for the premise that psychoeducational and awareness-raising programs can serve as effective tools in the broader effort to combat behavioral addictions.

Several limitations should be noted for this research. Primarily, the sample consisted only of students from a single university's Faculty of Education, which may restrict the generalizability of the conclusions. It is suggested that future studies involve more diverse and larger samples across different institutions to provide a broader evaluation of the findings.

Another limitation is that the scales employed relied on self-reported data. Such data may be influenced by social desirability or other biases, potentially affecting the validity of the results. Although the overall reliability of the TAS scale is high (.87), low internal consistency in certain subscales suggests that digital dependency concepts may be evolving to reflect the more integrated use of social media and messaging platforms in the post-pandemic period. Future research is encouraged to employ additional data collection techniques, such as observational methods and qualitative approaches.

Third, only short-term effects were examined in this study. Follow-up studies are needed to investigate the long-term effects of the Addiction Prevention course. Such longitudinal assessments could offer a more complete understanding of the program's sustainable impact.

Finally, individual differences in the process of coping with addiction were not taken into account. Factors such as personality traits, psychological resilience, and social support systems play important roles in managing addiction. Additionally, differences were noted between the experimental and control groups in terms of academic departments, as the experimental group consisted largely of counseling psychology

students. Future research should explore the influence of individual differences and include participants from a variety of academic fields.

Despite these limitations, this study makes an important contribution by highlighting the effects of psychoeducational programs in combating addiction. It is recommended that future addiction prevention programs be further developed and adapted to different age groups and cultural contexts.

Ethical Approval: All research procedures were carried out following the ethical standards set forth in the Declaration of Helsinki, and approval for the study was secured from the Artvin Çoruh University Scientific Research and Publication Ethics Committee (approval granted at the meeting dated 9 October 2024, application no: E-18457941-050.99-152744).

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References

Andreassen, C. S., Griffiths, M. D., Pallesen, S., Bilder, R. M., Torsheim, T., & Aboujaoude, E. (2015). The Bergen Shopping Addiction Scale: Reliability and validity of a brief screening test. *Frontiers in Psychology*, 6, 1374. https://doi.org/10.3389/fpsyg.2015.01374

Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2016). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors*, 64, 287-293. https://doi.org/10.1016/j.addbeh.2016.03.006

Anjani, K. R. D., Dantes, N., & Dwiarwati, K. A. (2024). Effectiveness of behavioral counseling services self-management techniques to reduce social media addiction in high school students. *Bisma the Journal of Counseling*, *8*(1), 43-48. https://doi.org/10.23887/bisma.v8i1.81624

Avci, D., Gündoğdu, N. A., Dönmez, R. H., & Avci, F. E. (2023). Students as teachers: Effect of the peer education model on reducing smartphone addiction in adolescents. *Health Education Research*, *38*(2), 107-118.

Aydın, F. (2017). *Students' views on the problems caused by technology addiction in the classroom environment.* Master's thesis, Ankara University, Ankara.

Billieux, J., Philippot, P., Schmid, C., Maurage, P., De Mol, J., & Van der Linden, M. (2015). Is dysfunctional use of the mobile phone a behavioural addiction? Confronting symptom-based versus process-based approaches. *Clinical Psychology & Psychotherapy, 22*(5), 460-468. https://doi.org/10.1002/cpp.1910

Berber Çelik, Ç. (2016). An educational intervention in reducing the propensity for Internet addiction. *Addicta: The Turkish Journal on Addictions*, 3, 365–386.

Black, D. W. (2007). A review of compulsive buying disorder. *World Psychiatry*, *6(*1), 14-18.

Büyüköztürk, Ş. (2018). *Data analysis handbook for social sciences.* Ankara: Pegem Academy.

Cengiz, B., & Gürkan, K. P. (2025). Can awareness programs reduce technology addiction during the Covid-19 pandemic? A quasi-experimental study. *Journal of Health Care and Rehabilitation, 4*(1), 29-44.

Colder Carras, M., Aljuboori, D., Shi, J., Date, M., Karkoub, F., … & Thrul, J. (2024). Prevention and health promotion interventions for young people in the context of digital well-being: Rapid systematic review. *Journal of Medical Internet Research*, *26*, e59968. https://doi.org/10.2196/59968

Davis, C. (2013). Compulsive overeating as an addictive behavior: Overlap between food addiction and binge eating disorder. *Current Obesity Reports, 2*(2), 171-178. https://doi.org/10.1007/s13679-013-0049-8

Dicle, A. N. (2018). The effect of internet addiction prevention psycho-education program on university students. *Journal of Academic Social Research, 6*(85), 271-284. https://doi.org/10.16992/ASOS.14540

Ding, K., & Li, H. (2023). Digital addiction intervention for children and adolescents: A scoping review. *International Journal of Environmental Research and Public Health*, *20*(6), 4777. https://doi.org/10.3390/ijerph20064777

Dittmar, H. (2005). Compulsive buying–a growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology*, *96*(4), 467-491.

Esin, K., & Ayyıldız, F. (2022). Validity and reliability of the Turkish version of the Eating Disorder Examination Questionnaire (EDE-Q-13): short-form of EDE-Q. *Journal of Eating Disorders*, *10*(1), 102. https://doi.org/10.1186/s40337-022-00628-4

Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: Interview or self-report questionnaire? *International Journal of Eating Disorders*, *16*(4), 363-370.

Fairburn, C. G., & Harrison, P. J. (2003). Risk factors for anorexia nervosa. *The Lancet*, *361*(9372), 1914.

Gearhardt, A. N., Corbin, W. R., & Brownell, K. D. (2009). Food addiction: An examination of the diagnostic criteria for dependence. *Journal of Addiction Medicine*, *3*(1), 1-7.

Gentile, D. A., Choo, H., Liau, A., Sim, T., Li, D., Fung, D., & Khoo, A. (2011). Pathological video game use among youths: A two-year longitudinal study. *Pediatrics*, *127*(2), e319-e329. https://doi.org/10.1542/peds.2010-1353

Griffiths, M. D. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use*, *10*(4), 191-197. https://doi.org/10.1080/14659890500114359

Huang, H., & Leung, L. (2009). Instant messaging addiction among teenagers in China: Shyness, alienation, and academic performance decrement. *CyberPsychology & Behavior*, *12*(6), 675-679. https://doi.org/10.1089=cpb.2009.0060

Hudson, J. I., Hiripi, E., Pope Jr, H. G., & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. *Biological Psychiatry*, *61*(3), 348-358. https://doi.org/10.1016/j.biopsych.2006.03.040

Hübel, C., Abdulkadir, M., Herle, M., Loos, R. J. F., Breen, G., Bulik, C. M., & Micali, N. (2021). One size does not fit all. Genomics differentiates among anorexia nervosa, bulimia nervosa, and binge-eating disorder. *The International Journal of Eating Disorders, 54*(5), 785–793. https://doi.org/10.1002/eat.23481

Karasar, N. (2009). *Scientific research method.* Ankara: Nobel Press House.

Karhulahti, V. M., Martončik, M., & Adamkovič, M. (2023). Measuring internet gaming disorder and gaming disorder: A qualitative content validity analysis of validated scales. *Assessment, 30*(2), 402-413. https://doi.org/10.1177/10731911211055435

Kukar-Kinney, M., Ridgway, N. M., & Monroe, K. B. (2009). The relationship between consumers' tendencies to buy compulsively and their motivations to shop and buy on the internet. *Journal of Retailing*, *85*(3), 298-307. https://doi.org/10.1016/j.jretai.2009.05.002

Kuss, D. J. (2013). Internet gaming addiction: Current perspectives. *Psychology Research and Behavior Management*, 125-137. https://doi.org/10.2147/PRBM.S39476

Kuss, D. J., & Griffiths, M. D. (2011). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health and Addiction*, *10*(2), 278-296. https://doi.org/10.1007/s11469-011-9318-5

Kuss, D. J., & Lopez-Fernandez, O. (2016). Internet addiction and problematic internet use: A systematic review of clinical research. *World Journal of Psychiatry*, *6*(1), 143-176. https://doi.org/10.5498%2Fwjp.v6.i1.143

Levine, M. P., & Smolak, L. (2002). Body image development in adolescence. *Body Image: A Handbook of Theory, Research, and Clinical Practice*, 74-82.

Levine, M. P., & Smolak, L. (2006). *The prevention of eating problems and eating disorders: Theory, research, and practice.* Lawrence Erlbaum Associates.

Liu, Q. X., Fang, X.Y., Yan, N., et al. (2015). Multi-family group therapy for adolescent Internet addiction: Exploring the underlying mechanisms. *Addictive Behaviors*, 42, 1–8. https://doi.org/10.1016/j.addbeh.2014.10.021

Lu, P., Qiu, J., Huang, S., Wang, X., Han, S., Zhu, S., ... & Yuan, Y. (2025). Interventions for digital addiction: Umbrella review of meta-analyses. *Journal of Medical Internet Research*, *27*, e59656. https://doi.org/10.2196/59656

Manwong, M., Lohsoonthorn, V., Booranasuksakul, T., & Chaikoolvatana, A. (2018). Effects of a group activity-based motivational enhancement therapy program on social media addictive behaviors among junior high school students in Thailand: a cluster randomized trial. *Psychology Research and Behavior Management*, 329-339. https://doi.org/10.2147/PRBM.S168869

Marlatt, G. A., Baer, J. S., Donovan, D. M., & Kivlahan, D. R. (1988). Addictive behaviors: Etiology and treatment. *Annual Review of Psychology*, *39*(1), 223-252.

Müller, A., Joshi, M., & Thomas, T. A. (2022). Excessive shopping on the internet: Recent trends in compulsive buying-shopping disorder. *Current Opinion in Behavioral Sciences*, *44*, 101116. https://doi.org/10.1016/j.cobeha.2022.101116

Neumark-Sztainer, D., Wall, M., Story, M., & Sherwood, N. E. (2009). Five-year longitudinal predictive factors for disordered eating in a population-based sample of overweight adolescents: Implications for prevention and treatment. *International Journal of Eating Disorders*, *42*(7), 664-672. https://doi.org/10.1002/eat.20733

Park, J. J., King, D. L., Wilkinson-Meyers, L., & Rodda, S. N. (2022). Content and effectiveness of web-based treatments for online behavioral addictions: Systematic review. *JMIR Mental Health*, *9*(9), e36662. https://doi.org/10.2196/36662

Pellegrino, A., Stasi, A., & Bhatiasevi, V. (2022). Research trends in social media addiction and problematic social media use: A bibliometric analysis. *Frontiers in Psychiatry*, *13*, 1017506. https://doi.org/10.3389/fpsyt.2022.1017506

Pérez-Vázquez, J., González-Roz, A., & Amigo-Vázquez, I. (2024). Effectiveness of an e-health quasi-randomized controlled universal prevention program for eating disorders in Spanish adolescents. *Journal of Prevention*, *45*(1), 87-105. https://doi.org/10.1007/s10935-023-00751-1

Rose, S., & Dhandayudham, A. (2014). Towards an understanding of Internet-based problem shopping behaviour: The concept of online shopping addiction and its proposed predictors. *Journal of Behavioral Addictions*, *3*(2), 83-89. https://doi.org/10.1556/JBA.3.2014.003

Stice, E., Marti, C. N., & Rohde, P. (2013). Prevalence, incidence, impairment, and course of the proposed DSM-5 eating disorder diagnoses in an 8-year prospective community study of young women. *Journal of Abnormal Psychology*, *122*(2), 445.https://doi.org/10.1037%2Fa0030679

Sun, Y., & Zhang, Y. (2021). A review of theories and models applied in studies of social media addiction and implications for future research. *Addictive Behaviors*, 114, 106699.https://doi.org/10.1016/j.addbeh.2020.106699

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). *Using multivariate statistics* (Vol. 6, pp. 497-516). Boston, MA: Pearson.

Treasure, J., Claudino, A. M., & Zucker, N. (2010). Eat disorders. *Lancet*, *375*(9714), 583-593. Retrieved from http://search.proquest.com/docview/199059169?accountid=87314

Yılmaz, T., İkiz, G., & Avcı, F. M. (2022). Investigation of the Turkish psychometric properties of the Online Shopping Addiction Scale. *Journal of Addiction*, *23*(2), 205-215. https://doi.org/10.51982/bagimli.985782

Valdez, D., & Patterson, M. S. (2022). Computational analyses identify addiction help-seeking behaviors on the social networking website Reddit: Insights into online social interactions and addiction support communities. *PLOS Digital Health*, *1*(11), e0000143. https://doi.org/10.1371/journal.pdig.0000143

Vanderkruik, R., Gist, D., & Dimidjian, S. (2020). Preventing eating disorders in young women: An RCT and mixed-methods evaluation of the peer-delivered Body Project. *Journal of Consulting and Clinical Psychology*, *88*(12), 1105-1118. https://doi.org/10.1037/ccp0000609

Watson, H. J., Goodman, E. L., McLagan, N. B., Joyce, T., French, E., Willan, V., & Egan, S. J. (2017). Quality of randomized controlled trials in eating disorder prevention. *International Journal of Eating Disorders*, *50*(5), 459-470. https://doi.org/10.1002/eat.22712

Young, K. S. (2009). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, *1*(3), 237-244. Retrieved from https://netaddiction.com/articles/newdisorder.pdf

Zhao, H., Tian, W., & Xin, T. (2017). The development and validation of the online shopping addiction scale. *Frontiers in Psychology*, 8, 735. https://doi.org/10.3389/fpsyg.2017.00735