



The Effect of Cognitive-Behavioural Approach-Based Psychoeducation Program on Social Media Addiction

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ABSTRACT

This study aims to examine the effect of the psychoeducation program developed based on the Cognitive-Behavioural Approach (CBA) on the social media addiction levels of adolescents. The study involves the use of a quasi-experimental design with study group, in which pre-test, post-test, and follow-up studies were performed. The study group consists of 24 (12 experimental and 12 control) secondary school students selected from three different high schools and determined through random assignment. The experimental group received the psychoeducation program consisting of nine sessions and no action was taken for the control group. Personal Information Form (PIF) and Social Media Addiction Scale (SMAS) were used in the study as data collection tools. A pre-test two weeks before the application of the psychoeducation program, a post-test at the end of the application, and a follow-up test three months after the end of the application were performed among adolescents in the experimental group. Statistical analyses revealed that there was a significant decrease in the social media addiction scores of the adolescents in the experimental group. In line with these results obtained from the study, it is possible to say that the psychoeducation program applied to adolescents in reducing social media addiction is effective in obtaining successful results in this process.

Keywords:

Social media addiction, cognitive-behavioural approach

1. Introduction

The rapid development of technology today allowed both the development speed and diversity of communication tools to increase. The characteristic of easy and quick access to information and to other people in any part of the world has made the internet to become more preferred in comparison among communication tools. As a result of the replacement of web 1.0 technology, where the content can only be read by the user, which refers to one-way communication, with web 2.0 technology that offers mutual interaction and enables interpersonal communication, people have started to search for new internet environments today (Argın, 2013). Such developments have led to the emergence of new platforms called social media and have led internet users to spend more time on social media.

The results of the survey conducted by the Turkish Statistical Institute (TurkStat) in 2021 demonstrated that 92.0% of the households in Türkiye have access to the internet from home and 98.7% of the individuals have a mobile phone/smartphone. Internet use was found as 82.6% in the 16-74 age group and 82.7% in the 6-15 age group. The use of mobile phones/smartphones by children is 64.4% (TurkStat, 2021). The "Digital in 2021" report published jointly by Hootsuite and We Are Social indicated that there are 4.55 billion active social media users (57.6% of the world's population) with an increase of 9.9% around the world and that there are 60 million active social media users in Türkiye (70.8% of Türkiye's population) (We Are Social, 2011). As a result, it is

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understood that having become one of the most important means of communication, the internet is widely used and its use is mostly for social media purposes.

The diversity of social media platforms attracts the attention of people of all age groups, from children to adults. However, they are used more widely, especially among adolescents, as they are more easily accepted and approved, easily included in a group, and have the opportunity to reflect on these platforms as they wish due to the search for an ideal identity. Studies conducted in recent years show that adolescents use social media frequently in particular (Akyazı & Tutgun Ünal, 2013; Güney & Taştepe, 2020; Köroğlu & Tutgun Ünal, 2013; Usluel & Mazman, 2009; Vural & Bat, 2010).

Excessive use of social media has entered the field of interest of researchers due to the fact that the use of social media is very intense around the world and in our country, even becoming an indispensable part of daily life. Hence, it has caused social media addiction to be brought to the agenda (Tutgun Ünal, 2015). The domestic literature shows that studies on internet addiction are concentrated, and studies on social media addiction are mostly carried out with the participation of university students and adults (Bedir, 2016; Demir Türkođan, 2019; Demircan et al., 2022; Dođan, 2021; Kaya, 2018; Şahin & Yađcı, 2017; Şeker, 2018; Tutgun Ünal, 2015; Yılmazsoy & Kahraman, 2017). Experimental studies are necessary in order to identify social media addiction, which affects adolescents physically, socially and psychologically, as well as to prevent, reduce and treat it.

It can be seen that internet addiction, which is thought to be a similar concept to social media addiction in terms of symptoms, effects and treatment, is mostly treated using Cognitive-Behavioural Therapy in the domestic and international literature (Canođulları Ayazseven, 2019; Davis, 2001; Du et al., 2015; Khazaaal et al., 2012; Taş; 2015; Young, 1999; 2007; Zhang et al., 2020). From this point of view, it can be said that psychoeducational programs prepared based on the CBA, whose effect has been tested on internet addiction, which is a similar concept to social media addiction, will also fulfil a critical function in terms of improving and protecting the mental health of adolescents on social media addiction. It is seen that there are very few experimental studies on social media addiction in the literature and these studies are applied to university students (Durar, 2022; Hou et al., 2019), but it appears that no experimental studies have been conducted on adolescents. Zhou et al. (2021) Cognitive Behavioral Therapy-based short-term abstinence intervention was conducted for problematic social media use. Therefore, in consideration of the above-mentioned issues, in this study, it is possible to say that it is important and necessary to prepare and implement the psychoeducational program based on the CBA to reduce adolescents' social media addictions.

2. Methodology

2.1. Research Model

The psychoeducation program developed based on the CBA was a quasi-experimental study to examine the effectiveness of adolescents on social media addictions. Consisting of a pre-test, post-test and follow-up study with study group, the quasi-experimental design was one of the experimental designs frequently used in the field of psychology and education (Büyükoztürk, 2019). The overlook of the design used in the study is shown in Table 1.

Table 1. Research Design

Groups	Pre-Test	Process	Post-Test	Follow-up
Experimental	PIF, SMAS	Psychoeducation Program Based on Cognitive-Behavioural Approach (9 sessions)	SMAS	SMAS
Control	PIF, SMAS	No Action	SMAS	SMAS

As seen in Table 1, the PIF and the SMAS were administered as a pre-test to the students in the study group two weeks before the psychoeducation application. The reason why there was a two-week period between the pre-test application and the application of the psychoeducation program is that students should not have a long time to have behavioural changes towards social media addiction. Following the 9-week implementation of the cognitive behavioural approach-based psychoeducation program to the students in the experimental group, SMAS was re-administered to the students in both groups as a post-test right after the practices were over. In the follow-up study, three months after the post-test study, SMAS was applied once again to the students in the study group, and then statistical analyzes were made.

In the study, quantitative data obtained through the measurement tools were used. In addition, the study has one independent and one dependent variable. The independent variable of the study is the Cognitive-Behavioural Approach-Based Psychoeducation Program. The dependent variable of the study, on the other hand, was the social media addiction level of adolescents.

2.2. Study Group

The study group consists of 24 volunteer secondary school students selected through convenient sampling from three different high schools in Turhal, Tokat. In order to determine the students to be selected for the study group, the PIF and SMAS was applied by the researcher to a total of 540 students studying in the 10th and 11th grades of various high schools. In the course of the determination of the students, the 12th graders were not included in the study because they were preparing for the YKS exam, and the 9th grades were considered to be in the process of adapting to the school. Just before the scale application, the students were informed and it was also stated that the data obtained from this application would be used in scientific studies. As a result of 4 incompletely filled forms, the forms of 536 students in total, 322 girls and 214 boys, were evaluated.

For the formation of the study group, the scores of the students on the SMAS were calculated and ranked from high to low. Accordingly, the lowest score obtained from the SMAS is 24 and the highest score is 120. 24 students who scored 90 and above in SMAS were randomly assigned to form the study group, and study group, each consisting of 12 people, were created as a result. Frequency distributions of the study group according to gender and grade level variables are given in Table 2 and Table 3.

Table 2. *Descriptive Statistics of Groups by Gender*

Group	Girls		Boys		Total	
	n	%	n	%	n	%
Experimental	7	58.3	5	41.7	12	100
Control	8	66.7	4	33.3	12	100

Table 3. *Descriptive Statistics of Groups by Grade Level*

Group	Grade 10		Grade 11		Total	
	n	%	n	%	n	%
Experimental	6	50	6	50	12	100
Control	6	50	6	50	12	100

As seen in Table 2, 58.3% of the experimental group participating in the psychoeducation program consisted of female students and 41.7% of male students, while 66.7% of the control group consisted of female students and 33.3% of male students. A total of 15 female and 9 male students participated in the study. The values in Table 2 show that the study group has a balanced distribution in terms of gender. As seen in Table 3, 50% of the experimental group participating in the psychoeducation program consisted of 10th-grade students and 50% of 11th-grade students, while 50% of the control group consisted of 10th-grade and 50% of 11th-grade students. In total, 12 10th-grade students and 12 11th-grade students participated in the study. In Table 3, it is seen that the study group exhibit an equal distribution in terms of grade level.

In the examination of the answers given to the items in the personal information form, it was concluded through answers that in the control group 8.3% of students used social media for 0-1 year, 25% of them for 2-3 years, 41.7 of them for 4-5 years and 25% of them used social media for 6 years or more and in the control group, 8.3% of them used social media for 0-1 years, 25% of them for 2-3 years, 50% of them for 4-5 years, and 16.7% of them for 6 or more years. The examination of the frequency of social media usage indicated that 8.3% of the experimental group used social media once a day, 91.7% more than once a day, and the whole control group used social media more than once a day. Looking at the answers in terms of the average time they spend on social media per day, it was observed that 33.3% of the experimental group spent 2-3 hours, 58.3% of them spent 4-5 hours and 8.3% of them spent 6 or more hours and that 50% of the control group spent 2-3 hours, 16.7% spent 4-5 hours and 33.3% spent 6 or more hours. In order to understand the equivalence of the groups

formed before the experimental procedure, the Independent Samples t-Test was applied to the pre-test scores of the study group, and the findings are presented in Table 4.

Table 4. Comparison of the Pretest Scores of the Experimental Group and the Pretest Scores of the Control Group through the Independent Samples t-Test

Total Scale and Sub-Dimensions	Groups	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Total Scale	Experimental	12	102.58	8.66	22	.97	.344
	Control	12	99.50	6.86			
Deprivation	Experimental	12	63.17	4.39	22	1.26	.223
	Control	12	61.17	3.35			
IDL/ Lack of control	Experimental	12	39.42	6.35	22	.47	.644
	Control	12	38.33	4.87			

Note: IDL: Impact on Daily Life, $p > .05$

As seen in Table 4, there is no significant difference between the total score of the scale and the mean scores of the sub-dimensions scores of the scale of the adolescents in the study group. Obtained results show that both groups are equivalent. Finally, permission was requested from the parents of 24 students selected for the study group to participate in the study. In addition, parental permission petitions were received from the families for the psychoeducation practice that their children would attend. In this case, a psychoeducation program was implemented to reduce adolescents' social media addiction and safe internet use.

2.3. Data Collection Tools

Personal Information Form: The form was prepared by the researcher to identify the demographic characteristics such as gender, grade level of the students who wanted to participate in the psychoeducation program. In addition, the form includes questions about learning students' use of social media. Some of these questions included "Are you a member of any social network?", "What is your frequency of use of social media?", "For what purpose do you use social media the most?".

Social Media Addiction Scale (SMAS): The SMAS was developed by Firat & Barut (2018) to measure the social media addiction levels of adolescents. Scale; it consists of items such as "I spend more and more time on social media", "When I wake up, the first thing I check is my social media accounts", "Because of social media, I cannot finish my work/homework on time". The scale consists of 24 items of five-point likert type. As a result of the exploratory factor analysis performed in the validity study of the scale, two factors of the scale were determined. The rate of variance explained by the eigenvalue of the first factor is 12.545% and the rate of variance of it is 44.805%, the eigenvalue of the second factor is 1.848%, and the variance rate of it is 6.600%. The total variance rate obtained was 51.405%. It was also determined that all items had acceptable values (the lowest item load value was 0.483, and the highest item load value was 0.767) in the factor in which they were included. As a result of the confirmatory factor analysis, the following values were obtained: $\chi^2=469.858$, $df=249$, $\chi^2/df=1.89$, $p=0.00$, and the general concordance coefficients of the measurement model were found to be $GFI=.90$, $CFI=.93$, $TLI=.92$, $RMSEA=.052$ and $SRMR=0,047$. As a result of the analysis, a 24-item scale was obtained.

In the context of validity studies, the Internet Addiction Scale (IAS), which was adapted by Bayraktar (2001), was used to determine the criterion validity of SMAS. According to the Pearson Product-Moment Correlation analysis, it was determined that there was a positive and significant relationship (.675; $p < .000$) between the deprivation sub-dimension of SMAS and IDI, a positive significant relationship (.768; $p < .000$) between the sub-dimension of impact on daily life/lack of control and IDI, and finally, a significant positive correlation (.781; $p < .000$) between the total score of SMAS and IDI. All these results are found to be in the expected direction and support the criterion validity of SMAS. In the context of reliability analysis, the internal consistency reliability within the scale's sub-dimensions and the total was calculated with the Cronbach's alpha coefficient (α), and it was determined as .93 for the total scale, .90 for the deprivation sub-dimension, and .86 for the impact on daily life/lack of control sub-dimension. All these obtained values show that the internal consistency of the SMAS is high. As a final process, the continuity coefficient as a reliability coefficient was examined through the test-retest method. In this context, the scale form was applied to a group of 50 people twice, three weeks apart. At the end of the application, Pearson product-moment correlation coefficient was calculated in order to determine the stability between the pre-test and post-test scores. As a result of the analysis, a

statistically positive and significant relationship was observed between the sub-dimensions of the scale and the values found for the whole scale. This indicates that the scale shows consistent results as a result of different applications and therefore it is reliable in terms of continuity coefficient.

2.4. Psychoeducation Program Based on Cognitive Behavioral Approach

The Cognitive Behavioral Approach-Based Psychoeducation Program was created by the researcher, taking into account the principles of Cognitive Behavioral Therapy. In this program, which consists of 9 sessions, Young's (1999) study was based on the planning of the session activities. In addition to this, many resources were consulted in creating the theoretical infrastructure of the psychoeducation program and planning the warm-up and session activities (Kalkan & Kaygusuz, 2013; Kodaman & Dinç, 2016; Leahy, 2010; Voltan Acar, 2013). The general aim of this program is to help adolescents become aware of how social media addictions affect their lives, feelings and thoughts, to reduce this effect and to use their lives more efficiently. It is not functional to completely step away from social media as social media has become a part of our lives. Therefore, the psychoeducational program includes techniques that improve purposeful use and alternative activities.

The psychoeducation program was carried out with 10th and 11th grade students in 9 weeks, with sessions lasting approximately 90 minutes. In the sessions, techniques such as profit and loss analysis, rating scale, mental animation, relaxation and breathing exercise were used. Cognitive examinations and behavioral exercises were carried out in psychoeducation. In addition, homework assignments, which are frequently used in the cognitive-behavioral approach, are also included in order to reinforce the practices performed in the sessions. A summary of the psychoeducational sessions is presented below.

Table 5. *Psychoeducation Program Session Summary*

Session	Subject	Aim	Earnings	Material
1	Meeting, Creating Group Rules, Meaning	Introducing group members and leaders to each other, establishing group rules	Group members get to know each other, learn about the program and know the rules, and group motivation is created.	Name badge, pen, paper, pin, ball of string
2	Social Media and Its Effect on Daily Life	Being aware of the time they spend on social media and determining their purposes for using social media	Realize the positive and negative effects of social media use on their lives	Addiction loop (presentation), cartoon, paper, pencil.
3	The Relationship Between Emotion-Thought-Behavior	Understanding the relationship between emotion-thought-behavior, learning to breathe correctly and using it in daily life	Recognizes that different people may exhibit different emotions, thoughts and behaviors in the face of the same event	ABC Form, Elephant Story Form, paper, pencil
4	Developing Alternative Thoughts	Recognizing the role of unhealthy thoughts in initiating and increasing addiction	Becomes aware of the relationship between the thoughts that lead to social media addiction and reality	Presentation (Cognitive Distortions), Cartoon, Thoughts Versus Possible Facts Form, diary notebooks.
5	Creating a Behavior Change Program	Developing alternative behaviors instead of using social media	Gain awareness about the steps they can achieve in the use of social media	Pen, Paper, Presentation, reminder cards
6	Value of Time	Ability to create attainable goals for the future, learning relaxation techniques	Determines priorities in daily life, learns and applies relaxation techniques	Life Compass Form, pencil, two jars, walnuts, chickpeas, lentils, bulgur, two glasses of water
7	Healthy Communication	Learning about the elements of healthy communication	Gains healthy communication skills	Presentation on the theme of communication, pictures of dependent individuals
8	Safe Internet Use	Learn about Safe Internet Use	Be aware of the impact of social media on privacy	Paper, Pen, "Sharing" Form, video on safe internet use.
9	Termination	Making evaluations of their own development during the process	Recognizes own developments in the process	My Personal Goals Form, My Thoughts on the Work Done Form

2.5. Procedure

The article was written considering the principles of research and publication ethics. For this first, the ethics committee's permission for the present study was received. For this research, from Ondokuz Mayıs University Ethics committee approval was obtained. And the data tools were distributed in accordance with the principles of voluntariness.

2.6. Analysis of Data

SPSS 23 package program was used in the analysis of the study data. It was examined whether the pre-test, post-test and follow-up measurements of the study group showed normal distribution. In the Shapiro-Wilks analysis, a value of $\alpha > .05$ was obtained for each group and measurement. Therefore, in line with the results obtained, it is possible to say that all groups and each measurement exhibit a normal distribution. Thus, it was decided to test the study hypotheses through parametric test analysis. Finally, permission was requested from the parents of 24 students selected for the study group to participate in the study, and families were informed about the application to be made. In addition, parental permission petitions were received from the families for the psychoeducation practice that their children would attend.

2.7. Ethical

Ethical approval was obtained from Ondokuz Mayıs University Ethics committee with the date of 21.12.2018 and number 2018/335.

3. Findings

Hypothesis 1: The social media addiction post-test scores of the cognitive-behavioural approach-based psychoeducation program experimental group were significantly lower than the pre-test scores, and this difference is carried over to the follow-up measurements.

In line with the hypothesis, three separate measurements were taken from the experimental group, namely the pre-test, post-test and follow-up test, and One-Way ANOVA was performed for the difference between the measurements. Table 6 shows the arithmetic mean and standard deviations of the measurements of the experimental group. Table 7 shows the results of the One-Way ANOVA performed on the data to determine whether the difference between the arithmetic means is significant or not.

Table 6. Arithmetic Mean and Standard Deviation Values of Pre-Test, Post-Test and Follow-up Measurements of the Experimental Group SMAS Total Scores

Scale and Sub-Dimensions	Measurement	M	SD	n
Total Scale	Pre-Test	102.58	8.66	12
	Post-Test	55.67	15.07	12
	Follow-up	58.00	10.93	12

Table 7. One-Way ANOVA Results for Pre-Test, Post-Test and Follow-Up Test of the Experimental Group SMAS Total Scores

Variance Origin	SS	df	MS	F	p	Post Hoc
Within Groups	2816.083	11	256.008			
Measurement	16777.167	2	8388.583	101.428	.000	Pre-test - post-test; pre-test - follow-up
Error	1819.500	22	82.705			
Total	21412.75	35				

$p < .001$

As can be seen in Table 6, there are differences between the arithmetic mean values of the experimental group for the pre-test, post-test and follow-up measurements. With the purpose of determining whether the difference between the measurements was significant, a One-Way ANOVA was performed and the analysis results indicated that there was a significant difference between the scores obtained from the total scale [$F(2,22) = 101.43, p < .001$].

The arithmetic means obtained as a result of the measurements demonstrate that there is a significant decrease in the post-test mean score ($M = 55.67$) and the follow-up test mean score ($M = 58.00$) compared to the pre-test mean score ($M = 102.58$). However, no significant difference is observed between the post-test and follow-up test scores. In other words, the findings show that the social media addiction levels of the students in the experimental group decreased significantly from the pre-test measurement to the post-test measurement and that the results do not differ in the follow-up measurements, meaning that the effect of the psychoeducation program continues.

One-Way ANOVA for Repeated Measurements was conducted for the sub-dimensions of the SMAS, deprivation and impact on daily life/lack of control. Analysis results in the deprivation sub-dimension indicate that there is a significant difference between the scores obtained from the deprivation sub-dimension [$F(2,22)=89.10, p<.001$]. The arithmetic means obtained as a result of the measurements demonstrate that there is a significant decrease in the post-test mean score ($M=34.92$) and the follow-up test mean score ($M=38.00$) compared to the pre-test mean score ($M=63.17$). However, no significant difference is observed between the post-test and follow-up test scores. Analysis results in the sub-dimension of impact on daily life/lack of control indicate that there is a significant difference between the scores obtained from the sub-dimension of impact on daily life/lack of control [$F(2,22)=66.41, p<.001$]. The arithmetic means obtained as a result of the measurements demonstrate that there is a significant decrease in the post-test mean score ($M=20.75$) and the follow-up test mean score ($M=19.83$) compared to the pre-test mean score ($M=39.42$). However, no significant difference is observed between the post-test and follow-up test scores. In other words, the findings show that the deprivation and impact on daily life/lack of control levels of the students in the experimental group decreased significantly from the pre-test measurements to the post-test measurements and that the results do not differ in the follow-up measurements, meaning that the effect of the psychoeducation program continues.

Hypothesis 2: There is no significant difference between the social media addiction pre-test, post-test and follow-up measurement scores of the cognitive-behavioural approach-based psychoeducation program control group.

In line with the hypothesis, three separate measurements were taken from the control group, namely the pre-test, post-test and follow-up test, and a One-Way ANOVA was performed for the difference between the measurements. Table 8 shows the arithmetic mean and standard deviations of the measurements of the control group.

Table 8. Arithmetic Mean and Standard Deviation Values of Pre-Test, Post-Test and Follow-up Measurements of the Control Group SMAS Total Scores

Scale and Sub-Dimensions	Measurement	M	SD	n
Total Scale	Pre-Test	99.50	6.86	12
	Post-Test	93.17	10.70	12
	Follow-up	91.92	12.43	12

Table 9. One-Way ANOVA Results for Pre-Test, Post-Test and Follow-Up Test of the Control Group SMAS Total Scores

Variance Origin	SS	df	MS	F	p	Post Hoc
Within Groups	2262.972	11	205.725	3.030	.069	No Significant Difference
Measurement	334.056	2	167.028			
Error	1212.611	22	55.119			
Total	3809.639	35				

$p<.001$

The results in Table 9 indicate that there is no significant difference between the pre-test, post-test and follow-up measurements performed on the control group [$F(2,22)=3.03, p<.001$]. In other words, the process did not cause a significant change on the total scale scores of the control group. Similar results were obtained in the analyzes made for the sub-dimensions of deprivation and impact on daily life. The results in the deprivation sub-dimension indicate that there is no significant difference between the pre-test, post-test and follow-up measurements performed on the control group [$F(2,22)=3.38, p<.001$]. In other words, the process did not cause a significant change on the deprivation sub-dimension scores of the control group. The results in the impact on daily life/lack of control sub-dimension indicate that there is no significant difference between the pre-test, post-test and follow-up measurements performed on the control group [$F(2,22)=3.38, p<.001$]. In other words, the process did not cause a significant change on the impact on daily life/lack of control sub-dimension scores of the control group.

Hypothesis 3: Social media addiction level post-test scores of the cognitive-behavioural approach-based psychoeducational program experimental group were significantly lower than the control group's social media addiction post-test scores.

Table 10 demonstrates that the results of the Independent Samples t-Test Analysis performed with the purpose of determining whether the differences between the arithmetic mean and standard deviation values of the social media addiction levels of the study group and the arithmetic means are statistically significant.

Table 10. *t-Test Analysis Results for Independent Samples t-Test for Comparison of Social Media Addiction Level Post-Test Scores of Study Group*

Total Scale and Sub-Dimensions	Groups	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Total Scale	Experimental	12	55.67	15.07	22	7.03	.000
	Control	12	93.17	10.70			

$p < .001$

The examination of the Table 10 indicates that there is a significant difference between the social media addiction level post-test measurement scores of the individuals in the study group ($p < .001$). The examination of the mean scores of the students from the scale indicates that there is a significant difference in favour of the experimental group. As a result, it is understood that the social media addiction level post-test scores of the experimental group were significantly lower than the control group.

The Unrelated Samples t-Test Analysis was performed with the purpose of determining whether the differences between the arithmetic mean and standard deviation values of the post-test measurements on the deprivation sub-dimension of the study group and the arithmetic means are statistically significant. The results of the analysis show that there is a significant difference between the post-test measurement scores of the deprivation sub-dimension of the individuals in the study group ($p < .001$). The examination of the mean scores of the students from the scale indicates that there is a significant difference in favour of the experimental group. As a result, it is understood that the deprivation sub-dimension post-test scores of the experimental group were significantly lower than the control group.

The results of the Unrelated Samples t-Test Analysis conducted on the sub-dimension of impact on daily life/lack of control indicate that there is a significant difference between the post-test measurement scores of the individuals in the study group of the sub-dimension of impact on daily life/lack of control ($p < .001$). The examination of the mean scores of the students from the scale indicates that there is a significant difference in favour of the experimental group. As a result, it is understood that the impact on daily life/lack of control sub-dimension post-test scores of the experimental group were significantly lower than the control group.

Follow-up measurements were made 90 days following the implementation of the psychoeducation program. In order to test whether there is a difference between the study group according to both the total scale and sub-dimensions in the follow-up test, the t-Test Analysis for Unrelated Samples was performed on the data. Table 11 demonstrates that the results of the analysis performed with the purpose of determining whether the differences between the arithmetic mean and standard deviation values of the follow-up test measurements on the social media addiction levels of the study group and the arithmetic means are statistically significant.

Table 11. *t-Test Analysis Results for Unrelated Samples for Comparison of Social Media Addiction Level Follow-up Test Scores of Study Group*

Total Scale and Sub-Dimensions	Groups	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Total Scale	Experimental	12	58.00	10.93	22	7.31	.000
	Control	12	92.92	12.43			

$p < .001$

The examination of Table 11 shows that there is a significant difference between the social media addiction level follow-up test arithmetic mean of the study group ($p < .001$). The examination of the mean scores of the students from the scale indicates that there is a significant difference in favour of the experimental group. As a result, the data obtained from the follow-up measurements show that the social media addiction follow-up test measurement scores of the experimental group are lower than the control group.

Table 12 demonstrates that the results of the Unrelated Samples t-Test Analysis performed with the purpose of determining whether the differences between the arithmetic mean and standard deviation values of the follow-up test measurements on the deprivation sub-dimension of the study group and the arithmetic means are statistically significant.

Table 12. *t-Test Analysis Results for Unrelated Samples for Comparison of Deprivation Sub-dimension Follow-up Test Measurement Scores of Study Group*

Total Scale and Sub-Dimensions	Groups	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Deprivation	Experimental	12	38.00	6.77	22	6.74	.000
	Control	12	56.75	6.85			

$p < .001$

The examination of Table 12 shows that there is a significant difference between the follow-up test measurement scores of the deprivation sub-dimension of the individuals in the study group ($p < .001$). The examination of the mean scores of the students from the scale indicates that there is a significant difference in favour of the experimental group. As a result, it is understood that the deprivation sub-dimension follow-up test scores of the experimental group were significantly lower than the control group.

Table 13 shows that the results of the Unrelated Samples t-Test Analysis performed to determine whether the differences between the arithmetic mean and standard deviation values of the follow-up test measurements of the impact on daily life/lack of control sub-dimension of the study group and the arithmetic means are statistically significant.

Table 13. *t-Test Analysis Results for Unrelated Samples for Comparison of Impact on Daily Life/lack of control Sub-dimension Follow-up Test Measurement Scores of Study Group*

Total Scale and Sub-Dimensions	Groups	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Impact on Daily Life/ Lack of control	Experimental	12	19.83	5.20	22	6.65	.000
	Control	12	36.25	6.78			

$p < .001$

The examination of Table 13 shows that there is a significant difference between the follow-up test measurement scores of the impact on daily life/lack of control sub-dimension of the individuals in the study group ($p < .001$). The examination of the mean scores of the students from the scale indicates that there is a significant difference in favour of the experimental group. As a result, it is understood that the impact on daily life/lack of control sub-dimension follow-up test scores of the experimental group were significantly lower than the control group.

4. Discussion and Conclusion

As a result of the study, significant findings were obtained that support the hypotheses claiming the effectiveness of the psychoeducation program. A significant decrease was observed in the social media addiction level scores of the participants in the experimental group, that is, in the total scale scores and post-test scores, compared to the pre-test scores, and it was determined that this decrease was also maintained in the follow-up measurements. Likewise, a significant decrease was observed in the post-test scores of the experimental group participants in the social media addiction scale's deprivation and impact on daily life/lack of control sub-dimensions compared to the pre-test scores, and this decrease was maintained in the follow-up measurements. On the other hand, as a result of the analysis made through the pre-test, post-test and follow-up measurements of the control group, it was observed that there was no significant difference between these measurements.

Another significant finding that reveals the effectiveness of the psychoeducation program based on the CBA is the statistically significant differences between the post-test scores of the study group. There is no significant difference between the pre-test mean scores of the study group, however, there is a significant difference between the post-test mean scores. Finally, as a result of the analyzes made for the comparison of the follow-up scores of the study group under the title of other analyzes, it was determined that there was a significant difference between the follow-up test measurements of the study group.

Based on all these results, it is possible to say that the psychoeducational program based on the CBA has a reducing effect on the social media addiction levels of adolescents and the sub-dimensions of the social media addiction scale, namely deprivation and impact on daily life/uncontrol. In addition, the fact that the effect obtained was independent of the interaction of time with learning/depersonalization and maturation due to

the pre-test shows that the effectiveness of the psychoeducation program based on the CBA on social media addiction and its sub-dimensions occurs regardless of any factor.

Social media causes an increase in the number of users day by day through the opportunities it offers to people, and makes it more intensively used around the world and in our country. At this point, with the excessive use of social media, social media addiction is a current concept that has become the focus of attention of researchers. However, the examination of the literature showed that there are a little number of studies on adolescents on this subject in our country yet (Büyükgebiz, 2018; Deniz & Gürültü, 2018; Doğrusever, 2021; Göksu, 2019; İlğaz, 2018; Şireli Bingöl & Çolak, 2023; Tutgun Ünal, 2015; Yılman, 2020). Likewise, very few psychoeducation studies have been encountered in the literature to reduce and prevent social media addiction (Durar, 2022; Hou et al., 2019; Zhou et al., 2021).

Durar (2022) investigated the effect of cognitive behavioral approach-based psychoeducation program on social media addiction and self-control in university students. As a result of the psychoeducation practice consisting of 9 sessions; it was determined that there was a significant decrease in the social media addiction scores of the students in the experimental group, and a significant increase in their self-control scores. Hou et al. (2019) applied a cognitive-behavioral-based intervention approach to reduce social media addiction in university students. They found that this practice reduces the time university students spend on social media use and prolongs the time spent studying outside of school. Zhou et al. (2021), a short-term withdrawal intervention program based on cognitive behavioral therapy was implemented for problematic social media use. It was determined that the intervention program implemented in this study had a positive effect on the participants' social media use. After the applied program, it was observed that productivity, autonomy and offline real relationships increased in the participants. As mentioned above, it is seen that the studies conducted on social media addiction are mostly based on the relational research design. It is seen that there are very few experimental studies on social media addiction and these studies are applied to university students (Durar, 2022; Hou et al., 2019). But no experimental studies have been conducted on adolescents. Therefore, considering the above-mentioned issues, it is thought that the current study differs from other studies on social media addiction in that it is an experimental study to reduce adolescents' social media addiction.

There are psychoeducational programs for internet use and addiction that are closely related to social media (Bağatarhan & Siyez, 2022; Berber Çelik, 2016; Canoğulları Ayazseven, 2019; Erden & Hatun, 2015; Liu, Fang, Yan, Zhou, Yuan, Lan & Liu, 2015; Taş, 2015). Therefore, since social media addiction is considered as a kind of continuation of internet addiction, the results of studies on internet addiction are also included in this section. Erden & Hatun (2015) conducted a psychological counseling practice consisting of 7 sessions named "Use of CBA in Coping with Internet Addiction: A Case Report". As a result of the study, it was seen that the goal was achieved, which means that there was a decrease in the addiction level of the subject and that s/he made progress in healthy internet use behaviour. Albeit not a psychoeducational program, a group therapy for internet addiction was administered by Liu et al. (2015). In the study, group therapy was applied to both internet-addicted adolescents and their families. In the study, it was determined that there was a significant decrease in internet addiction in adolescents following 6 sessions of multiple therapy (for family and individual). A 10-session study was conducted by Taş (2015), inspired by the CBA and rational emotional approach, titled "The effect of the psychoeducation program on internet addiction in adolescents aimed at reducing psychological symptoms". As a result of the study, it was seen that the psycho-education program was effective in reducing psychological symptoms and internet addiction. A similar study was carried out by Canoğulları Ayazseven (2019). In the study titled "The Effect of Cognitive-behavioural Based Psychoeducation Study on Preventing Problematic Internet Use in Adolescents", 10 sessions of psychoeducation program were applied to adolescents and 3 sessions to their families. The common effect of the education given to both families and adolescents on students' problematic internet use was evaluated through qualitative and quantitative analysis methods. As a result of the analysis, it was seen that the study was effective in reducing problematic internet use by providing education to the family and the student together in preventing internet addiction.

All these results support the findings of the present study. It is thought that the results of studies on internet addiction, which is closely related to social media addiction and have similar effects with social media addiction, can be taken as a criterion for this study. As a result, in this study, it was seen that the

psychoeducation program based on the CBA applied to the experimental group showed a significant difference in the social media addiction and its sub-dimensions of deprivation and impact on daily life/lack of control levels of the adolescents compared to the control group.

4.1. Recommendations

The findings obtained from the study revealed that the psychoeducation program based on the CBA is effective in reducing the social media addiction levels of individuals in adolescence. The strengths of the study are that the adolescents in the study group were selected from different types of high schools, and that positive results were repeated in the follow-up measurement, as well as communicating with the families of the adolescents in the experimental group. However, as in any study, this study also has limitations. First of all, the social media addiction levels of the adolescents participating in the research were limited by the scores they got from the Social Media Addiction Scale. Another limitation is that the research includes secondary school 10th and 11th grade students in the study group. Therefore, the research findings can be generalized primarily to the study group and students with similar characteristics. Based on these limitations, recommendations for practice and study are given below.

Suggestions for Practitioner: It was seen that the CBA based psychoeducation program developed in this study is a program with proven effectiveness, especially in secondary education institutions. Therefore, it is thought that it would be beneficial to use the program as a preventive program (within the scope of preventive guidance services) against social media addiction, which threatens the psycho-social development of adolescents.

The adolescence period is a very challenging period for individuals as they both undergo changes in many aspects and require them to make significant decisions about themselves. In such a process, social media addiction can negatively affect the adolescent physically, socially, psychologically, and academically. For this reason, it is thought that the implementation of this program, especially in secondary education institutions, can make the adolescence period, which is the transition period of individuals, more healthy.

Academic subjects such as choosing a field, preparing for university exams and choosing a profession have an important place in the lives of secondary school students in the study group. Therefore, future goals were included in one session of the psychoeducation program. During the practice, it was observed that the students had difficulties in setting short, medium, and long-term goals. For this reason, it is recommended to plan the sessions on vocational guidance well and make a pilot practice.

It is possible that the results from this study depend on the characteristics of the participants, practitioner, or setting. For this reason, it is recommended to be applied to different participants in different settings outside the school (such as psychiatry clinic, doctor's office) or by different practitioners.

Suggestions for Researchers: The applicability of the psychoeducational study to reduce social media addiction developed within the scope of this study and applied to 10th and 11th-grade students in secondary education can be extended by making necessary arrangements for its application in other grade levels or other education levels in secondary education and by testing its effectiveness with experimental research. In this study, follow-up measurements were carried out three months after the program was completed. In future studies, follow-up measurements can be made at different periodic times in order to see the effectiveness and permanence of the study over time.

It is important for families to be appropriate role models for their children from a very young age on the healthy and correct use of social media. For this reason, it is thought that the effectiveness and permanence of the program can be increased by giving more place to the action of becoming a role model suitable for family education in reducing addiction in future studies. In addition, family-adolescent communication and family support can be increased by organizing joint sessions where adolescents and families can be together to reduce the social media addiction levels of adolescents.

In the study, the psychoeducational study aimed at reducing social media addiction was carried out on the group who had the highest scores on the Social Media Addiction Scale, volunteered for the study, and did not have any psychiatric diagnosis in terms of mental health. The psychoeducational study aimed at reducing social media addiction, which was applied in the study, can be applied to a group with any psychiatric

diagnosis, as well as social media-addicted individuals, to see whether it has an effect on students' social media use.

In the study, it was examined to what extent the psychoeducation program aimed at reducing social media addiction affected the social media addiction and deprivation and impact on daily life/lack of control sub-dimensions of students. In future studies, the effects of the Psychoeducation Program for Reducing Social Media Addiction on variables such as loneliness, communication skills, and academic success related to social media addiction can also be tested.

5. References

- Akyazı, E. & Tutgun Ünal, A. (2013). İletişim fakültesi öğrencilerinin amaç, benimseme, yalnızlık düzeyi ilişkisi bağlamında sosyal ağları kullanımı. *Global Media Journal TR*, 3(6), 1-24.
- Bağatarhan, T & Siyez, D. M. (2022). The effectiveness of a cognitive-behavioral prevention program for internet addiction. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 40(4), 767-792. [10.1007/s10942-021-00439-7](https://doi.org/10.1007/s10942-021-00439-7)
- Bayraktar, F. (2001). *İnternet kullanımının ergen gelişimindeki rolü* [Yüksek lisans tezi]. Ege Üniversitesi, İzmir.
- Bedir, A. (2016). *Sosyal medya kullanımının üniversite öğrencilerinin akademik başarılarına ve tutumlarına etkisi* [Yüksek lisans tezi]. Atatürk Üniversitesi, Erzurum.
- Berber Çelik, Ç. (2016). İnternet bağımlılığı eğilimini azaltmada eğitsel bir müdahale. *Addicta: The Turkish Journal on Addictions*, 3, 365-386. [DOI 10.15805/addicta.2016.3.0021](https://doi.org/10.15805/addicta.2016.3.0021)
- Büyükgebiz, E. (2018). *Sosyal medya bağımlılığının öğrencilerin performanslarına etkileri üzerine bir uygulama* [Doktora Tezi]. Süleyman Demirel Üniversitesi, Isparta.
- Büyüköztürk, Ş. (2019). *Sosyal bilimler için veri analizi el kitabı* (25. bs.). Pegem.
- Canoğulları Ayazseven, Ö. (2019). *Ergenlerde problemli internet kullanımını önlemeye yönelik bilişsel-davranışçı temelli psikoeğitim çalışmasının etkisi* [Doktora Tezi]. Çukurova Üniversitesi, Adana.
- Davis, R. A. (2001). A cognitive-behavioral model for pathological internet use (PIU). *Computers in Human Behavior*, 17(2), 187-195. [https://doi.org/10.1016/S0747-5632\(00\)00041-8](https://doi.org/10.1016/S0747-5632(00)00041-8)
- Demir Türkdoğan, R. (2019). *Sosyal medya bağımlılığı ve gençlik: Cumhuriyet Üniversitesi örneği* [Yüksek lisans tezi]. Erciyes Üniversitesi, Kayseri.
- Demircan, Ü., Işık, M. & Gürhan, N. (2022). Üniversite öğrencilerinde sosyal medya bağımlılığı ve siber zorbalık. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*, 11(2), 596-609. <https://doi.org/10.37989/gumussagbil.889889>
- Deniz, L. & Gürültü, E. (2018). Lise öğrencilerinin sosyal medya bağımlılıkları. *Kastamonu Education Journal*, 26(2), 355-367. <https://doi.org/10.24106/kefdergi.389780>
- Doğan, M. V. (2021). *Üniversite öğrencilerinde sosyal medya bağımlılığı belirtilerinin ve sosyal medya bağımlılığı ile depresyon arasındaki ilişkinin incelenmesi* [Yüksek lisans tezi]. İstanbul Gelişim Üniversitesi, İstanbul.
- Doğrusever, C. (2021). Ergenlerin sosyal medya bağımlılık düzeylerinin bazı sosyo demografik değişkenler açısından incelenmesi. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 21(1), 23-42. <https://doi.org/10.18037/ausbd.902542>
- Du Y. S, Jiang W & Vance A. (2010). Longer term effect of randomized, controlled group cognitive behavioural therapy for Internet addiction in adolescent students in Shanghai. *Australian and New Zealand Journal of Psychiatry*, 44 (2),129-134. <https://doi.org/10.3109/00048670903282725>
- Durar, E. (2023). *Sağlık eğitimi alan üniversite öğrencilerinde bilişsel davranışçı yaklaşım temelli psikoeğitim programının sosyal medya bağımlılığı ve öz kontrol üzerine etkisi* [Doktora Tezi]. Kaflas Üniversitesi, Kars.
- Erden, S. ve Hatun, O. (2015). İnternet bağımlılığı ile başa çıkmada bilişsel davranışçı yaklaşımın kullanılması: bir olgu sunumu. *Addicta: The Turkish Journal on Addiction*, 2(1), 53-83. [DOI 10.15805/addicta.2015.2.1.015](https://doi.org/10.15805/addicta.2015.2.1.015)

- Fırat, N. & Barut, Y. (2018). Sosyal medya bağımlılığı ölçeği (SMBÖ)'nin geliştirilmesi: geçerlik ve güvenilirlik çalışması. *International Journal of Human Science*, 15(4), 2458-9489. <http://orcid.org/0000-0002-6685-8734>.
- Göksu, H. (2019). *Ergenlerin sosyal medya bağımlılığının akademik başarılarıyla ilişkisi ve çeşitli değişkenler açısından incelenmesi*. [Yüksek lisans tezi]. Afyon Kocatepe Üniversitesi, Afyon.
- Güney, M. & Taştepe, T. (2020). Ergenlerde sosyal medya kullanımı ve sosyal medya bağımlılığı. *Ankara Sağlık Bilimleri Dergisi (ASBD)*, 9(2), 183-190. DOI: <https://www.doi.org/10.46971/ausbid.757713>
- Hou Y., Xiong D., Jiang T., Song L., & Wang Q. (2019). Social media addiction: Its impact, mediation, and intervention. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 13 (1).
- Ilgaz, M. (2018). Sosyal medya bağımlılığı: lise ve üniversite öğrencileri üzerine bir araştırma. *Turkish Journal of Marketing*, 3(3), 238-257. DOI: [10.30685/tujom.v3i3.60](https://doi.org/10.30685/tujom.v3i3.60)
- Kalkan, M. & Kaygusuz, C. (2013). *İnternet bağımlılığı sorunlar ve çözümler*. Anı.
- Kaya, G. (2018). *Sosyal medya bağımlılığı ile internet kullanım amaçları arasındaki ilişki üzerine bir araştırma* [Yüksek lisans tezi]. Mersin Üniversitesi.
- Khazaal Y, Xirossavidou C, Khan R & Edel Y (2012). Cognitive behavioral treatments for “internet addiction”. *The Open Addiction Journal*, 5(1), 30-35. DOI: [10.2174/1874941001205010030](https://doi.org/10.2174/1874941001205010030)
- Kodaman, U. & Dinç, M. (2016). *Teknolojiye bağımlı yaşama*. Yeşilay TBM Alan Kitaplığı Dizisi No: 4, İstanbul.
- Köroğlu, O. ve Tutgun Ünal, A. (2013). *Öğretmen adaylarının sosyal ağları benimseme düzeyleri ile yalnızlık düzeyleri arasındaki ilişki*. I. Ulusal Yeni Medya Kongresi (ISBN 978-605-62169-3-0), Kocaeli.
- Leahy, L. R. (2010). *Bilişsel terapi yöntemleri* (Çev. H. Türkçapar ve E. Köroğlu). HYB Yayıncılık.
- Liu, Q. X., Fang, X. Y., Yan, N., Zhou, Z. X., Yuan, X. J., Lan, J. & Liu, C. Y. (2015). Multi-family group therapy for adolescent internet addiction: exploring the underlying mechanisms. *Addictive Behaviors*, 42, (1-8). DOI: [10.1016/j.addbeh.2014.10.021](https://doi.org/10.1016/j.addbeh.2014.10.021)
- Şahin, C. & Yağcı, M. (2017). Sosyal medya bağımlılığı ölçeği-yetişkin formu: geçerlilik ve güvenilirlik çalışması. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD)*, 18(1), 523-53.
- Şeker, V. T. (2018). *Sosyal medya bağımlılığı ile depresyon ve anksiyete arasındaki ilişki* [Yüksek lisans tezi]. Beykent Üniversitesi, İstanbul.
- Şireli Bingöl, Ö. & Çolak, M. (2023). Ergenlerde sosyal medya bağımlılığı ve psikopatoloji ile ilişkisi. *Turk J Child Adolesc Ment Health*, 30(1), 28-33. DOI: [10.4274/tjcamh.galenos.2021.46320](https://doi.org/10.4274/tjcamh.galenos.2021.46320)
- Taş, İ. (2015). *Psikolojik belirtileri azaltmaya yönelik psikoeğitim programının ergenlerde internet bağımlılığına etkisi* [Doktora tezi]. Sakarya Üniversitesi.
- Tutgun Ünal, A. (2015). *Sosyal medya bağımlılığı: üniversite öğrencileri üzerine bir araştırma* [Doktora tezi]. Marmara Üniversitesi, İstanbul.
- Türkiye İstatistik Kurumu (TÜİK), (2021). *Girişimlerde bilişim teknolojileri kullanımı araştırması, Hanehalkı bilişim teknolojileri kullanım araştırması*. Erişim adresi: <http://www.tuik.gov.tr/UstMenu.do?metod=temelist>
- Usluel, Y. K. & Mazman, S. G. (2009). Sosyal ağların benimsenmesi ölçeği. *Eğitim Bilimleri ve Uygulama*, 8(15), 139-160.
- Voltan Acar, N. (2013). *Grupla psikolojik danışmada alıştırmalar-deneyler*. Nobel.
- Vural, Z. B. ve Bat, M. (2010). Yeni bir iletişim ortamı olarak sosyal medya: Ege Üniversitesi iletişim fakültesine yönelik bir araştırma. *Journal of Yaşar University*, 20(5), 3348-3382. doi: [10.19168/jyu.65130](https://doi.org/10.19168/jyu.65130)
- Yılman, M. A. (2020). *Lise öğrencilerinde sosyal medya bağımlılığının çeşitli değişkenler açısından incelenmesi* [Yüksek lisans tezi]. Çaç Üniversitesi, Mersin.
- Yılmazsoy, B. & Kahraman, M. (2017). Üniversite öğrencilerinin sosyal medya bağımlılığı ile sosyal medyayı eğitsel amaçlı kullanımları arasındaki ilişkinin incelenmesi: facebook örneği. *Journal of Instructional Technologies ve Teacher Education*, 6(1), 9-20.

- Young, K. S. (1999). *Internet addiction: symptoms, evaluation and treatment*. Innovations in Clinical Practice, Vol. 7.
- Young, K. S. (2007). Cognitive behavior therapy with internet addicts: Treatment outcomes and implications. *Cyberpsychology & Behavior*, 10:671–679. <https://doi.org/10.1089/cpb.2007.9971>
- Zhang, Y. Y., Chen, J. J., Ye, H. & Volantin, L. (2020). Psychological effects of cognitive behavioral therapy on internet addiction in adolescents: a systematic review protocol. *Medicine* 99, e18456. <https://doi.org/10.1097/MD.00000000000018456>
- Zhou X., Rau PLP., Yang CL., & Zhou X. (2021). Cognitive behavioral therapy-based short-term abstinence intervention for problematic social media use: Improved well-being and underlying mechanisms. *Psychiatric Quarterly*, 92(2), 761-779.