

# Research on The Effectiveness of Psychological Counseling Programs on Internet Addiction of Individuals Via Positive Psychology - Positive Psychotherapy-Oriented Group

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## ABSTRACT

This research aims to examine the effectiveness of the Psychological Counseling Program via Positive Psychology – Positive Psychotherapy Oriented Group, developed by the researcher, on individuals' internet addiction levels, emotional intelligence, and happiness enhancement strategies. The hybrid test method was used in the research process. The experimental and control groups are the first factors in the model used. The second factor is the preliminary test, the final test, and the follow-up research. A total of 24 undergraduate students participated in the research, including 12 students in the experimental group and 12 students in the control group. The independent variable of the research is the Psychological Counseling Program with Positive Psychology and Positive Psychotherapy Oriented Group. The dependent variable of the research is the levels of "Internet Addiction," "Emotional Intelligence," and "Happiness Increasing Strategies" of the individuals participating in the study. Ethics committee approval was obtained from "Yıldız Technical University" for the study. The analysis of the data was carried out with the SPSS Statistical 26 version. It was carried out with the Two-Factor ANOVA Test for Mixed Measurements of whether there is a difference between the scale pre-test, post-test, and follow-up test scores of the students in the control or experimental group. Post Hoc Tests were used to specify differences between the groups. As a result of the research, it was concluded that the Positive Psychology – Positive Psychotherapy Oriented Group Psychological Counselling Program reduces individuals' technology addiction scores and increases emotional intelligence and happiness increasing strategies scores.

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### Keywords:

Positive psychology, positive psychotherapy, internet addiction, emotional intelligence, strategies to increase happiness

## INTRODUCTION

Technological developments have caused various changes in human life (İpşiroğlu & İpşiroğlu, 1993; Yaygın, 2010). Thanks to technology, people have become able to handle their daily roles and responsibilities easily (Çırak, 2020). In addition to its positive contributions to human life, technology has also had serious negative effects on the way of life. As a result of the continuous and intensive use of the internet and technological tools, the problem of technology- internet addiction has emerged (Eryılmaz & Deniz, 2021). Technology- internet addiction is defined as people spending excessive time with technological tools and as a result, their biological, psychological and social lives are negatively affected (Pantic, 2014). There may be many reasons for technology-internet addiction. The most common and most important reason is trying to cope with the negative emotions caused by unmet needs by avoiding them (Clark & Calleja, 2008).

There may be many reasons for technology-internet addiction. One of them is low level of emotional intelligence. The relationship between technology addiction and emotional intelligence has been revealed in different studies (Ateş, 2018; Beranuy et al., 2009; Cayhan, 2010; Parker et al., 2008; Reisoğlu, Gedik, & Göktaş, 2013; Tunç, 2020). As a result of the relevant studies, as emotional intelligence scores increase, that is, as people's ability to use emotional intelligence increases, a significant decrease in technology- internet addiction levels is observed. Considering these studies, the concept of emotional intelligence was included in the scope of the research.

Emotional intelligence is the ability to observe one's own emotions and the emotions of others and to recognize emotions. It is explained as the ability of individuals to fulfill the ability to use emotions to guide

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their thoughts and actions in the events and situations they encounter in life. Through emotional intelligence, individuals have the capacity to recognize and regulate both their own and others' emotions (Mayer & Solovey, 1990). Having a high capacity of emotional intelligence enables a person to lead a more productive life. In this way, positive emotions can emerge more. The most well-known positive emotion is happiness. There is a close relationship between the concept of happiness and emotional intelligence. This relationship has been revealed by researchers as a result of various studies (Akbaba, 2020; Altuntaş & Genç, 2020; Erdil, 2018; Schiffrin & Nelson, 2010; Terzi, 2006). As a result of the relevant research, a significant increase in the happiness levels of the individuals participating in the research was observed as their ability to use emotional intelligence increased. In other words, using emotional intelligence made people more happy.

Happiness is actually the experience of positive emotions. Human beings want to get away from negative emotions and reach positive emotions (Fordyce, 1983). Happiness is expressed as feeling pleasant or being satisfied in daily life (Allen & McCarthy, 2016). Within the scope of the research, it was tried to address the issue of strategies to increase happiness rather than what happiness is. In related studies, increasing happiness was evaluated in the context of happiness increasing strategies. Eryılmaz (2017) identified satisfying desires, fulfilling the requirements of religious belief, exhibiting behaviors directly aimed at happiness, mental control, resting the body, and reacting positively to the environment as happiness increasing strategies. The more the skills that individuals fulfill regarding the relevant sub-dimensions increase, the happier they feel in general. Various studies have revealed that there is a significant relationship between happiness increasing strategies and technology addiction (Agbaria, 2020; Bian & Leung, 2015; Gottfredson & Hirschi, 1990; Ha & Hwang, 2014; Jeong et al., 2015; Thome, et al., 2011; Yoo et al., 2014). Considering these relationships, the concept of happiness increasing strategies was preferred as the dependent variable in the study.

Positive psychology and positive psychotherapy approaches have been adopted to intervene in technology- internet addiction. The positive psychology approach is the movement that advocates positive-oriented mental health (Seligman, 2002). Psychotherapy approaches have mainly included pathology-based studies in the development process. With the developing and changing world, psychotherapy approaches that focus on people's abilities and strengths as well as their problems have been needed as an alternative to pathology-oriented approaches. One of these methods is the positive psychotherapy approach.

The positive psychotherapy approach was based on certain conceptual and systematic foundations by Peseschkian (2012). As emphasized in the name of positive psychotherapy, the main focus is on positive aspects. It is a psychotherapy model that emphasizes cross-cultural experiences, adopts analytical principles as a principle, and utilizes other theories with an eclectic approach (Eryılmaz, 2020). The preference of a therapy approach that emphasizes the positive and strong aspects of people, especially for intervention in the problem of technology addiction, which has a pathological dimension, was carried out by taking into account the lack of such a study in the literature and the areas of expertise of the researchers.

As a result, the aim of this study was to examine the effectiveness of a positive psychology and positive psychotherapy oriented group counseling program. It was aimed to eliminate the problem of technology addiction by increasing the emotional intelligence and happiness increasing strategies skills, which were found to be related to technology addiction as a result of the researches conducted and mentioned in the introduction. In this context, it is aimed to answer the following questions.

- Is the group counseling program effective on internet addiction scores?
- Is the group counseling program effective on emotional intelligence scores?
- Is the group counseling program effective on happiness increasing strategies scores?

It has been observed that there are few intervention programs for technology addiction, which has become one of the important problems of our age (Uzun & Deniz, 2023). As a result of the research, an important deficiency will be eliminated by introducing a group counseling program that is applicable to the relevant literature and has proven effectiveness.

## **METHOD**

### ***AIM AND METHODOLOGY OF THE RESEARCH***

This research aims to examine the effectiveness of the Psychological Counseling Program via Positive Psychology – Positive Psychotherapy Oriented Group, developed by the researcher, on individuals' internet addiction levels, emotional intelligence, and happiness increasing strategies. Considering the

objectives mentioned above of the research, a 2x3 hybrid test was used, including the experimental group, the control group, and the pre-test, post-test, and follow-up test. In the model used in this study, the first factor is the experimental group and the control group. The second factor is the pre-test, post-test, and follow-up study. These studies indicate repeated measurements (Büyüköztürk, 2020; Karasar, 2000).

The study's independent variable is the Positive Psychology, and Positive Psychotherapy Oriented Group Psychological Counseling Program applied to the experimental group between the pre-test and post-test measurements (Table 1). The dependent variable of the study is the levels of "Internet Addiction," "Emotional Intelligence," and "Happiness Increasing Strategies" of the individuals participating in the study.

**Table 1.** The design of the research

Group	1.Measurement		2. Measurement	3. Measurement
Experimental group	Pre-test	Experimental Process (Psychological Counseling Program via Positive Psychology – Positive Psychotherapy Oriented Group)	Post-test	Follow up test
Control group	Posttest	No process	Posttest	Follow up test

#### *Working Group*

The working group consists of individuals who are continuing their undergraduate studies at Yildiz Technical University and cannot control the use of technology. Within the scope of the research, there are 24 individuals in the experimental and control groups.

#### **DATA COLLECTION PROCESS**

First of all, ethics committee report and necessary permissions were obtained for the study. It was announced by the researcher that a group psychological counseling practice for technology - internet addiction would be conducted. The names of volunteer individuals were taken and they were returned one by one. Volunteer participants were informed about the aims of the study, data collection tools, and group counseling process. Then the data collection process was carried out. The data collection tools of the study are introduced in this section.

#### *Internet Addiction Test*

The measurement tool was named as "Internet Addiction Test" and adapted into Turkish by Çakır et al., (2008). There are 19 items in the measurement tool. In addition, the scale consists of three sub-dimensions. These are preferring being online to daily life, increasing the duration of being online, and problems arising from being online. As a result of the reliability studies, the reliability value of the measurement tool was determined as .90.

#### *Emotional Intelligence Scale Short Form*

It was developed by Petrides and Furnham (2000, 2001). Deniz et al., (2013) translated the Emotional Intelligence Trait Scale-Short Form (EIS-SF) into Turkish. The scale consists of 16 items. The measurement tool has four sub-dimensions. These are well-being, self-control, emotionality and sociability. The internal consistency and reliability coefficient calculated as a result of the analysis studies for the scale was found to be .81 for the whole scale. The test-retest reliability coefficient of the scale was found to be .86.

#### *Happiness Increasing Strategies Scale*

It was developed by Eryilmaz (2017). It consists of 28 items in total. The measurement tool has six sub-dimensions: reacting positively to the environment, resting the body, mental control, exhibiting behaviors directly aimed at happiness, fulfilling the requirements of religious belief, and satisfying desires.

As a result of the analysis, the explained variance of the measurement tool was found to be 61.932% and it was concluded that it was highly reliable.

**LIMITATIONS OF THE STUDY**

There are various limitations in the research. The first one is the sample group. The research is limited to a sample group of 24 people. The research is limited to the data that can be measured by the Internet Addiction Scale, Emotional Intelligence Scale and Happiness Increasing Strategies Scale. The research is limited to thirteen sessions of the "Positive Psychology and Positive Psychotherapy Group Counseling Program" applied to the experimental group. The follow-up study conducted two months after the last measurement within the scope of the research is limited to the measurements and was applied to the experimental and control groups.

**FINDINGS**

**RELIABILITY ANALYSES**

In the research, the Cronbach's Alpha Value of the Pre-, Post- and Follow-up Tests of the Internet Addiction Scale (IAS) - Emotional Intelligence Scale (EIS) - Happiness Increasing Strategies Scale (HISS) and its Sub-Dimensions is shown in Table 2. It is seen that the reliability of the Internet Addiction Scale (IAS) - Emotional Intelligence Scale (EIS) - Happiness Increasing Strategies Scale (HISS), and its sub-dimensions used in the study are sufficient (Pallant, 2020).

**Table 2.** Cronbach’s Alpha Value of the Internet Addiction Scale (IAS) -Emotional Intelligence Scale (EIS) - Happiness Increasing Strategies Scale (HISS) and its sub-dimensions belongs to pre-test, post-test, and tracking test

Scale and sub-dimensions	Cronbach's Alpha			N
	Pretest	Posttest	Follow up test	
Internet Addiction Scale (IAS)	0,979	0,938	0,988	19
Choosing to Be Online to Everyday Life	0,951	0,848	0,971	8
Request to Increase the Time of Being Online	0,945	0,848	0,971	7
Problems Caused by Being Online	0,928	0,783	0,948	4
Emotional Intelligence Scale (EIS)	0,966	0,974	0,994	20
Well-being	0,886	0,938	0,973	4
Self-control	0,913	0,944	0,982	4
Emotionality	0,912	0,966	0,977	4
Sociability	0,888	0,941	0,971	4
Happiness Increasing Strategies Scale (HISS)	0,921	0,989	0,993	28
Reacting Positively to the Environment	0,613	0,951	0,964	5
Resting The Body	0,665	0,929	0,962	5
Satisfying the Desires	0,741	0,910	0,950	4
Exhibiting Behaviors Directly Aimed at Happiness	0,802	0,948	0,970	5
Doing a Mental Check	0,716	0,947	0,962	5
To Fulfill the Requirement of Religious Belief	0,677	0,958	0,956	4

**Analysis of the Data**

The analysis of the data was carried out with the SPSS Statistical 26 version. Categorical variables of the students in control and experimental groups were given as numbers and percentages, and the chi-square test determined the distribution homogeneity of the demographic data of both groups. The normal

distribution of the numerical variables was found by calculating the skewness values. The skewness values of the Internet Addiction Scale – Emotional Intelligence Scale – Happiness Increasing Strategies Scale and its sub-dimensions belonging to the pre-test, post-test, and follow-up tests are given in Table 3. According to the rules of the normal distribution, the skewness values should be between  $\pm 1.5$  (Tabachnick and Fidel, 2013). It has been seen that the scale and its sub-dimensions used in this context comply with the normal distribution rules.

**Table 3.** Skewness Values of the Pre-test, Post-test, and Follow-up Tests of the Internet Addiction Scale - Emotional Intelligence Scale - Strategies for Increasing Happiness Scale and its Sub-Dimensions

Scale and sub-dimensions	Skewness					
	Pre-test		Post-test		Follow-up Test	
Internet Addiction Scale (IAS)	0,109	0,472	0,255	0,472	0,082	0,472
Choosing to Be Online to Everyday Life	0,236	0,472	0,02	0,472	0,071	0,472
Request to Increase the Time of Being Online	-0,022	0,472	0,26	0,472	0,032	0,472
Problems Caused by Being Online	0,104	0,472	0,714	0,472	0,137	0,472
Emotional Intelligence Scale (EIS)	0,003	0,472	0,002	0,472	0	0,472
Well-being	-0,283	0,472	0,029	0,472	-0,009	0,472
Self-control	0,109	0,472	0,088	0,472	-0,016	0,472
Emotionality	-0,012	0,472	0,037	0,472	-0,034	0,472
Sociability	0,167	0,472	-0,032	0,472	0,066	0,472
Happiness Increasing Strategies Scale (HISS)	-0,187	0,472	0,029	0,472	0,003	0,472
Reacting Positively to the Environment	-0,884	0,472	0,045	0,472	-0,002	0,472
Resting The Body	-0,693	0,472	0,142	0,472	-0,015	0,472
Satisfying the desires	-0,407	0,472	0,184	0,472	0,000	0,472
Exhibiting Behaviors	-0,57	0,472	0,023	0,472	0,036	0,472
Directly Aimed at Happiness						
Doing a Mental Check	-0,582	0,472	0,073	0,472	-0,017	0,472
To Fulfill the Requirement of Religious Belief	-0,882	0,472	0,088	0,472	-0,015	0,472

In the research, whether there is a difference in the descriptive information of the students in control and experimental groups was examined by the Chi-Square test. Two-Factor ANOVA Test for Mixed Measurements (Mixed Analysis of Variance Inter-Among Groups) was performed to understand whether there was a difference between the scores of the students in the control or experimental group, the scale pre-test, post-test, and follow-up tests. Post Hoc Tests were used to determine the differences between the groups. The significance levels of the whole study were carried out by considering the values of 0.05 and 0.01.

**Comparison of the Average Scores of Pre-tests, Post-test, and Follow Up Test Obtained from Internet Addiction of Students in Control and Experimental Groups**

The comparison of the average internet addiction scores of the students in control and experimental groups after the pre-test, post-test, and follow-up tests is shown in Table 4.

**Table 4.** Comparison of the Average Scores of Pre-test, Post-test, and Follow up Test Obtained from Internet Addiction of Students in Control and Experimental Groups

Group	Pretest <sup>A</sup>		Posttest <sup>B</sup>		Follow up test <sup>C</sup>		Total		<i>p</i> <sup>1</sup>	Difference	
	N	Avg.	S.D.	Avg	S.D.	Avg.	S.D.	Avg			S.D.
Control group	12	2,61	0,23	2,61	0,24	4,15	0,34	3,13	0,27	0,000**	A, B<C
Experimental group	12	4,15	0,32	1,73	0,15	1,74	0,16	2,54	0,21	0,000**	A>B, C
Total	24	3,38	0,83	2,17	0,49	2,95	1,26				

Measurement<sub>p2</sub>: 0.000\*\*, Group<sub>p2</sub>: 0.000\*\*, Time\*Group<sub>p2</sub>: 0.000\*\*

*Avg.*: Average, *S.D.*: Standart deviation, \**p*<0.05, \*\**p*<0.01,

*p*<sup>1</sup>: ANOVA Test for Repeated Measurements, *p*<sup>2</sup>: Mixed Analysis of Variance inter-among Groups

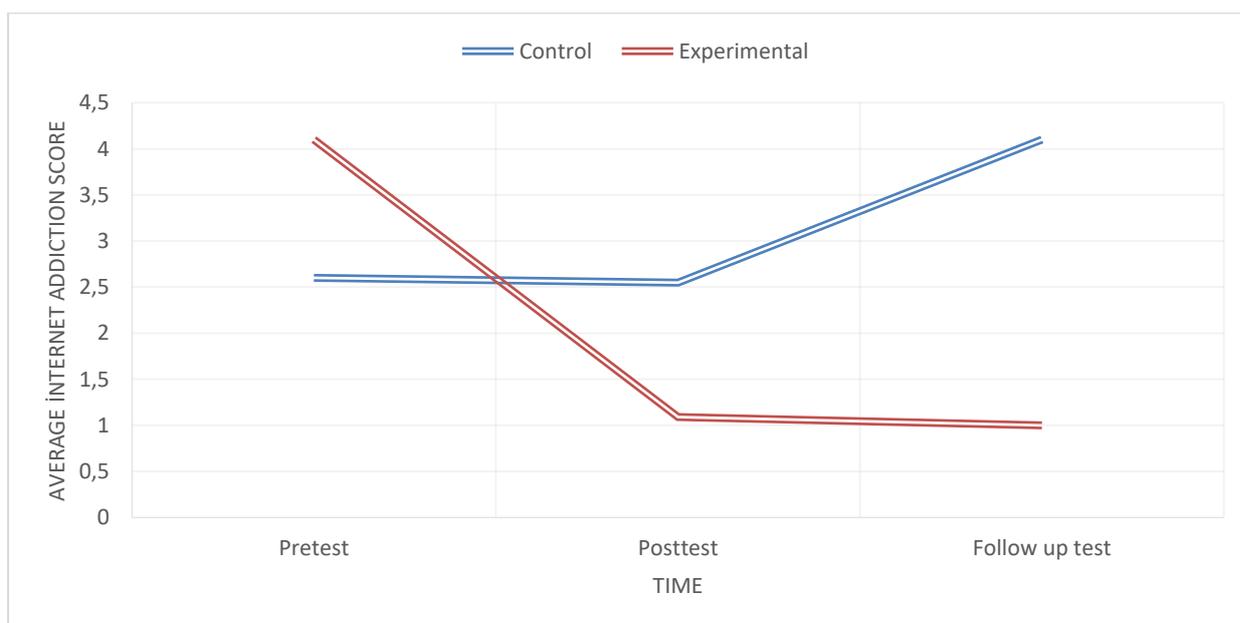
Total pre-, post- and follow up test difference: A>C>B

The average internet addiction score of the students in the control group was 3.13, and the average in the experimental group was 2.54. The difference between the average internet addiction test scores of these two groups was found to be significant (*p*<0.01)

It was found that the internet addiction test scores of the students showed a significant difference according to the measurements made at different times (*p*<0,01). The average score of the students on the pre-test internet addiction test is 3.38, the average score on the post-test internet addiction test is 2.17, and the average score on the follow-up test internet addiction test is 2.95. This finding shows that the measurements made at different times on the Internet addiction test scores of the students vary.

The change in the internet addiction scores of the students in the experimental and control groups after the pre-test, post-test, and follow-up tests were found to be significant (*p*<0.01). This finding shows that being in the control and the experimental group have and experimental groups have different effects on changing students' Internet addiction. However, this analysis gives the result of the changes in the internet addiction test scores of the research students before and after the experiment, without making a group distinction. Since it does not show which group the observed change occurs, the Analysis of Variance in Repeated Measurements test was used for each group (Control/Experiment). The change in the internet addiction scores of the students in the control group after the pre-test, post-test, and follow-up tests was found to be significant (*p*<0.01). The internet addiction test sfollow-up test scores of the students in the control group are high compared to the pre-test and post-test internet addiction test scores. The change in the internet addiction scores of the students in the experimental group after the pre-test, post-test, and follow-up tests was found to be significant (*p*<0.01). The internet addiction test pre-test scores of the students in the experimental group are high compared to the test scores of the post-test and the follow-up test.

The changes in the internet addiction scores of the students in the experimental and control groups after the pre-test, post-test, and follow-up tests are shown in Figure 1.



**Figure 1.** Changes in Internet Addiction Scores of Students in the Experimental and Control Groups After the Pre-test, Post-test, and Follow-up Tests

**Comparison of the Total Scores of the Pre-Test, Post-Test, and Follow-Up Tests Obtained from the Emotional Intelligence Scale of the Students in the Control and Experimental Groups**

The comparison of the total emotional intelligence scores of the students in control and experimental groups after the pre-test, post-test, and follow-up tests is shown in Table 5.

**Table 5.** Comparison of Emotional Intelligence Collection Scores of Students in Control and Experimental Groups After Pre-test, Post-test, and Follow-up Tests

Group	Pretest <sup>A</sup>		Posttest <sup>B</sup>		Follow up test <sup>C</sup>		Total		<i>p</i> <sup>1</sup>	Difference	
	N	Avg.	S.D.	Avg.	S.D.	Avg.	S.D.	Avg.			S.D.
Control group	12	77,00	6,19	77,00	5,88	44,67	6,14	66,22	6,07	<b>0,000**</b>	<b>A, B&gt;C</b>
Experimental group	12	47,17	6,04	115,9	5,82	120,0	6,12	94,36	6,00	<b>0,000**</b>	<b>C&gt;B&gt;A</b>
Total	24	62,08	16,3	96,46	20,68	82,33	38,94	80,29	25,33		

Measurement<sub>p2</sub>: 0.000\*\*, Group<sub>p2</sub>: 0.000\*\*, Time\*Group<sub>p2</sub>: 0.000\*\*

Avg.: Average, S.D.: Standart deviation, \**p*<0.05, \*\**p*<0.01,

*p*<sup>1</sup>: ANOVA Test for Repeated Measurements, *p*<sup>2</sup>: Mixed Analysis of Variance inter-among Groups

Total pre-, post- and follow up test difference: B>C>A

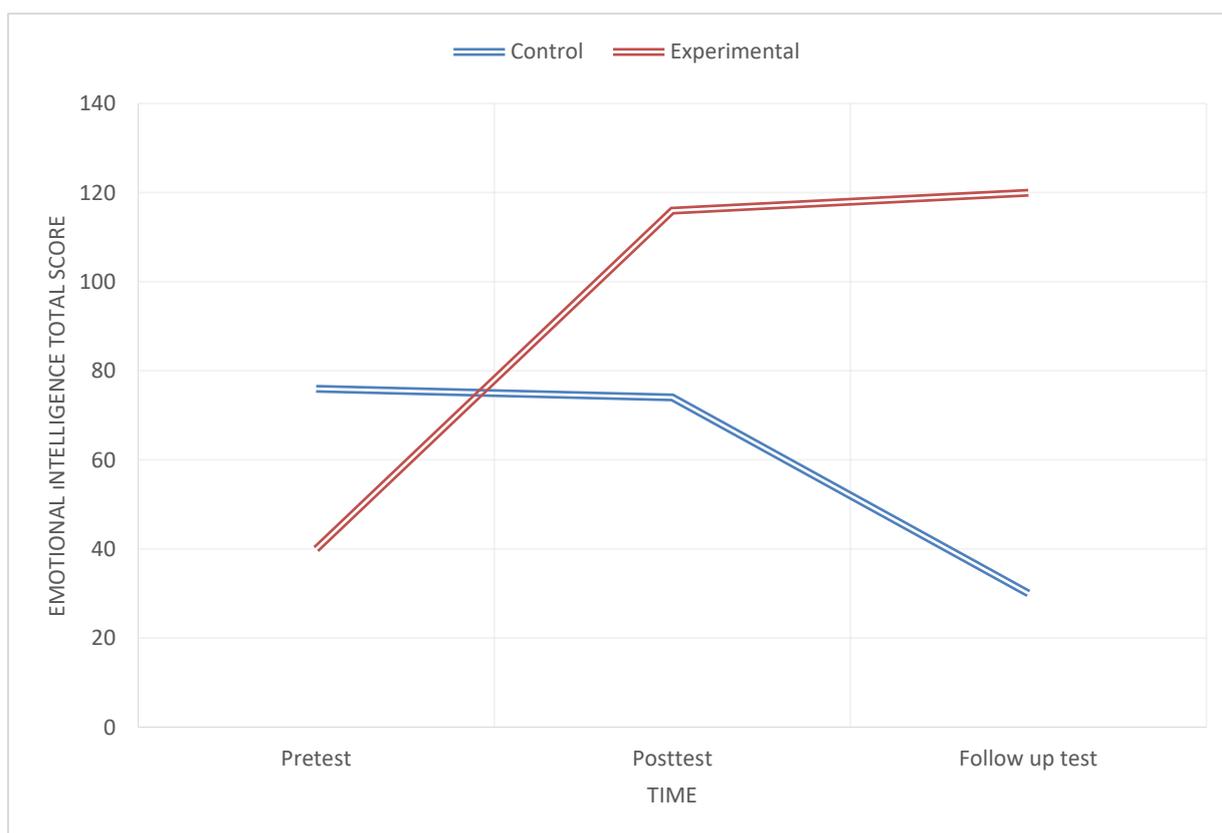
The total emotional intelligence score of the students in the control group was 66.22, and the total emotional intelligence score in the experimental group was 94.36. The difference between these two groups' emotional intelligence test scores was significant (*p*<0.01).

It was found that the emotional intelligence test scores of the students showed a significant difference according to the measurements made at different times (*p*<0.01). The average score of the students on the pre-test emotional intelligence test was 62.08, the average score of on the post-test emotional intelligence test was 96.46, and the average score on the follow-up test emotional intelligence test was 82.33. This finding shows that the measurements made at different times on the emotional intelligence test scores of the students showed a significant difference. The total emotional intelligence score obtained from the pre-

test increased in the post-test, and it was found that there was a partial decrease in the total emotional intelligence score after the follow-up test.

The change in the total emotional intelligence scores of the students in the experimental and control groups after the pre-test, post-test, and follow-up tests was found to be significant ( $p < 0.01$ ). This finding shows that being in the control and experimental groups have different effects on changing students' emotional intelligence. Since it does not show which group the observed change occurs, the Analysis of Variance in Repeated Measurements test was used for each group (Control/Experiment). The change in emotional intelligence scores of the students in the control group after the pre-test, post-test, and follow-up tests was significant ( $p < 0.01$ ). The emotional intelligence test follow-up test scores of the students in the control group are low compared to the pre-test and post-test emotional intelligence test scores. The change in the total emotional intelligence scores of the students in the experimental group after the pre-test, post-test, and follow-up tests was found to be significant ( $p < 0.01$ ). The total emotional intelligence test scores of the students in the experimental group showed an increase in the post-test according to the pre-test, and after the follow-up test according to the post-test.

The changes in the emotional intelligence scores of the students in the experimental and control groups after the pre-test, post-test, and follow-up tests are shown in Figure 2. It has been observed that there is an increase in the total emotional intelligence scores of the students in the control group in the follow-up test scores compared to the pre-test and post-test. In contrast to these findings, it was observed that there was an increase in post-test and follow-up test scores in the emotional intelligence total scores of the students in the experimental group compared to the pre-test score.



**Figure 2.** Changes in the Emotional Intelligence Total Scores of the Students in the Experimental and Control Groups After the Pre-test, Post-test, and Follow up Tests

#### **Comparison of the Average Scores of Pre-test, Post-test, and Follow-Up Tests Obtained from the Happiness Increasing Strategies Scale of Students in Control and Experimental Groups**

The comparison of the average scores of the students in the control and experimental groups on Happiness Increasing Strategies Scale after the pre-test, post-test, and follow-up tests is shown in Table 6.

**Table 6.** Comparison of the Average Scores of the Students in the Control and Experimental Groups on Strategies to Increase Happiness After the Pre-test, Post-test, and Follow-up Tests

Group	Pretest <sup>A</sup>		Posttest <sup>B</sup>		Follow up test <sup>C</sup>		Total		<i>p</i> <sup>1</sup>	<i>Fark</i>	
	N	Ort.	S.S.	Ort.	S.S.	Ort.	S.S.	Ort.			S.S.
Control group	12	2,55	0,14	2,57	0,14	1,99	0,21	2,37	0,16	<b>0,000**</b>	<b>A, B&gt;C</b>
Experimental group	12	1,94	0,24	4,39	0,19	4,41	0,21	3,58	0,21	<b>0,000**</b>	<b>A&lt;B, C</b>
Total	24	2,25	0,36	3,48	0,95	3,20	1,25	2,98	0,85		

Measurement<sub>p2</sub>: 0.000\*\*, Group<sub>p2</sub>: 0.000\*\*, Time\*Group<sub>p2</sub>: 0.000\*\*

*Avg.*: Average, *S.D*: Standart deviation, \**p*<0.05, \*\**p*<0.01,

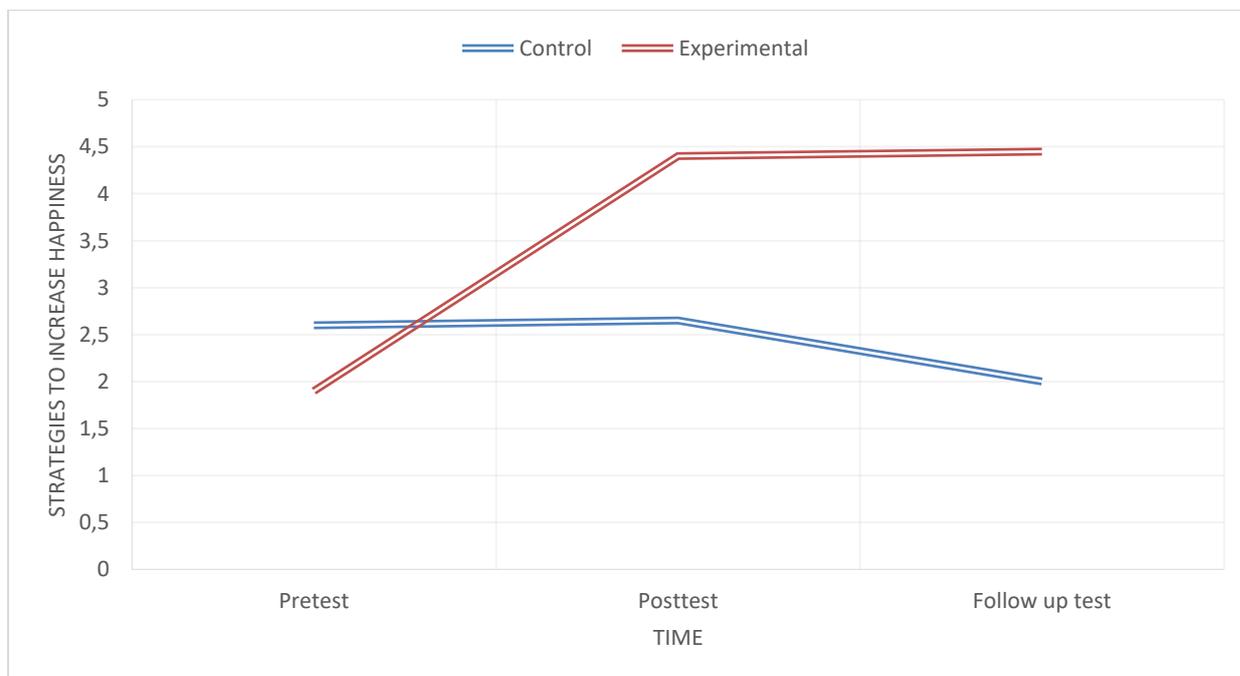
*ANOVA Test for Repeated Measurements, p*<sup>2</sup>: *Mixed Analysis of Variance for-between Groups Average pre-, post- and follow-up test difference: B>C>A*

The average score of the students in the control group on happiness increasing strategies scale is 2.37, and the average score of the students in the experimental group on strategies to increase happiness is 3.58. The difference between the mean scores of these two groups' happiness enhancement strategies test was significant (*p*<0.01). In other words, the fact that the students were in the control or experimental group led to a significant difference in their levels of happiness enhancement strategies.

It was found that students' happiness enhancement strategies test scores showed a significant difference according to measurements made at different times (*p*<0.01). The average score of the students on the pre-test happiness enhancement strategies test was 2.25, the average score on the post-test happiness increasing strategies test was 3.48, and the average score on the follow-up test happiness increasing strategies test was 3.20. This finding shows that the measurements made at different times on the students' happiness increasing strategies test scores showed a significant difference. In addition, the average score of strategies to increase happiness obtained from the pre-test increased in the final test, and it was found that there was a partial decrease in the average score of strategies to increase happiness after the follow-up test.

The change in the students' average scores in the experimental and control groups on strategies to increase happiness after the pre-test, post-test, and follow-up tests was found to be significant (*p*<0.01). In other words, the common effects of being in different processing groups and strategies of repeated measurements to increase happiness average scores are significant. This finding shows that being in the control and experimental groups has different effects on changing students' strategies for increasing happiness. However, this analysis gives the result of the changes in the happiness increasing strategies test scores of the students in the study before the experiment and after the experiment, without making group distinctions. Since it does not give in which group the observed change occurs, the Analysis of Variance in Repeated Measurements test was used for each group (Control/Experiment). The change in the happiness increasing strategies scores of the students in the control group after the pre-test, post-test, and follow-up tests was found to be significant (*p*<0.01). The happiness increasing strategies test follow-up test scores of the students in the control group are low; compared to the happiness increasing strategies test scores in the pre-test and post-test. The change in the students' average scores in the experimental group on strategies to increase happiness after the pre-test, post-test, and follow-up tests was found to be significant (*p*<0.01). Strategies of increasing the happiness of the students in the experimental group, the average scores of the post-test and follow-up tests showed an increase compared to the pre-test.

The changes in the happiness increasing strategies scores of the students in the experimental and control groups after the pre-test, post-test, and follow-up tests are shown in Figure 3. It was found that there was an increase in the average happiness increasing strategies scores of the students in the control group in the follow-up test scores compared to the pre-test and post-test. In contrast to these findings, it was observed that there was an increase in the post-test and follow-up test scores of the students in the experimental group in the average scores of strategies to increase happiness compared to the pre-test.



**Figure 3.** Changes in the Average Scores of the Experimental and Control Group Students' Strategies to Increase Happiness After Pre-test, Post-test, and Follow-up Tests

## RESULTS, DISCUSSION and SUGGESTIONS

The comparison of the study with other research results in the literature will be made in this section. The change in the Internet addiction scores of the students in the experimental and control groups after the pretest, posttest and follow-up test was found to be significant. The change in the internet addiction scores of the students in the control group after the pretest, posttest and follow-up test was found to be significant. The internet addiction test follow-up test scores of the students in the control group were higher than the pretest and posttest internet addiction test scores. The change in the internet addiction scores of the students in the experimental group after the pretest, posttest and follow-up test was found to be significant. The pretest internet addiction test scores of the students in the experimental group were higher than the posttest and follow-up test Internet addiction test scores. The results of the study show similar results with other studies on internet addiction. Jong- Un Kim (2008) conducted a reality therapy-based group counseling study. As a result of the group counseling study, students' computer and internet addiction rates decreased. Similarly, İskender (2013) created a humanistic value-oriented psychoeducation program as a result of his study. As a result of the experimental studies, a decrease was observed in the problematic internet use and cyberbullying scores of the individuals in the experimental group. Ayaş and Horzum (2013) observed a decrease in the internet addiction scores of the individuals in the experimental group as a result of the program designed to reduce psychological symptoms caused by internet addiction. Ögel (2001) stated that intervention programs for internet addiction can be effective in reducing addictive behaviors. Young (2007) observed a decrease in the internet addiction symptoms of the individuals in the experimental group participating in the study as a result of the cognitive therapy-based group counseling program. Arar (2018) concluded that as a result of the psychoeducation program on coping with internet addiction, tenth grade students' internet use decreased. It was determined by the researcher that these research results and the results of this study have similar characteristics with other studies in terms of total scores of the Internet addiction scale. In other words, the results of the study are consistent with the results of other studies in the literature.

The change in the emotional intelligence scores of the students in the control group after the pretest, posttest and follow-up test was found to be significant. The emotional intelligence test follow-up test scores of the students in the control group were lower than the pretest and posttest emotional intelligence test scores. The change in the total emotional intelligence scores of the students in the experimental group after the pretest, posttest and follow-up test was found to be significant. The total emotional intelligence test scores of the students in the experimental group increased in the posttest compared to the pretest and after

the follow-up test compared to the posttest. The emotional intelligence scores of the individuals participating in the study increased and internet addiction scores decreased. In other words, there is a negative significant relationship between internet addiction and emotional intelligence. The research result is similar to other studies in the literature. Sarıçam and Çelik (2018), Avcı (2018), Ançel et al., (2015) found a relationship between emotional intelligence and internet addiction. According to the results of the related studies and this study, they support each other. Similarly, Aktan (2018), Kant (2018), Khoshakhlagh and Faramarzi (2012), Dong et al., (2010), Pinnelli (2002), Yen et al., (2007), Parker et al., (2008), Beranuy et al., (2009), Reisoğlu et al., (2013) also found a significant relationship between technology addiction scores and emotional intelligence scores. The results of different studies overlap with the findings of this study. For example, Maddi et al., (2013) found a significant relationship between internet addiction and emotional intelligence. Similarly, Usta (2017) found a significant relationship between emotional intelligence and internet addiction. It was determined by the researcher that these research results and the emotional intelligence scale used in this study have similar characteristics in terms of subtotal scores. In other words, it was concluded that the results of the study are compatible with other research results in the literature.

The follow-up test scores of the students in the control group were lower than the pretest and posttest happiness increasing strategies test scores. The change in the mean scores of the experimental group students' happiness increasing strategies after the pretest, posttest and follow-up test was found to be significant. The posttest and follow-up test mean scores of the students in the experimental group increased compared to the pretest. According to the results of the study, internet addiction scores of individuals whose happiness enhancement strategies increased decreased. Various studies were found in the literature supporting this finding of the study. Ha and Hwang (2014), Jeong et al., (2015) Yoo et al., (2014) concluded that internet (media) addiction decreases happiness (subjective well-being). Thome'e et al., (2011), Bian and Leung (2015) concluded that individuals with high technology addiction experience more depression problems. Agbaria (2020) stated that positive emotions can indirectly reduce internet addiction. Gottfredson and Hirschi (1990) stated that negative emotions underlie negative behaviors such as crime, violence and addiction. Lin et al., (2014) concluded that the problem of internet addiction usually occurs as a result of psychological needs. In fact, it has been concluded that the satisfaction of needs cannot be met sufficiently, that is, as a result of the person's inability to be happy, the person seeks happiness on the addictive internet. It was determined by the researcher that these research results and the total scores of the happiness enhancement strategies scale used in this study have similar characteristics. In other words, it was concluded that the results of the study are compatible with the results of other studies in the literature.

When the literature was examined during the research process, it was observed that there was not enough research on the subject. New researches can be planned for different sample groups with different variables including the concepts of technology addiction, emotional intelligence and strategies to increase happiness. The quantitative data obtained as a result of the researches can guide researchers and practitioners for the preparation of new group counseling programs.

The number of practical, applicable and culture-specific studies in the field for solving the problem of technology addiction, which is an important problem of our age, is quite low. New group counseling programs, psychoeducation programs, group guidance programs based on different therapy approaches for technology- internet addiction should be prepared and implemented by experts and researchers working in the field.

## **Declarations**

### **Conflict of Interest**

No potential conflicts of interest were disclosed by the authors with respect to the research, authorship, or publication of this article.

### **Ethics Approval**

For the research, the approval of the ethics committee was obtained from the "Yildiz Technical University Social and Humanities Research Ethics Committee" on "21.03.2021" and as a result of the decision of the meeting numbered "2021/01".

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### Research and Publication Ethics Statement

Hereby, we as the authors consciously assure that for the manuscript "Research On The Effectiveness Of Psychological Counseling Programs On Internet Addiction Of Individuals Via Positive Psychology- Positive Psychotherapy-Oriented Group" the following is fulfilled:

- This material is the authors' own original work, which has not been previously published elsewhere.
- The paper reflects the authors' own research and analysis in a truthful and complete manner.
- The results are appropriately placed in the context of prior and existing research.
- All sources used are properly disclosed.

### Contribution Rates of Authors to the Article

The authors provide equal contribution to this work.

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