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The Effect of Positive Psychotherapy(PPT) programs on Participants' Happiness and Resilience*

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Abstract

Purpose: The purpose of this study is to find a way to improve and overcome the psychological treatment limited to the negative factors dealt with in psychology from a positive psychological point of view. To this end, this study aims to verify whether a positive psychotherapy program can improve happiness, resilience, and post-traumatic growth along with improvement of psychological symptoms such as depression. **Research design, data and methodology:** To this end, in this study, mean difference analysis was conducted using t-test on 10 participants in the 16th PPT program and 14 in the control group. Also, after setting the main variables, we tried to confirm the effectiveness through simple regression analysis and multiple regression analysis of the causal relationship model. **Results:** As a result of the independent sample t-test and the paired sample t-test, it was confirmed that the group participating in the PPT program had higher flourish, happiness, resilience, post-traumatic growth, and lower depression. In addition, as a result of regression analysis, it was confirmed that post-traumatic growth had a positive effect, and that depression was a life-threatening factor. **Conclusions:** Since the PPT program has a positive effect on the participants with relatively negative psychological symptoms, it is necessary to expand it. In addition, it is necessary to introduce various preventive programs such as PPT as well as traditional psychological treatment for negative symptoms such as depression.

Keywords : Positive Psychotherapy(PPT), Positive Psychology, Happiness, Resilience, Post-traumatic Growth (PTG)

JEL Classification Code : I10, I12, I31, M19.

1. Introduction

The World Health Organization (WHO) has declared a pandemic due to the COVID-19 virus that has recently spread around the world, and each country is in a situation where social and economic sanctions such as restrictions on movement of individuals are applied. An individual's maladaptation factors that occur in such a situation also act

as a cause of the onset of various psychological symptoms. Such big events and accidents can cause various types of negative emotions such as anxiety, anger, sadness, helplessness, etc. will cause. Therefore, there is a need for new counseling coaching techniques and counseling techniques that can overcome such trauma, adversity, and psychological symptoms and achieve happiness and growth by increasing resilience.

* This study is a shortened version of Dr. Woo's doctoral dissertation at Kernel University.

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Psychotherapy, which is of interest in this study, is the core activity of mental health professionals (e.g., psychologists, psychiatrists, psychologists, clinical therapists, social workers, etc.), and its theoretical and applied methods are diverse (Watkins, 2010). Psychotherapy effectively improves psychological distress (Castonguay, 2013; Seligman, 1995), and in many cases, psychotherapy has been reported to be much more effective than medication alone in the long run (Leykin & DeRubeis, 2009; Siddique et al., 2012). Psychotherapy so far has mostly focused on the shortcomings and aimed at reducing the symptoms of many disorders. In other words, psychotherapy so far has mostly assumed that treatment is to uncover childhood trauma, correct distorted thinking, dysfunction, and restore relationships.

However, Johnson and Wood (2017) argued that it is meaningless to talk about only one research field of 'positive' or 'negative' because most of the components studied in psychology exist as a continuum from positive to negative. Scholars who support positive psychology also argue that the psychotherapist's method of ignoring the positive and concentrating on the negative is limited (Rashid & Seligman, 2018), and that only about 65% of clients receiving psychotherapy have a therapeutic effect. (Seligman, 2012).

The purpose of this study is to find a way to improve and overcome the psychological treatment limited to the negative factors dealt with in psychology from a positive psychological point of view. To this end, this study aims to verify whether a positive psychotherapy program (Rashid & Seligman, 2018; Seligman et al., 2006) can improve happiness, resilience, and post-traumatic growth along with improvement of psychological symptoms such as depression.

2. Literature Review

2.1. Positive Psychology

Positive psychologists argue that traditional psychology has downplayed the other three duties of science just like treating mental illness, helping all people to live productive and fulfilling lives, and treating mental illness in discovering and nurturing talents (Linley et al., 2009). They point out that most psychologists have overlooked research on what is right and positive for humans, and that references to a positive and good life do not deviate from the level of religious leaders and politicians (Peterson, 2006; Seligman, 2002). Seligman and Csikszentmihalyi (2000, 2002) set the direction of interest in positive psychology as strength as weakness, designing the best as recovering the worst in life, and focusing on the lives of healthy people as much as healing the lives of the unhappy. Peterson (2006) stated that

the most basic assumption asserted in positive psychology is that human beings are given virtue and excellence at the same time that disease, and suffering occur. In other words, positive psychologists should think that themes such as virtue and excellence are not secondary, and not mere illusions or uncertainties.

Positive psychologists' interest in the good life has brought the psychology of religion, which has not been dealt with well, into the center of psychological research (Emmons & Paloutzian, 2003). Also, Positive psychology is a scientific study of the positive psychological aspects of humans, and it is a scientific study of optimal human functioning.

Therefore, it is the goal of positive psychology to discover optimal human functioning and to promote factors that enable individuals and communities to be flourish (Csikszentmihalyi, 1999; Rashid & Seligman, 2013), and positive psychology is the scientific study of all events of the good life and the right life in experience between birth and death (Peterson, 2006).

The main research topics of positive psychology are positive emotion, positive trait, and positive institution. Seligman (2002) stated that if human prosperity, optimal functioning, and happiness constitute positive emotions, then positive institutions mean social institutions and organizations that can induce and maintain positive emotions and positive qualities. In addition, positive traits are explained as personality strengths, which are positive characteristics within an individual that can lead to positive emotions and self-actualization.

2.2. Positive Psychotherapy

For over a century, Psychotherapy focused on discovering childhood traumas, correcting faulty mentality and recovering from functional disorder (Rashid & Seligman, 2018). These kinds of psychotherapies have contributed to reducing counselees' depression and anxiety but happiness was never used as one of the goals of treatment (Rashid & Seligman, 2018). On the contrary, PPT uses positive psychology to increase the happiness in counselees in order to neutralize their symptoms such as depression, anxiety, anger, or guilt that cause them distress (Rashid & Seligman, 2018).

PPT is the practical portion of positive psychology's psychotherapy. In order to balance the complexity of internal experiences that people go through, symptoms and strengths, risks and resources, weaknesses and values, regrets and hope are united (Rashid & Seligman, 2018). Therefore, PPT counselor must not ignore or minimize the counselee's pleas and sympathize with counselee's traumatic pain while very carefully observing the counselee's growth potential at the same time (Rashid & Seligman, 2018). Lee

Duckworth et al. (2005) pointed out that PPT isn't really a new genre of psychotherapy but rather a redirection of treatment in order to move away from the 'fixing the problem' and approach the 'strength building' model. PPT's ultimate goal is to help the counselees to learn the specific, personalized and appropriate skills that would help them live a more meaningful and satisfying life where they can make the best of their strengths (Rashid & Seligman, 2018).

Rashid and Seligman (2018) states that there are 3 main stages in PPT. When you begin first stage counselee creates a personal story by writing down about a past experience where he/she's displayed their best self while overcoming an adversity. Therapy work in this session focuses mostly on

signature strength profile evaluation and skill learning for strength and symptom cause integration. In second stage, help the counselee to reexamine their personal and interpersonal experiences; focus especially on switching the negative experience into positive experience in order for them to gain as balanced perspective as possible. For third stage, therapist should allow counselee to use utilize their strength to find hope for the future and develop positive relationships to pursuit life's meaning and goals (Rashid & Seligman, 2018).

Based on the above steps, the theme of each session of the PPT applied in this study is presented in <Table 1>.

Table 1: PPT's Session Topics

Stage & Session		Topics
Stage 1	Session 1	Introduction to Positive Psychology and Writing a Gratitude Diary
	Session 2	Character Strengths and Signature Strengths
	Session 3	Practical Wisdom
	Session 4	A Better Version of Me
Stage 2	Session 5	Open and Closed Memories
	Session 6	Forgiveness
	Session 7	Maximizing versus Satisficing
	Session 8	Gratitude
Stage 3	Session 9	Hope and Optimism
	Session 10	Post traumatic Growth(PTG)
	Session 11	Slowness and Savoring
	Session 12	Positive Relationships
	Session 13	Positive Communication
	Session 14	Altruism
	Session 15	Meaning and Purpose

Note: Presents the topic of the standard 15th session

2.3. Happiness

Happiness is defined as ‘a state of being satisfied with life and feeling good’, and it is the ultimate goal and purpose of life. The concept of happiness is diverse, and it is one of the concepts that have not yet been agreed upon by scholars. It is difficult to give an appropriate definition or answer to happiness because, unlike material concepts, happiness has an intangible and metaphysical aspect.

Even before positive psychology brought the scientific research of happiness, many ancient philosophers, religious leaders, and modern time psychologists have researched and taught about happiness. For example, Aristippus suggested hedonic happiness that maximizes pleasure and minimizes pain, and Epicurus presents hedonism as ethical hedonism, and our basic moral duty is It was said to maximize our enjoyable experience (Watson & Clark, 1994, 1995). On the other hand, Aristotle (284-322 BCE) opposes hedonism, suggests the concept of eudaimonia, which means the authenticity of the inner self, and considers sensual pleasure as the exclusive property of vulgar hedonists.

J. S. Mill and B. Russell defended this position, and modern psychological concepts such as Rogers (1964)'s ideal of the holistic human being, Maslow (1970)'s concept of self-actualization, and Ryff and Singer (1996)'s vision theory of psychological well-being strongly support this (Peterson, 2006).

Peterson (2006) stated that these two traditional thoughts were continued independently and in order to name their subject or to prevent other scholars from using the concept, he used the word “happiness”. There are definitely some arguments that occur at times, but it is without a doubt that researchers use both the hedonistic happiness and self-realizing happiness in order to reach a good life psychologically (Compton et al., 1996; Ryan & Deci, 2000; Waterman, 1993). In addition, some recent studies such as Huta et al. (2012) and Peterson et al. (2005) suggest that self-actualizing happiness can outperform hedonic happiness as a predictive variable of life satisfaction.

Monism of self-realizing happiness by Aristotle which stated that “The purpose and ultimate goal in life is to achieve eudaimonia (happiness)” was accepted by authentic happiness, the first positive psychology theory proposed in

2002, too. However, for the new theory of well-being, PERMA was suggested for the pluralistic theory of Flourish. Seligman (2012) remarks that monism with its singular variable cannot explain the subtle and varying distinctions of specific phenomena.

Seligman (2012) said that if we want everyone to truly live happily, we need to measure the degree of PERMA and increase PERMA. In other words, PERMA, the well-being theory of positive psychology, summarizes the conditions that can make life happy (Seligman, 2012).

2.4. Resilience

Resilience is the power to overcome adversity, and it is a tool that strengthens the psychological muscles and allows for further growth. Most people face adversity along the journey of life. These experiences have left some people unable to overcome adversity, leading to despair, depression or, in the worst case, suicide. On the other hand, some people become stronger and more successful in life despite the great adversity they may not be able to bear. As for how to deal with stress, some people engage in unhealthy habits like overeating and drinking to deal with stress, while others take healthy approaches like exercise or psychological strengthening to deal with it. Reivich and Shatte (2003) said that the reason why many people react differently to the same stimulus is because of 'resilience'. In other words, the degree of resilience can change attitudes to adversity.

Resilience refers to the ability of members to recover from adversity and hardship and to adapt flexibly to changing needs (Block & Kremen, 1996). Previous studies such as King et al. (2016), Luthans (2002), and Masten (2001) have suggested psychological resilience as a psychological resource that can grow and develop further than before by maintaining and restoring psychological energy in challenging situations.

Resilience has its roots in ecology, and several definitions have been developed in different contexts. From a social psychology perspective, resilience is defined as cognitive developmental capacity (Corner et al., 2017). Richardson (2002) also defines resilience as individual differences or life experiences that enable people to positively cope with adversity, respond well to future stress, and defend against psychological difficulties caused by stress. Resilience traits enable individuals to use adaptive cognitive and behavioral coping processes in response to adversity and significant stress (Sinclair & Wallston, 2004).

In this study, using the definitions of Block and Kremen (1996) and Richardson (2002), resilience was defined as "a life experience that can positively overcome adversity and hardship and flexibly adapt to changing demands".

3. Research Methods and Materials

3.1. Research Model and Hypothesis

In this study, 16 sessions of counseling coaching program related to positive psychotherapy were operated, and the effectiveness of the program was verified by analyzing the average difference of each factor in the participants and control groups for the factors measured each time. In addition, this study tried to confirm the causal relationship by constructing a structured research model on the effects of flourish, depression, and post-traumatic growth on happiness and resilience of participants in the program.

Positive psychotherapy used PERMA to treat and grow psychological symptoms by creating happiness and increasing resilience (Rashid & Seligman, 2018). Fredrickson (2009) stated that the higher the positive emotion ratio, the more people can become not only happy and self-sufficient, but also creative, resilient, productive, and grow and develop day by day. In addition, Seligman et al. (2005) found that finding strengths and consciously using them resulted in increased happiness and decreased depression. Kashdan et al. (2006) argued that veterans with high strength levels such as optimism, forgiveness, and gratitude have a lower risk of PTSD. These results suggest that flourish can enhance resilience. Therefore, the following hypotheses were established.

H1-1: As the participant's flourish increases, the level of happiness will increase.

H1-2: Resilience will increase as the participant's flourish increases.

Freud (1917) argued that depression is a response to the loss of a loved one, and that depression occurs in the process of accepting such loss. Behaviorists say that human behavior is the result of learning caused by environmental factors, and in behaviorist theory, depression is a phenomenon caused by the weakening of positive reinforcement from the social environment. Skinner (1938) stated that reinforcement can temporarily relieve depression, but it can also have the opposite effect of continuing depressive symptoms. Seligman (2006), who proposed Learned Helplessness, said that depression is a serious manifestation of pessimism. And to understand the subtle phenomenon of pessimism, it is necessary to look at the expanded and exaggerated form of depression (Seligman, 2016).

In this study, studies showing that depression reduction improves happiness (Forgeard et al., 2011; Rashid & Seligman, 2018; Reivich et al., 2011) and studies showing that resilience reduces depression (Fredrickson, 2009; Shatte, 1996) established the following hypotheses.

H2-1: If the participant's depression decreases, the level of happiness will increase.

H2-2: Resilience will increase as the participant's depression decreases.

After trauma, some people develop PTSD (Post Traumatic Stress Disorder). However, most people develop post-traumatic growth (PTG) after trauma. Post-traumatic growth (PTG) refers to psychological growth after receiving a psychological trauma from an accident in which physical damage or life-threatening after experiencing trauma (Tedeschi & Calhoun, 1995). Tedeschi and Calhoun (1995) introduced the term PTG to name the experience that it is not unfamiliar from a general point of view that people change for the better when faced with major crises. They defined PTG as a positive change that an individual experience as a result of struggling in the face of a traumatic event (Tedeschi & Calhoun, 1995). Seligman (2011) found that after experiencing extreme adversity, a significant number of people develop severe depression and anxiety, often reaching PTSD levels, but then they grow up and in the long run their level of psychological functioning becomes higher than before. These findings suggest that post-traumatic growth can increase happiness and have the potential to enhance resilience. Therefore, the following hypotheses were established.

H3-1: As the participant's post-traumatic growth increases, the level of happiness will also increase.

H3-2: As participants' post-traumatic growth increases, their resilience will also increase.

A structured research model including the above hypotheses is presented in <Figure 1>.

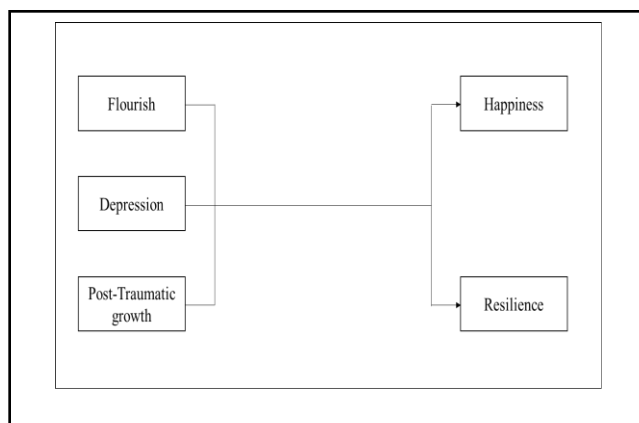


Figure 1: Research Model

3.2. Data Collection and Utilization Measures

The PPT program for this study was conducted from

August 5, 2019, to November 18, 2019, at Counseling Center A in Gyeonggi-do, every Monday from 10:00 to 12:00 for 120 minutes each for 16 weeks. Initially, 12 people participated, but 2 of them gave up in the 4th and 5th sessions, respectively, and a total of 10 people completed the PPT training. A total of 16 PPT programs were operated for them, and the same questionnaire was conducted in the 1st, 8th, and 16th sessions. Separately, 14 people taking the liberal arts course at the Lifelong Education Center at University A was constituted as a control group, and the same questionnaire as the participant group was obtained in the 1st and 8th rounds of the PPT program.

The Flourish index diagnosis was measured on a 5-point Likert scale with 35 items such as "I am full of joy" presented in Rashid and Seligman (2018) 's Positive Psychological Flourish Index Diagnostics (FRI). Depression was measured using the CES-D (Radloff, 1977) self-diagnosis method for depression, and 20 items such as "I was used to things that were normally not okay" from 0 (never or rarely) to 3 (almost always or (as always) were measured and summed up. Post-traumatic growth was measured using Tedeschi et al. (2015)'s Post-Traumatic Growth Test (PTGI) scale, and 20 items such as "I changed my priorities of what is most important in my life" were 0 (after a trial, I changed these changes) I did not experience this) to 5 (after the ordeal, I experienced this kind of change a lot), and then summed it up and used it. The level of happiness was measured from 0 to 100 by asking, "How many points out of 100 are you currently happy with?" as a single item. Finally, resilience was measured using Reivich et al. (2013) 's RQ Test scale and 56 items such as "When I try to solve a problem, I trust my intuition and apply the first solution that comes to mind" was measured on a 5-point Likert scale. After measurement, the average value was used.

Both the participating and control groups were composed of women, and the average age of the participating group was 50.90 years ($\sigma = 4.65$) and the control group was 49.43 years old ($\sigma = 5.72$). The overall demographic characteristics of the participating group and the control group could be judged to be similar.

In the causal relationship analysis, each variable was converted into a z-score and analyzed to resolve the scale difference.

4. Results and Discussion

4.1. Analysis of Mean Difference between Groups and Sessions

An Independent Sample t-test was used to confirm the effectiveness of the PPT program. The analysis confirmed the average differences in flourish, depression, post-traumatic growth, resilience and happiness for the 1st and

8th sessions of the participant group and the control group, respectively.

As a result of the 1st session mean difference analysis between the participating group and the control group, the control group had statistically significantly higher flourish ($t=-2.215$, $p<.05$) and resilience ($t=-2.244$, $p<.05$) than the participation group, and depression ($t=3.045$, $p<.01$) was also found to be low. These results can be interpreted as a group with relatively psychological symptoms among the participants who participated in the PPT program (refer to Appendix 1). However, in the 8th session, there was no statistically significant difference in the results of analysis of the average difference between the participating group and the control group for each variable. It was found that the PPT program was effective (refer to Appendix 2).

On the other hand, the results of paired sample t-test to confirm the average difference between each group are as follows. First, the results of the 1st and 8th sessions of mean difference analysis of the participating group showed that flourish ($t=-3.038$, $p<.05$), post-traumatic growth ($t=-3.537$, $p<.01$), and happiness ($t=-6.678$, $p<.01$) and resilience ($t=-4.358$, $p<.01$) were found to be statistically significantly increased, and depression ($t=3.349$, $p<.01$) was found to be statistically significantly lowered. These results indicate that the PPT program is effective for participants (see Appendix 3). However, as a result of the mean difference analysis for the control group, there were statistically significant positive changes in depression ($t=-2.187$, $p<.05$) and resilience ($t=2.382$, $p<.05$), but flourish ($t=1.197$, $p=.253$) and post-traumatic growth ($t=0.540$, $p=.598$) were confirmed to have no statistically significant changes. This result is insignificant compared to the participation group and can be interpreted as a result that indirectly proves the effectiveness of the PPT program (refer to Appendix 4).

The results of the analysis of the average difference between the 1st and 16th sessions of the participating group were flourish ($t=-7.631$, $p<.01$) and post-traumatic growth ($t=-3.995$, $p<.01$) at the 99% confidence level. Happiness ($t=-6.353$, $p<.01$) and resilience ($t=-4.124$, $p<.01$) were improved, and depression ($t=4.546$, $p<.01$) was also decreased. These results indicate that the PPT program had a very positive effect on the participants (refer to Appendix 5).

4.2. Results of Hypothesis test

4.2.1. Reliability and Validity

This study is an experimental study through PPT program education, and the same questionnaire was measured in sessions 1, 8, and 16 for a total of 3 rounds of 10 valid participants. Therefore, in order to secure the sameness of the questionnaire, the reliability was measured by vertically organizing the questionnaires for each session.

Cronbach's α value, a measure of internal consistency, was 0.932 for flourish, 0.924 for depression, 0.923 for post-traumatic growth, and 0.831 for recovery. In the case of happiness scale, internal consistency (reliability) using Cronbach's α as a single item could not be confirmed. In addition, although standard estimate is not derived because of the number of participants in the participating group is small, but since all measures used in this study have intellectual property rights at the Institute for Positive Psychology. Face validity for each question was secured, and it was concluded that convergent validity and discriminant validity were secured based on the original text.

4.2.2. Results of Correlation Analysis

Correlation analysis results showed that depression was associated with flourish ($r=-.755$, $p<.01$), post-traumatic growth ($r=-.498$, $p<.01$), happiness ($r=-.840$, $p<.01$), and resilience ($r=-.775$, $p<.01$) was found to have a negative (-) relationship, and it was confirmed that all other variables had a statistically significant positive (+) relationship.

Table 2: Correlation analysis result

Constructs	1	2	3	4	5
1. Flourish	1				
2. Depression	-0.755**	1			
3. PTG	0.528**	0.498**	1		
4. Happiness	0.706**	-0.840**	0.631**	1	
5. Resilience	0.707**	-0.775**	0.532**	0.554**	1
Mean	3.64	9.27	77.57	75.33	3.00
SD	0.46	7.35	13.59	14.01	2.71

Note: ** $p<.01$, PTG: Post-traumatic growth

To test the hypothesis, simple regression was performed after controlling for age and educational background confirmed to be related to the variables. In addition, although it was not set as a hypothesis, multiple regression analysis was performed to confirm which factors have more influence on the dependent variables.

As a result of the analysis, it was found that flourish ($\beta = .800$, $p<.001$) had a statistically significant positive (+) effect on happiness. This result means that individual happiness also increases when the flourish index is increased through the PPT program. Therefore, <Hypothesis 1-1> was accepted.

In addition, it was found that flourish ($\beta = .572$, $p<.01$) had a statistically significant positive (+) effect on recovery. This result means that individual resilience can be increased if the flourish index is increased through the PPT program. Therefore, <Hypothesis 1-2> was also accepted.

Depression ($\beta = -.812, p < .001$) was found to have a statistically significant negative effect on happiness. These results suggest that individual depression is an important factor that can impair individual happiness. Therefore, it means that efforts are needed to reduce individual depression through the PPT program. Also, depression ($\beta = -.650, p < .001$) was found to have a statistically significant negative effect on recovery. These results also suggest that efforts to reduce individual depression through the PPT program are necessary because individual depression is an important factor that can impair an individual's resilience. Therefore, <Hypothesis 2-1> and <Hypothesis 2-2> were both accepted.

The results of regression analysis to confirm the effect of post-traumatic growth on happiness showed that post-traumatic growth ($\beta = .542, p < .05$) had a statistically significant positive (+) effect on happiness. These results suggest that efforts to help individuals overcome negative situations can improve their happiness. However, it was confirmed that post-traumatic growth ($\beta = .338, p = .117$) did not have a statistically significant effect on resilience. Therefore, <Hypothesis 3-1> was accepted and <Hypothesis 3-2> was rejected.

In order to find clues about the direction of the PPT program, the results of multiple regression analysis to determine which factors have a more positive effect on each of happiness and resilience are as follows. First, it was found that depression ($\beta = -.603, p < .01$) and post-traumatic growth ($\beta = .289, p < .05$) had an effect on personal happiness in the order. These results suggest that depression is the most influential variable that reduces personal happiness, and that post-traumatic growth is a factor that can promote happiness. Also, these results suggest that the direction of the PPT program is appropriate and can be effective. Because it is structured and operated step-by-step, the PPT program enables participants to recognize and expand themselves through flourish, relieve depression through forgiveness and gratitude, as well as find hope for the future and pursue the meaning and purpose of life after trauma.

Meanwhile, the results of multiple regression analysis on resilience confirmed that only depression ($\beta = -.579, p < .01$) had a statistically significant negative (-) effect on resilience. As mentioned earlier, when looking at the step-by-step contents of the PPT program, it can be seen that it can be much more effective if additional efforts are made to reduce the participants' depression in the second step configuration.

5. Conclusions

The following conclusions were drawn through this study. First, the PPT program has a positive effect on the participating group with relatively negative psychological

symptoms. This is evidence that the control group had higher flourish, resilience, and lower depression than the participant group before the program operation, but there was no statistically significant difference between the groups as a result of the 8th session analysis. In particular, in the case of post-traumatic growth, the fact that the participation group participating in the PPT program was higher than the control group means that the PPT program can be a guide to lead a positive life. Second, the effectiveness of the PPT program was also confirmed as a result of checking the mean difference between sessions by group. Specifically, it was confirmed that compared to the control group, the participation group had higher flourish, resilience, happiness, post-traumatic growth, and lower depression as the number of sessions increased. These results also mean that the PPT program is a high-quality program that supports a healthy life. Third, as a result of causal relationship analysis, it was confirmed that flourish and post-traumatic growth are important factors for a happy life, and depression is a factor that negatively affects happiness and resilience. These results suggest that positive psychology and positive psychology based PPT program not only have the potential to treat patients in a weak situation, but also have a positive effect on the general public. Finally, the results of multiple regression analysis of the antecedent variables affecting happiness and resilience confirmed that depression and post-traumatic growth had an effect on individual happiness in that order, and that only depression was the most influential variable on resilience. These results indicate that it is necessary to introduce various preventive programs such as PPT as well as traditional psychological treatment for depression. This is because traditional psychotherapy intervenes and performs treatment after a disease occurs, but positive psychology and positive psychology based PPT programs have the characteristic of providing a foundation for leading a better life by intervening in human life in advance.

This study proves the effectiveness of the PPT program as one of the ways to lead a healthy life and derives various clues that positive psychology can help humans. However, some limitations of this study need to be supplemented in future studies. First, due to the relatively long period of PPT program operation, the absolute number of participants in the group is insufficient. Although the lack of absolute personnel is a limitation of experimental research, it is necessary to devise a more generalized operating method in future research. Second, the fact that happiness consists of a single item must also be supplemented. This is because, in the case of a single variable, validity or reliability cannot be verified. Lastly, it is necessary to consider ways to improve the various biases of the self-report questionnaire.

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Appendixes

Appendix 1: Results of the 1st Session's Mean Difference Analysis

Variable	Group	N	Mean	S.D	Mean Differences	t-value	p-value
Flourish	Participation	10	3.36	0.43	-0.48	-2.215	0.037
	Control	14	3.84	0.64			
Depression	Participation	10	12.90	7.15	7.82	3.045	0.009
	Control	14	5.07	4.57			
PTG(Post-traumatic growth)	Participation	10	66.40	14.60	-7.67	-1.252	0.225
	Control	14	74.07	15.06			
Happiness	Participation	10	67.50	15.50	-9.28	-1.597	0.130
	Control	14	76.79	11.70			
Resilience	Participation	10	1.43	2.34	-2.31	-2.244	0.036
	Control	14	3.74	0.66			

Appendix 2: Results of the 8th Session's Mean Difference Analysis

Variable	Group	N	Mean	S.D	Mean Differences	t-value	p-value
Flourish	Participation	10	3.67	0.38	-0.08	-0.372	0.714
	Control	14	3.75	0.63			
Depression	Participation	10	8.40	7.97	0.26	0.081	0.936
	Control	14	8.14	7.22			
PTG(Post-traumatic growth)	Participation	10	80.00	10.52	7.64	1.347	0.192
	Control	14	72.35	17.20			
Happiness	Participation	10	3.23	2.82	-1.18	-0.880	0.389
	Control	14	4.41	3.74			
Resilience	Participation	10	3.67	0.38	-0.08	-0.372	0.714
	Control	14	3.75	0.63			

Appendix 3: Results of Comparison of the Mean Difference of the 1st to 8th session for the participating group

Variable	Session	N	Mean	S.D	Mean Differences	t-value	p-value
Flourish	1 st	10	3.36	0.43	-0.31	-3.038	0.014
	8 th	10	3.67	0.38			

Depression	1 st	10	12.90	7.15	4.50	3.349	0.009
	8 th	10	8.40	7.97			
PTG(Post-traumatic growth)	1 st	10	66.40	14.60	-13.60	-3.537	0.006
	8 th	10	80.00	10.51			
Happiness	1 st	10	67.50	15.50	-10.50	-6.678	0.000
	8 th	10	77.22	12.77			
Resilience	1 st	10	1.43	2.34	-1.80	-4.358	0.002
	8 th	10	3.23	2.82			

Appendix 4: Results of Comparison of the Mean Difference of the 1st to 8th session for the Control group

Variable	Session	N	Mean	S.D	Mean Differences	t-value	p-value
Flourish	1 st	14	3.84	0.64	0.09	1.197	0.253
	8 th	14	3.75	0.62			
Depression	1 st	14	5.07	4.57	-3.07	-2.187	0.048
	8 th	14	8.14	7.22			
PTG(Post-traumatic growth)	1 st	14	74.07	15.06	1.71	0.540	0.598
	8 th	14	72.35	17.19			
Happiness	1 st	14	5.15	4.06	0.74	2.382	0.033
	8 th	14	4.40	3.74			
Resilience	1 st	14	3.84	0.64	0.09	1.197	0.253
	8 th	14	3.75	0.62			

Appendix 5: Results of Comparison of the Mean Difference of the 1st to 16th session for the participating group

Variable	Session	N	Mean	S.D	Mean Differences	t-value	p-value
Flourish	1 st	10	3.36	0.43	-0.54	-7.631	0.000
	16 th	10	3.90	0.46			
Depression	1 st	10	12.90	7.15	6.40	4.546	0.001
	16 th	10	6.50	5.97			
PTG(Post-traumatic growth)	1 st	10	66.40	14.60	-19.90	-3.995	0.003
	16 th	10	86.30	6.46			
Happiness	1 st	10	67.50	15.50	-14.44	-6.353	0.000
	16 th	10	80.56	12.36			
Resilience	1 st	10	1.43	2.34	-2.91	-4.124	0.000
	16 th	10	4.34	2.34			