

Effectiveness of Positive Thinking Training on Self-Efficacy and Reduction of Depression and Anxiety of Recovered Students with Coronavirus

parvin mirzaei¹

Abstract

Objective: Corona disease (COVID-19) is a contagious disease. This disease, with such a global spread, has caused many disorders in people. Among disorders caused by coronavirus, anxiety and depression are the most common ones. One of the ways to deal with depression and anxiety is positive thinking. Positive thinking is a positive way to focus the mind on something constructive, thus removing negative and destructive thoughts and emotions. Therefore, this research was conducted to reduce anxiety and depression and increase self-efficacy in students who have recovered from the coronavirus.

Method: The research method was semi-experimental with a post-test-post-test-follow-up design with a control group, and the target population was students who had recovered from Corona. Of these, 40 people were purposefully selected as samples based on inclusion and exclusion criteria and randomly divided into two groups of 20 people. To collect data from the beginning and before the training, Goldberg's depression questionnaire (1972), Spielberger's test anxiety questionnaire (1983), and Scherer and Mardox's self-efficacy questionnaire (1982) were used. Also, in this research, positive thinking training intervention was administered during 14 one-hour sessions. Covariance and correlation methods were used to analyze data. The correlation between the results of the experimental and control groups in the post-test and pre-test stages and the follow-up phase was obtained and compared with each other.

Results: The results showed that positive thinking training affected self-efficacy ($P=0.001$), reduced depression ($P=0.01$), and decreased anxiety ($P=0.01$) of students who recovered from Coronavirus.

Conclusion: Teaching positive thinking skills has been effective and has increased self-efficacy, reduced anxiety, and reduced depression in patients who have recovered from Corona.

Keywords: Anxiety; Coronavirus; Depression; Positive Thinking; Self-Efficacy.

Introduction

Suffering from various infectious diseases throughout history has been one of the most serious threats to human health, the most recent of which is the emergence of COVID-19 (Zolfaghari & Elahi, 2020). At the beginning of 2020, an unexpected outbreak caused by a new virus made this issue visible around the world.

The exponential growth in the number of people infected with this virus was a threat (McIntosh, Hirsch & Bloom, 2019). Coronavirus is a large family of viruses that causes respiratory infections from colds to acute respiratory diseases and causes death in some people. This disease, with such a global spread, has caused many disorders in people. The disorders caused by coronavirus in most cases are anxiety and stress. The disorders caused by contracting this virus are mostly unknown and there is cognitive ambiguity about it (Bojnordy, Ghadam Pour,

1. Assistant Professor, Department of Psychology,
Payam noor University, Tehran, Iran.

Shakib & Shazban Zadeh, 2020).

Much research has shown us that the occurrence of diseases such as respiratory diseases due to physical problems and a decrease in the quality of patients' lives will cause anxiety and threaten people's mental health (Fard & Nia, 2020). In this regard, examining the results of numerous studies conducted on patients with COVID-19 in China during the spread of the disease showed a number of these psychological disorders, including anxiety, fear, depression, emotional changes, insomnia, and post-traumatic stress disorder (Malesza & Kachmark, 2021). The unbridled spread of COVID-19, the unfavorable condition of isolated patients in the intensive care unit with acute respiratory problems, the absence of effective drug treatment, and finally, the death caused by this disease are among the most outstanding factors that can affect mental health. People infected with this virus are severely affected (Omidy, Rasoli & Aras, 2019). COVID-19 is a viral disease that causes pulmonary inflammation (Eisazadeh, Aliakbari Dehkordi, & Aghajanbigloo, 2020). It has now spread across the world. The disease was first identified in Wuhan, Hubei province, China, in December 2019. People of different ages, genders, and physical abilities are vulnerable to being affected by this disease (Mamun & Griffiths, 2020).

Iran is one of the countries in the world that have been affected by COVID-19, which spread quickly due to the country's close relationship with China, endangering people's mental and physical health (Alipour, Ghadami, Alipour, & Abdollahzadeh, 2020).

In the state of anxiety, the suggestibility of people increases, and hence, patients are prone to accept any rumor or advice, and this can be harmful to the physical and mental health of a

person (Alizadeh Fard & Safarinia, 2019). A person who is under constant anxiety and worry loses his/her self-confidence, and while feeling inferior, he/she becomes depressed, which in turn will fuel the vicious cycle of job stress and efficiency. The continuation of this cycle can gradually erode people's mental and physical abilities and after some time, it leads to unstable mental and nervous disorders (Bajama, Oster, & McGovern, 2020). Anxiety is an unpleasant and often vague feeling of worry that is accompanied by one or more physical symptoms such as heart palpitations, shortness of breath, feeling of empty stomach, sweating, restlessness, and the urge to move (HajSadeghi et al., 2016).

When anxiety is beyond the person's tolerance in terms of intensity and duration, daily life is disrupted and abnormal changes in behavior occur; then, it turns to a pathological and abnormal state (Bilgel & Bayram, 2018). In the time of Corona widespread, most people were looking for more information to relieve their anxiety caused by many issues. One of these issues could be the great wait and anxiety for the majority of society to access the vaccine for this disease. The second problem was the amount of physical and mental damage to the health (especially the lungs of the patients) (Tok, Tsang, & Yip, 2020).

Also, depression is one of the most common mental disorders that can prevent people from progressing and improving in performing their duties by reducing their abilities. The correction of depression refers to a set of behaviors whose characteristic element is slowness in movement and speech. Crying, sadness, lack of active responses, lack of interest, low worth, insomnia, and lack of appetite are also among its symptoms (Ghaffarzadeh Razaghi, 2017).

Research shows us that the occurrence of diseases

such as respiratory diseases due to serious physical problems and a decrease in the quality of life of patients will cause anxiety caused by the disease and threaten people's mental health (Fard & Nia, 2020). In this regard, examining the results of numerous studies conducted on patients with COVID-19 in China during the spread of the disease showed a number of these psychological disorders, including anxiety, fear, depression, emotional changes, insomnia, and post-traumatic stress. The unbridled spread of COVID-19, the unfavorable condition of isolated patients in the intensive care unit with acute respiratory problems, the absence of effective drug treatment, and finally, the death caused by this disease are among the most crucial factors that can affect mental health (Omidi, Rasoli & Aras, 2019). During quarantine conditions, compassion with positive affect, problem-solving strategies, and excitement had a positive relationship, but its relationship with negative emotions, depression, and ineffective coping was negative (Baito, de Costa & Nogueira, 2021).

In the field of treating patients' psychological problems, such as depression and anxiety, various approaches have been used, including drug therapy, psychotherapy, and combined treatments. One of the ways to deal with depression and anxiety is positive thinking. Positive thinking is the way or positive focus of one's mind on something constructive and good, removing negative or destructive thoughts and emotions (Emami, Pirani, & Heydari, 2019). Positivism means having optimistic attitudes, thoughts, and behavior in life. In other words, from the point of view of psychology, positivism is both positive thinking and positive action. Positive thinking helps people to cope with life in the best way (Omidi et al., 2019).

Therefore, it seems that recovered people will suffer from many psychological problems, such as anxiety, depression, and sleep disorders. Therefore, it is significant to identify the treatment methods of these patients (Chen, Liang, & Li, 2020). Positive thinking training, as one of the most important developments in contemporary psychology, is the focus of psychology from psychopathology and dealing with abnormalities and disorders to topics such as positive emotions and emotions, spirituality, creativity, moral virtues, increasing and improving well-being, quality of life, happiness, and hope (Adalat & Makundi, 2017). The ultimate goal of this approach is to identify the concepts and methods that create well-being and happiness in humans and to scientifically study the role of personal capabilities and positive social systems in promoting optimal health. Therefore, the factors that explain human adaptation to the needs and threats of life are the most fundamental structures under research in this science (Haririyani et al., 2018).

Based on this approach, the strategies that help subjects create a pleasant, attractive, and meaningful life are called positive interventions. Farhoud and Biglerian (2013) confirmed that teaching positivity increases self-efficacy. Positive thinking shows us that to feel good about ourselves, establish valuable relationships with others, follow logical principles in our decisions, overcome life's challenges, and not shy from facing life's problems, we should look at life positively (Naimi et al., 2015). Experts warned that the world may face a mental health crisis after the coronavirus epidemic. The spread of the coronavirus and its social and health-related consequences should be considered one of the most important human social events in the 21st century (Khodabakhshi Kolayi, 2019).

Therefore, it seems that recovered people will suffer from many psychological problems, such as anxiety, depression, and, as a result, sleep disorders. So it is significant to identify the treatment methods (Mehafarid, Khakpour, & Jajarmi, 2015).

According to what was said, the coronavirus disease has psychological consequences for all society. People who have recovered from this disease may also be affected by mental disorders. For this reason, the present study investigates the self-efficacy and reduction of anxiety and depression of these patients by using positive thinking training in students who have recovered from Corona (Zhu, Wei & Niu, 2020)

Method

Target population: The research method was semi-experimental with pre-test-post-test and follow-up stage with a control group. The statistical population was all students who recovered from Corona in 2020. Their depression and anxiety scores were higher than the cut-off score. Among them, 40 people whose depression and anxiety scores were higher than the cut-off score were purposefully selected and randomly divided into two groups of 20 people in the experimental and control groups. The experimental group underwent positive thinking training during 12 one-hour sessions. First, before training, the Goldberg Depression Questionnaire (1972), Spielberger Test Anxiety Questionnaire (1983), and Scherer and Mardox Self-Efficacy Questionnaire (1982) were administered as a pre-test, again after 12 sessions of positive thinking training, the tests were administered as a post-test. After three weeks, the follow-up was implemented. Correlation and covariance were used for statistical analysis.

The inclusion criteria of eligible participants included having symptoms of depression so that they get the necessary score on the Goldenberg depression scale, having symptoms of anxiety so that they get the required score on the Spielberger anxiety scale, and having been infected with COVID-19. Non-corona and corona patients who did not suffer from depression and anxiety were excluded from the research.

Ethical Statement

- The objectives, methods, and application of the results were fully explained to the participants.
- A consent form was obtained from each participant.
- If the participants were not satisfied, they were allowed to leave the project.
- In case of fatigue, the execution of the tests would be postponed to the following sessions.
- The participants were assured that the results would be completely confidential and not be reflected elsewhere except in the study.

Instruments

Goldberg's depression questionnaire (1972): It is used to measure the level of depression. This questionnaire has 18 questions, and its purpose is to evaluate the level of depression disorder or the possibility of suffering from it. Each of the statements is scored in a 5-point range. The validity of this questionnaire was conducted on 40 female English students. The validity value was 0.653, and its reliability value was 0.795 through Cronbach's alpha, so the validity and reliability of this questionnaire have been confirmed.

Spielberger Anxiety Questionnaire (1983): This questionnaire measures the anxiety level. It has 23 questions, and its purpose is to measure the dimensions of test anxiety, social humiliation, cognitive error, and tension. Its response range is on a Likert scale. The validity and reliabil-

ity of this questionnaire were also obtained by Spielberger values of 0.598 and 0.741, which shows its approval.

Sherer and Mardox self-efficacy questionnaire (1982): This scale measures three aspects of behavior, including the desire to initiate the behavior, continuing efforts to complete the behavior, and resistance to facing obstacles. Sherer et al.'s general self-efficacy scale has 17 items. Cronbach's alpha test was used to test the reliability of the questionnaire. Based on this method, with a preliminary study on 40 employees of the investigated community and using SPSS statistical software, the reliability of self-efficacy questions was obtained as 0.857. The value of these statistics shows that the items have a high correlation with each other and the research questionnaire has high reliability.

Statistical analysis: in the data analysis process, frequency tables and graphs were used for descriptive statistics. To describe the obtained data, median, mode, and frequency tables were

used. In descriptive statistics, the demographic characteristics of the respondents (level of education, age, gender) and the variables studied in the research were described. In the data analysis using SPSS software and covariance analysis, the results of the experimental and control groups in the post-test and pre-test stages and the follow-up stages were obtained and compared with each other. After collecting the data, the normality test was used, and after that, Cronbach's alpha coefficient was used to show the reliability of the questionnaires. Finally, Spearman's correlation test was used to test the hypotheses. The error level of all tests was 0.05, and the results were accepted with a confidence level of 95%.

Evaluation of depression: In this research, the depression questionnaire of Goldberg (1972) was used to measure the level of depression. This questionnaire has 18 questions and its purpose is to evaluate the level of depression disorder or the possibility of suffering from it. Each

Table 1 protocol of 14 sessions of positive thinking psychology training

Session number	The content of the session	Description
1	Orientation	Lack of positive resources perpetuates depression: <ul style="list-style-type: none"> ▪ Discuss the role of absence or lack of positive emotions, abilities of character, and meaning in the continuation of depression and emptiness of life. ▪ The framework of positive psychology, the therapist's role, and the client's responsibilities are discussed.
2	Obligation	Determine the specific ability: <ul style="list-style-type: none"> ▪ Clients determine their special abilities from a positive introduction and discuss the situations in which these special abilities have helped them in the past. ▪ Three paths leading to happiness (pleasure, commitment, meaning) are discussed.
3	Obligation/pleasure	Cultivating special abilities and positive emotions: <ul style="list-style-type: none"> ▪ The development of special abilities is discussed. Clients are prepared to form specific, objective, and attainable behaviors to develop specific capabilities. ▪ The role of positive emotions in well-being is discussed.
4	Pleasure	Good memories vs. bad memories: <ul style="list-style-type: none"> ▪ The role of good and bad memories is discussed in terms of their role in maintaining depression symptoms. ▪ Clients are encouraged to express feelings including anger and bitterness. The effects of staying in a state of anger and bitterness on depression and well-being are expressed.

Session number	The content of the session	Description
5	Pleasure/ Commitment	Forgiveness is introduced as a powerful tool that can transform anger and bitterness into neutral emotions and even positive emotions for some people.
6	Pleasure/ Commitment	Acknowledgment: Gratitude is discussed as a lasting thanks, and good and bad memories are highlighted again with an emphasis on gratitude.
7	Pleasure/ Commitment	Interim review of treatment: <ul style="list-style-type: none"> ▪ Homework, forgiveness, and gratitude are both tracked. This kind of work requires more than one session. ▪ The importance of positive emotions is discussed. ▪ Clients are encouraged to bring and participate in discussions about the blessings journal. ▪ Objectives related to specific capabilities are reviewed. ▪ The process and progress are discussed in detail. Clients' feedback about treatment benefits is called and discussed
8	Meaning/ commitment	Contentment vs. Maximization: <ul style="list-style-type: none"> ▪ Contentment (good enough) versus maximization is discussed in the context of pleasurable laborious work. ▪ Contentment is encouraged by commitment to maximization.
9	Pleasure	Optimism and hope: Clients are led to think about the time they fail at an important task when a big plan goes awry and when they are not accepted by someone. <ul style="list-style-type: none"> ▪ Clients are asked to notice what other doors open when one door closes.
10	Commitment/ Meaning	Love and attachment: <ul style="list-style-type: none"> ▪ Active response and constructive discussion. Clients are invited to identify the special capabilities of other people with meaning for them.
11	Meaning	Genealogy of abilities: <ul style="list-style-type: none"> ▪ The importance of identifying the abilities of family members is discussed.
12	Pleasure	Sense of taste: <ul style="list-style-type: none"> ▪ The sense of taste is introduced as the awareness of pleasure and its intentional creation in the past. ▪ Pleasant toil is expressed as a possible threat to the sense of taste and how to protect against it.
13	Meaning	The gift of time: <ul style="list-style-type: none"> ▪ Regardless of financial situation, appreciative clients bring one of the greatest gifts, the gift of time. ▪ Ways of using special abilities to offer the gift of time in service to another person much more than oneself are discussed.
14	Coherence	Perfect Life: <ul style="list-style-type: none"> ▪ The concept of a complete life that integrates pleasure, commitment, and meaning is discussed. ▪ Clients complete the tests before the end of the session. ▪ The progress is reviewed, and the benefits and durability of capabilities are discussed.

of the statements is scored in a 5-point range. The validity of this questionnaire was conducted on 40 female English students, and its validity value was 0.653, and its reliability value was 0.795 through Cronbach's alpha, so the validity and reliability of this questionnaire have been confirmed.

Assessment of anxiety: In the present study, the Spielberger test questionnaire (1983) was used for the anxiety variable. The Spielberger Anxiety Questionnaire has 23 questions, and its purpose is to measure different dimensions of social humiliation anxiety, cognitive error, and tension. Its response range is of Likert type. The validity and reliability of this questionnaire were also obtained by Spielberger values of 0.598 and 0.741, which shows its approval.

Self-efficacy assessment: Self-efficacy questionnaire was used to measure self-efficacy. This questionnaire was designed by Sherer and Mardox (1982). This scale measures three aspects of behavior, including the desire to initiate the behavior, continuing efforts to complete the behavior, and resistance to facing obstacles. Sherer et al.'s general self-efficacy scale has 17 items. Cronbach's alpha test was used to test the reliability of the questionnaire. Based on this, the reliability of self-efficacy questions was obtained as 0.857. The value of these statistics shows that, firstly, the questions have a high correlation with each other, and secondly, the research questionnaire has high reliability.

Results

Of the participants (recovered patients with COVID-19), 22 people (equivalent to 55%) were men and 18 (equivalent to 45%) were women. About 15% (6 respondents) were in the age group of 20 to 25 years, 15 (equivalent

to 37.5%) were in the age group of 25 to 35 years, 15 (equivalent to 37.5%) were in the age group of 35 to 45 years, and finally, 4 people (equivalent to 10%) were in the age group of 45 years and above. Of them, 13 people (32.5%) had a diploma, 13 (equivalent to 32.5%) had postgraduate education, 10 (equivalent to 25%) had a bachelor's degree, and four people (10%) had a postgraduate education and above. About 30% (12) of the respondents were employees. Also, 33 of the participants (57.5%) were employed and 5 (equivalent to 12.5%) were unemployed. Also, 7 of them (17.5%) were in mild severity, 26 (65%) had moderate type of disease, and 7 of them (17.5%) had severe disease. Also, 33 of the respondents (82.5%) had first visited the hospital and then were quarantined at home until the end of the illness, 7 (17.5%) were admitted to the hospital. Of them, 13 (32.5%) said that the reason for their illness was to underestimate the disease, 3 (5.7%) attributed it to their job, 16 (40%) found the most important reason for their illness to be non-observance of health protocols, 6 (15%) have considered excessive use of public vehicles as the most important reason for contracting this disease. The results of the Kolmogorov-Smirnov test showed the normality of the data ($p=0.38$ for positivity, $p=0.71$ for self-efficacy, and $p=0.51$ for depression). For this purpose, the parametric test of covariance analysis was used to check the hypotheses of the research.

The contents of Table No. 2 show that the mean and standard deviation in the pre-test and Follow-up stages are significantly different from the post-test stage. Also, the mean and standard deviation of the control group are lower than in the experimental group. The results show that positive thinking training affected the self-

Table 2. Mean and standard deviation in the two stages of post-test and pre-test and Follow-up in two experimental and control groups

Control Group			Examination Group		
Number of samples	The standard deviation	Mean	The standard deviation	Mean	-
pre-exam	20	2	0/36	2/65	7/14
post-test	20	1/98	0/36	2/54	6/60
Follow-up	20	1/76	0/36	5/74	6/20
Total	40	4/117	1/80	8/193	20/94

efficacy of students who recovered from Corona in Corona conditions.

According to Table 3, the significance level of all tests and the possibility of using covariance analysis is confirmed. The results of the table show that there is a significant difference between the experimental and the control groups for teaching positive thinking on the self-

difference between the control and experimental groups in the effectiveness of positive thinking training on the self-efficacy of patients who have recovered from Corona in Corona conditions ($p < 0.005$, $f = 7/45$).

The contents of Table 5 show that the mean and standard deviation of the pre-test and Follow-up stages are significantly different from the

Table 3. The results of covariance analysis, the effect of positive thinking training on the self-efficacy of students recovered from Corona in Corona conditions

Test name	F	Value	P*
Hotelling's work	10/36	0/90	0.001
Pillai effect	9/85	0/78	0.001

efficacy of students who have recovered from Corona in the post-test phase compared to the pre-test phase and Follow-up ($p < 0.001$, $f = 9/85$)

post-test stage. Also, the mean and standard deviation of the control group are lower than in the experimental group. The results show that

Table 4. The results of covariance analysis, determining the difference between the two experimental and control groups and the effect of positive thinking training on the self-efficacy of students who have recovered from Corona in Corona conditions

Dependent variable	sum of squares	free degree	mean square	f	P*Dependent variable
Efficacy	109.325	3	321/101	7/45	0.005

Table 5 Mean and standard deviation of positive thinking training on reducing depression of students recovered from Corona under Corona conditions in two stages of post-test and pre-test and Follow up in two experimental and control groups

	Examination Group		Control Group		
	Mean	The standard deviation	The standard deviation	Mean	- number of samples
pre-exam	3/14	3/31	4/53	7/87	20
post-test	6/60	5/31	4/40	3	20
Follow-up	6/20	4/31	4/94	3/4	20
Total	15/94	12/93	13/81	13/91	40

According to Table 4, there is a significant

positive thinking training has been effective in

reducing the depression of patients recovered from Coronavirus.

According to Table 6, the significance level of all tests confirms the possibility of using covariance analysis. The results of the table show that there is a significant difference between the two experimental and control groups for teaching positive thinking to reduce depression

stage. Also, in the control group, the mean and standard deviation are lower than in the experimental group. The results also show that positive thinking training has been effective in reducing the anxiety of students who have recovered from Corona in Corona conditions.

According to Table 9, there is a significant difference between control and experimental

Table 6. The results of the covariance analysis test, the effect of positive thinking training on reducing the depression of students who have recovered from Corona in Corona conditions

Test name	F	Value	P*
Hotelling's work	10/30	0/01	0.000
Pillai effect	25/41	0/60	0.000

in patients who have recovered from Corona in the post-test phase compared to the pre-test and Follow-up phases ($p < 0.005$, $f = 25/41$).

According to Table 7, there is a significant difference between the control and experimental groups ($p < 0.005$, $f = 7/69$).

The results of Table 8 show that the mean and standard deviation of the pre-test stage are significantly different from the post-test

groups in teaching positive thinking to reduce the anxiety of patients who have recovered from Corona in Corona conditions ($p < 0.005$, $f = 8/21$).

Discussion

This research was conducted with the aim of the effect of positive thinking on depression and anxiety and self-efficacy of recovered students from Coronavirus. The first finding showed that positive thinking training has a positive effect

Table 7. The results of covariance analysis, determining the difference between the two experimental and control groups, and the effect of positive thinking training on reducing the depression of students who have recovered from Corona

Dependent variable	sum of squares	free degree	mean square	F	P*
Depression	15/147	3	34/178	7/96	0/00

Table 8. Mean and standard deviation of positive thinking training on reducing the anxiety of students who have recovered from Corona under Corona conditions in two stages of post-test and pre-test and Follow-up in experimental and control groups.

Control Group			Examination Group		
Number of samples	Standard deviation	Mean	Standard deviation	Mean	
pre-exam	2/20	4/47	3/80	5/87	20
post-test	2/15	1/12	3/85	5/60	20
and Follow-up	2/10	2	3/91	4/20	20
Total	6/45	5/59	11/56	15/67	40

Table 9 of the results of covariance analysis, determining the difference between the two experimental and control groups and teaching positive thinking to reduce the anxiety of students who have recovered from Corona

Dependent	sum of squares	free degree	mean square	F	variable P*
Anxiety	365/147	3	78/19	8/21	0.000

on the self-efficacy of recovered Coronavirus patients. These findings are consistent with previous research (Salari et al., 2020; Asghari Rad and Shahriari, 2014; Delaware 2009; Dishman et al., 2019). They showed that positive thinking increases people's self-efficacy. It is significant to pay attention to the characteristics and positive aspects of behavior instead of focusing on weaknesses and negative aspects of behavior. When a person has a positive evaluation of himself and others and has a life, we must make them feel more valuable. For them to reach such a point of view, they should be aware of their positive qualities, abilities, beauties, and special talents and respect them and feel satisfied with having these qualities (Bandura, 2001). Also, teaching positive thinking skills helps them to know themselves better and to be curious about their opinion about themselves and the world (Omidi & Rasouli, 2018).

In teaching optimism and positivity, people are encouraged to recognize positive and good experiences, to recognize their role in increasing and improving their self-esteem, and to gain the ability to recognize the positive aspects of others. They also learn to take an active position in the world and shape their lives personally rather than passively accepting whatever comes their way (Jehangard, 2016). Positive thinking helps a person to achieve more success in life and work environment compared to what others expect from him/her. In explaining the above results, it can be said that it is significant to pay attention to the characteristics and positive aspects of behavior instead of focusing on the weaknesses and negative aspects of behavior. A person with a positive evaluation of himself, others, and life feels more valuable. For them to reach

such a point of view, they should be aware of their positive qualities, abilities, beauty, and special talents respect them, and feel satisfied with having these qualities. Also, teaching positive thinking skills helps them to know themselves better and to be curious about their opinion about themselves and the world. In teaching optimism and positivity, people are encouraged to recognize positive and good experiences to recognize their role in increasing and improving their self-esteem and gain the ability to recognize the positive aspects of others. They also learn to take an active position in the world and shape their lives personally rather than passively accepting whatever comes their way. Positive thinking helps a person to achieve more success in life and work environment compared to what others expect from him.

The second finding of the present study was that positive thinking reduces depression. These results are consistent with the research of Vegans and Vickers (2002), Zhang (2007), Levin and Nderpool (1987), and Hassan Shahi (2002). Optimistic people show stability and self-confidence in facing stressful events, tend to consider positive possibilities in the future, and use more problem-oriented coping strategies to face problems (Litsi, 2021). Positive beliefs have a positive relationship with different dimensions of health and play a crucial role in preventing the occurrence of physical and mental disorders and increasing the level of mental health. By controlling our mind and attracting it towards positive thinking, we can dramatically improve our overall performance and happiness.

Positive thinking is a way of thinking that enables a person to have a proper understanding of his and others' attitudes feelings, interests,

and talents, and to make the best and wisest decision by maintaining calmness and coolness. Positive thinking means being positive in addition to being positive with other people. Compromising with others leads to establishing good relations, and on the other hand, the better your relations with others, the more emotional and emotional flexibility you will have (Sadat Jafari Tabatabai et al., 2018). Brati (2008) believes that when we have negative thoughts in our head, we repeat them several thousand times every day, willingly or unwillingly; as a result, negative thoughts become stronger and occupy more space in the mind. Finally, they take the entire part of thought production under their supervision and give a negative nature to our thoughts. With this process, without wanting to and without knowing it, we make a huge part of our abilities (potential and actual) ineffective and waste it in vain; as a result, we are impatient, lack appetite, disturbed, sleepless, depressed, etc. The simple poisons of worry, anger, fear, failure, and negativity lead people to illness and destruction. Man always strives to survive and live better, in this movement, the most important issue is to benefit from positive thinking, and this effort leads man to the home of peace and comfort of body and soul (Sadat Zare et al., 2016). Optimistic people show stability and confidence in facing stressful events, tend to consider positive possibilities in the future, and use more problem-oriented coping strategies to face problems.

The third finding showed that positive thinking decreases anxiety. The results of the current research are aligned with the previous research of Haji Hosni et al., 2012, Nazari et al., 2018; Mousavi et al., 2015; Saadati, 2013; Bill Gol and Bayram, 2018; Eagleson, 2016). Litsi

believed that optimistic thoughts act as a shield against depression of life scores and anxiety and optimism (Levin & Vanderpool, 1987). In explaining these findings, Eagleson's study (2016) showed that thinking in the case of positive results reduces the amount of worry and anxiety and increases people's understanding and ability to adapt to it (Eagleson et al., 2016). Rajandram (2013) states that, in training the intervention group, the amount of stress in this group was significantly reduced compared to the control group before the intervention. This means that positive thinking reduces the level of stress in patients.

Conclusion

The way of contracting various infectious diseases throughout history has been one of the most serious threats to human health, the most recent of which is the emerging virus of COVID-19. The World Health Organization (2020) has introduced this disease as a major threat to physical and mental health because the outbreak of the COVID-19 disease has led to changes in the daily and normal life of families that affected the lifestyle of families. By affecting people's mental health behavior, the COVID-19 disease has led to the spread of anxiety, depression, and job burnout among medical staff, especially nurses. In general, the spread of COVID-19 can lead to feelings of insecurity, anxiety, fear, and depression in nurses and bring many mental health problems. The results of Ling et al.'s (2020) research showed that anxiety and depression symptoms are present among COVID-19 patients and are more prevalent in people who are at high risk (wang et al., 2020). Also, the results of Paz et al.'s research (2020),

titled *Anxiety and Depression in COVID-19 patients*, confirmed the presence of anxiety and depression in them (Paz et al., 2020). The results of Zarin Taj Hosseinzadeh's research (2020), entitled "The level of stress, anxiety, and depression among healthcare workers during the COVID-19 epidemic" reported the normal levels of depression, anxiety, and stress in these people (Hosseinzadeh et al., 2020). The results of the research of Salari et al., titled "Anxiety and depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis" showed that people suffering from coronavirus not only suffer from physical problems but also mental disorders after a while. The coronavirus affects mental health. It also affects patients (Solari et al., 2020).

The goal of positive thinking is for people to have an honest view of themselves, to accept themselves, and to be able to overcome the worries and stresses that exist in everyday life (Sabrina Kepka & Cédric Baumann, 2013). In positive thinking, people deal with problems in the best possible way and try to accept reality (Brydon et al., 2009). Strengthening personal perceptions can lead to an increase in a person's positive self-descriptions and reduce the level of depression. Positive thinking and positive thoughts reduce the level of depression, stress, and anxiety; therefore, psychological interventions, especially positive psychological topics, include education. Strategies to fight against negative thoughts and positive mental imagery seem necessary to increase the power of adaptation to the disease and to face the stressful factors caused by it (Zhu, Wei & Niu, 2020).

In conclusion, it can be said that teaching positive thinking skills has been effective and has increased self-efficacy and reduced anxiety

and depression in patients who have recovered from Corona, and these results are consistent with previous studies in this field (Mehafarid, Khakpour, & Jajarmi, 2015).

When a person has a positive evaluation of him/herself, others, and life, he/she feels more valuable. For them to reach such a point of view, they should be aware of their positive qualities, abilities, beauty, and special talents respect them, and feel satisfied with having these qualities (Rajkumar, 2020). Also, teaching positive thinking skills helps them to know themselves better and to be curious about their opinion about themselves and the world. In the education of optimism and positive thinking, people are encouraged to recognize positive and good experiences and their role in increasing and improving their self-esteem and acquire the ability to recognize the positive aspects of others. They also learn to take an active position in the world and shape their lives personally rather than passively accepting whatever comes their way. Positive thinking helps a person to achieve more success in life and work environment compared to what others expect from him (Yang, Wu, & Hou, 2020).

The current research also faces limitations, amongst others, Lack of available time, the number, and unwanted variables. It is suggested that in future research, psychological rehabilitation based on teaching positive thinking skills should be studied along with other methods of psychological interventions to check the effectiveness of this program in different situations. Also, women have a higher percentage of the participants in the present study, so It is recommended to get clearer results in future research to evaluate the role of gender in the relationships between the variables of the present study (Pui Hang, Edmond, Bryant, Hung,

2020). One of the limitations of the current research was the individual differences and how to adapt to the disease, mental, and emotional conditions of the researched units. Considering that positive thinking has positive effects on mental health. So it is suggested to conduct studies in other groups, especially patients with chronic diseases, with a larger sample size and on other variables such as quality of life, and self-esteem (Zhu, Wei & Niu, 2020).

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