

THE EFFECTIVENESS OF HYPNOTHERAPY ON REDUCING THE PERCEIVED STRESS AND DEATH ANXIETY IN CARDIOVASCULAR OUTPATIENTS

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ABSTRACT

This study generally aimed to investigate the effectiveness of hypnotherapy on reducing the perceived stress and death anxiety in cardiovascular outpatients. The research project was of pre-test and post-test type with the control group. The research sample consisted of 20 cardiovascular outpatients, selected using the available and volunteer sampling method, and divided into two groups of treatment and control. In order to measure the perceived stress, the perceived stress questionnaire was used and in order to measure the death anxiety, the death anxiety inventory was applied. ANCOVA was considered for data analysis. After random selection of the control and treatment groups, pre-test was administered to both groups and then hypnotherapy intervention was presented in eight sessions for the treatment group. At the end of the treatment program, post-test was administered to both groups. The results showed that hypnotherapy reduces the perceived stress and death anxiety in cardiovascular outpatients in treatment group more than the control group.

KEYWORDS: Hypnotherapy, Perceived Stress, Death Anxiety

INTRODUCTION

One of the most parts of the body is the heart and a heart disorder causes the perceived stress and anxiety (Jiemz, 2009). Heart disease is one of the most common diseases that are prevalent in the different communities. A high number of these patients are hospitalized and due to their relative failure, communities undergo economic losses. Literature shows that psychosocial and emotional factors affect the emergence and development of the heart disease more than ever before. Cardiovascular diseases cause the premature mortality, threaten the millions of people in the developing and industrial countries every year, and result in losing the billions of dollars due to the mortality and failure (Catson and Far, 2014). Some scholars believe that heart diseases in low age are increasing more and more in Iran (Shafee, 2011). Stress is one of the obvious problems of these kinds of patients. According to Kononovas (2013), there is a relationship between stress and environmental cognitive characteristics. He believes that stress is greatly affected by the physical and mental conditions. It originates from the external environment and it is perceived in a variety of ways by different people. People's perception may affect their mental capacities, depending on the extent to which a given situation may be stressful. On the other hand, death anxiety is one of the factors that cause the mental imbalance of the patients. This disease due to its specific nature and resulting mortality induces the death anxiety more than other kinds of diseases (Haletroof, 2013). However, many scholars emphasize on the powerful mediating role of the appropriate interventions for reducing the stress and anxiety as well as improving the quality of life of these patients. One of the most effective treatment protocols for this kind of patients is hypnotherapy (Aldas, 2014).

Hypnotherapy is defined as a case of the focal focused attention, high suggestibility, and reduced environmental awareness in which cognitive assessments of the subject change into the relative suspension. Involuntary and automatic induced movements and senses are observed during the hypnotherapy. Normal perceptions of the subject are changed and replaced by the induced perceptions. Entering or exiting hypnosis occurs during few seconds. There is a strong and sensitive relationship in this kind of therapeutic intervention and the critical judgment of the subject is suspended. This high focus can be actively arranged and used for achieving the treatment goals (West, 2015). Hypnotism-based treatment may dramatically affect the patients. Hypnotism is one of the treatment methods that are effective in solving the cognitive problems (Patterson *et al.*, 2007). Hypnotherapy is a kind of advanced focus in which people concentrate on a particular stimulation and does not pay attention to other stimuli such as environmental or physical ones (Moghtaderi, Mirzamani and Bahrami, 2012). West (2015) in his study investigated the effectiveness of the hypnotherapy on quality of life and perceived stress in heart patients. The results showed that hypnotherapy after 12 sessions for the patients caused the difference in posttest of the perceived stress and quality of life of the heart patients.

This showed that hypnotherapy in heart patients improves the quality of life and reduces the perceived stress. Aldas (2015) in his studies showed that hypnotherapy reduced the negative met cognitive beliefs regarding the uncontrollable anxiety, depression, stress, and death anxiety of heart diseases. Jan (2014) studied the effectiveness of hypnotherapy on stress and anxiety for 14 weeks of treatment intervention and conducted a follow-up study on the patients. He concluded that hypnotherapy reduces the stress and anxiety levels of the treatment group more than the control group. As a result, hypnotherapy may be considered as an effective treatment approach in reducing the stress and anxiety of the patients. Anderson (2015) in his study investigated the effectiveness of the treatment hypnotism on flexibility of action, quality of life and perceived stress in cardiovascular patients. The research sample included 25 people. The results demonstrated that therapeutic hypnotism after 12 sessions in the treatment group increases their flexibility of action and quality of life and reduces their perceived stress. Consequently, therapeutic hypnotism is considered effective on increasing the flexibility of action and quality of life as well as decreasing the perceived stress of the patients. Cardiovascular patients perceive a high rate of stress due to the mortality resulting from this disease and suffer from death anxiety, thereby reducing their quality of life. Therefore, investigation of the effective treatments that solve this kind of problems may positively affect the mental and physical health of the patients. This study aims to investigate the effectiveness of the hypnotherapy on reducing the perceived stress and death anxiety on the cardiovascular outpatients.

MATERIALS AND METHODS

Method

This is a quasi-treatment study (pretest – posttest with equal control group). The statistical population included all cardiovascular outpatients who had referred to the Cardiology Department of Rasht Hospital from November 2014 to May 2015. The research sample consisted of 20 cardiovascular outpatients that were selected using the available and volunteer sampling and randomly divided into two groups of 10 patients. For the aim of this study, the patients who suffered from the cardiovascular diseases for 6 months and achieved the determined score for the perceived stress questionnaire (54-75 for high-perceived stress) and death anxiety questionnaire (10-14 for high death anxiety) in both treatment and control groups were selected.

Research tools

Perceived Stress Questionnaire:

This questionnaire was developed by Cohen *et al.*, (1983) for determining the rate of the stress in certain situations of people's life. Respondents should express their opinions about the uncontrollable, unpredictable, and problematic situations of life. The questionnaire contains 14 questions and the minimum and maximum scores for the perceived stress are 14 and 70, respectively. The validity and reliability of this scale have been reported 0.75 and 0.72, respectively, using the content analysis (Asghari *et al.*, 2013).

Death Anxiety questionnaire:

This questionnaire was developed in 1970 by Templer and it is a useful tool for measuring the death anxiety and fear. This scale consists of 15 questions, which is administered with no time limit. Respondents are asked to answer with yes or no. the score scale ranges from zero to 14. The top score shows the high level of death anxiety and fear. This scale is of high reliability (Templer, 1970). Templer and Dotson (1970) estimate the reliability of the test as 0.83% using the retest procedure. Tomás-Sábado and Gómez-Benito (2005) reported the reliability of this test as 0.94 after two weeks using the retest procedure.

Implementation of Research

After referring to the hospital, the Heart Institute and Cardiovascular Department of Heshmat Hospital, necessary arrangements were made by hospital officials and with permission to conduct the research in cooperation with the head nurse, a list of hospitalized patients with cardiovascular disease was prepared. After consulting with the supervisor and identifying the people who had been hospitalized from mid-Forwarding in the hospital and could attend the meetings, the patients were individually interviewed. Then, 20 cardiovascular patients who volunteered to attend the meetings and research process were selected using the available and volunteer method and randomly divided into two groups of 10 people. Afterwards, one room was considered for holding the therapy sessions in collaboration with hospital and cardiology department. After introducing, necessary explanations were individually presented. Before therapeutic intervention (hypnotherapy) in the control and treatment groups, pre-test of perceived stress and death anxiety was performed. Hypnotherapy program was implemented based on Handbook of Hypnotic Suggestions and Metaphors by

Hammond, translated by Iranian Scientific Society of Clinical Hypnosis (2011) for 8 sessions of 45 to 60 minutes on the treatment group (see Treatment Protocol, p. 81). Treatment program was implemented for two sessions per week within 45 days, because one session (sixth session) was cancelled due to the heart problem of three patients of treatment group and led to two-day interruption of meeting. At the end of the sessions and the intervention, post-test was performed on both control and treatment groups. Then, the package and brochures of stress skills were offered to the control group by communicating with them, and it was decided to hold hypnotherapy sessions for control group when appropriate. Finally, the results were analyzed.

Hypnotherapy Sessions

In this study, hypnotherapy intervention was carried out based on the *Handbook of Hypnotic Suggestions and Metaphors* by Hammond, translated by *Iranian Scientific Society of Clinical Hypnosis* (2011) for 8 sessions of 45 to 60 minutes on the treatment group that is outlined here:

Session 1: pretest, introducing and investigating the physical and mental status of the patient and familiarizing with the limitations and probable disease of the referees, familiarizing with patients' interests in order to use them in creating the mental spaces in practical stage of the hypnosis (45 minutes)

Session 2:

First part: a conversation with referees and changing their false and illogical beliefs on hypnosis (removing the Partak does not mean the change of the false beliefs on hypnosis) and answering the possible questions about hypnosis and hypnosis treatment;

Second part: multiple physical tests: eye circulation, approaching the fingers to each other, moving hand up and down, feeling of being withdrawn due to the awareness of the hypnotic susceptibility (60 min).

Session 3: relaxation and experience of hypnosis space in order to attract the patients' attention and their more collaboration in the process of hypnosis (45 minutes).

Session 4: hypnosis and deepening by verbal suggestions and repeated exit technique of the hypnosis and getting the patient into a space deeper than the ecstasy (45 minutes).

Session 5: hypnosis, deepening, and suggestions for reducing the anxiety and stress of the patients (45 minutes).

Session 6: Hypnosis, deepening, and ego-enhancement using the hypnotic metaphors related to the ego enhancement (60 minutes).

Session 7: hypnosis, deepening, and association of the status of the patients by themselves in recovery time in order to increase their motivations and association of the status of the patients by themselves at recovery time (60 minutes).

Session 8: hypnosis and deepening and repeating the applied metaphors in the previous session in order to influence the referees and finishing the treatment process, and conducting the posttest (60 minutes).

In order to analyze the data, SPSS-22 software was used and the results were reported in the form of descriptive and inferential statistics. For comparing the significant difference in the treatment group and the control group, covariance test was used.

RESULT

Descriptive results showed that in the treatment group, cardiovascular patients above 46 years with 20% were the minimum percentage and cardiovascular patients of 35-40 and 41-45 with 40% were the maximum percentage of the research sample. In addition, cardiovascular patients above 46 years with 20% were the minimum percentage and cardiovascular patients of 41-45 with 50% were the maximum percentage of the research sample. Furthermore, the descriptive findings of this research include frequency, mean, standard deviation, and the number of sample subjects for the variables that were summarized in table 1.

Table 1: Mean and standard deviation of perceived stress and anxiety death scores of treatment and control groups in pretest and posttest

Variable	Groups	N	Pre-test: Mean ± SD	Post-test: Mean ± SD
Perceived Stress	Test	10	12.01±0.94	7.60±1.07
	Control	10	12.30±1.41	11.70±1.25
Death Anxiety	Test	10	65.11±6.32	34.10±9.14
	Control	10	67.10±5.27	67.40±5.64

This part of the study investigates the hypotheses. All hypotheses are presented with their results. Before analyzing the data related to the hypotheses, they are investigated in order to show that the research data estimate the covariance analysis. Therefore, the hypothesis of homogeneity of variances was evaluated. Kolmogorov-Smirnov test results for the hypothesis of the normal distribution of the scores in society and test results of hypothesis analysis of homogenous regression slopes for the variables of perceived stress and death anxiety are presented in tables 2 and 3. In addition, Levene test was used for hypothesis of equal variances of the research variables and the results are summarized in the table 4.

Table 2: Results of the Kolmogorov-Smirnov test on the presumption of the normal distribution of scores

Normal distribution	Groups	Kolmogorov– Smirnov Statistics	Smirnov Sig	Groups	Kolmogorov– Smirnov Statistics	Smirnov Sig
Perceived Stress	Test	0.16	0.13	Control	0.18	0.20
Death Anxiety	Test	0.18	0.15	Control	0.19	0.18

As shown in table 2, zero hypotheses for the normal distribution of scores of two groups of variables of perceived stress and death anxiety is confirmed. The hypothesis of the normal distribution of the scores was confirmed in both treatment and control groups. Although, it is assumed that the variables in the covariance analysis should show the linearity for all data, it should be considered that het regression lines for each research group should be the same. With heterogeneous regression, covariance analysis is not recommended. Heterogeneity of the regression plays a key role in covariance analysis. It should be noted that posttests of perceived stress and death anxiety are considered as the dependent variables and their pretests were considered as the covariates. If covariates (pretests) and dependent variables (posttests) are equal in all operating levels (treatment and control groups), then there are heterogeneous slopes. The result will be insignificant interaction between the dependent variables and covariate. In the present study, analyze the heterogeneity of the regression slopes necessitates the equality between the covariates (pretests) and dependent variables (posttests) in all operating levels (treatment and control groups).

Table 3: Results of analyzing the heterogeneity hypothesis of the regression slopes of research variables of two groups in the society

Variable	Source Changes	F	Sig
Perceived Stress	Interaction Group in Pre-	1.24	0.47
Death Anxiety	test	1.08	0.53

As shown in table 3, F-value of variables of the perceived stress and death anxiety is not significant. Therefore, the hypothesis of homogeneity of regression is confirmed.

Table 4: Results of Levine test on the hypothesis of variances equality of research variables scores of two groups in the society

Variable	F	dF1	Df2	Sig
Perceived Stress	0.04	1	18	0.82
Death Anxiety	0.16	1	18	0.74

As shown in table 4, Levene test is not significant of variables of perceived stress and death anxiety. Therefore, variance of two treatment and control groups is not significant of variables of perceived stress and death anxiety. As a result, the hypothesis of homogeneity of variances is confirmed and equality of variances of the two groups for all variables is zero and confirmed. This means that hypothesis of equality of variances scores in both treatment and control groups were confirmed. In order to investigate the hypothesis of analysis, covariance multivariate analysis (MANCOVA) was used. The results are summarized in the following tables.

Table 5: Results of multivariate analysis of variance in the mean scores of posttests of perceived stress and death anxiety in the treatment and control groups by controlling the pretest

Group	value	F	dF1	df2	P
Pillai's trace	0.90	74.79	2	15	0.0001
Wilks' Lambda	0.09	74.79	2	15	0.0001
Lawley–Hotelling Trace	9.97	74.79	2	15	0.0001
Roy's Largest Root Test	9.97	74.79	2	15	0.0001

As shown in table 5, by controlling the pretest, the significant levels of all tests indicate that there is a significant difference at least between one of the dependent variables (perceived stress and death anxiety) in cardiovascular outpatients in the treatment and control groups ($F=74.79$, $P<0.001$). In order to determine the difference based on the variables, two covariance analyses were conducted. The results are summarized in table 6. The effectiveness or difference rate is equal to 90%. In other words, 90% of individual differences in the post-test scores of the perceived stress and death anxiety of cardiovascular outpatients are related to the effectiveness of hypnotherapy. Statistical power is equal to one. It implies the fact that there is no possibility for the error II.

H1: hypnotherapy reduces the perceived stress of cardiovascular outpatients.

H2: hypnotherapy reduces the death anxiety of cardiovascular outpatients.

Table 6: Results of the ANOVA in the MANCOVA context on mean scores of the perceived stress and death anxiety of the treatment and control groups by controlling the pretest

Variables	Square	DF	Mean square	F	P	Eta-squared
Perceived Stress	86.30	1	86.30	65.13	0.0001	0.80
Death Anxiety	4789.80	1	4789.80	117.89	0.0001	0.88

As shown in table 6, there is a significant difference between cardiovascular outpatients in treatment and control groups by controlling the pretest ($F=65.13$, $P<0.001$). In other words, according to the average perceived stress of cardiovascular patients in the treatment group, hypnotherapy reduced the perceived stress in treatment group more than the control group. The effectiveness rate is equal to 0.80. It shows that 80% of individual differences in the scores of the perceived stress are related to the effectiveness of hypnotherapy. Therefore, the first hypothesis is confirmed. As shown in table 6, by controlling the pre-test between cardiovascular outpatients of treatment and the control groups, no significant difference in death anxiety was observed ($F=89.117$, $P<0.001$). In other words, according to the average of anxiety death in cardiovascular patients in the treatment group compared to the control group, hypnotherapy reduces the death anxiety in the treatment group. The effect is equal to 0.88. In other words, 88% of the individual differences in the scores of death anxiety are related to the effectiveness of hypnotherapy. Therefore, the second hypothesis is confirmed.

DISCUSSION AND CONCLUSION

This study aimed to investigate the effectiveness of the hypnotherapy on the perceived stress and death anxiety of the cardiovascular patients. In chapter 4, research data were analyzed. In this chapter, the findings related to the research hypotheses are explained and then, the research limitations and suggestions were presented.

H1: hypnotherapy reduces the perceived stress of cardiovascular outpatients.

As the results showed, by controlling the pretest, there is a significant difference between the cardiovascular outpatients in treatment and cardiovascular groups. In other words, hypnotherapy reduced the perceived stress of the treatment group with respect to the average perceived stress of the cardiovascular outpatients of the treatment group more than the control group. Therefore, hypothesis 1 is confirmed. The results of this study is consistent with Ghahreman's studies (2013) that showed using the hypnotherapy approach after 8 sessions on the treatment group resulted in the difference between the stress and anxiety of the cardiovascular patients in both control and treatment groups; however, he showed that there was a lower rate of stress and anxiety in the treatment group. The results of this study are consistent with Tahmaseb' study (2012) that showed hypnotherapy reduces the stress in treatment group more than the control group. The results of this study are consistent with Beigi' study (2012) that showed the positive effect of the hypnotherapy on reducing the perceived stress of the cardiovascular patients. The results of this study are consistent with Ghahreman's

study (2013) that demonstrated using hypnotherapy approach after 8 sessions on the treatment group showed the difference between the stress of the cardiovascular patients of the treatment and control groups, and there was a lower rate of stress in the treatment group compared to the control group. The results of this study are consistent with Tahmaseb's study (2012) that showed hypnotherapy reduces the stress and anxiety of the patients in the treatment group more than the control group. The results of this study are consistent with Salehi, Bostani and Saadat's study (2011) that concluded hypnotherapy after 10 sessions reduces the stress of the cardiovascular patients in the treatment group. The results of this study are consistent with West's study that showed hypnotherapy causes the difference in posttest of the perceived stress of the cardiovascular patients and showed that hypnotherapy in cardiovascular patients reduces the perceived stress. The results of this study are consistent with Anderson's study (2015) that showed hypnotherapy reduces the perceived stress of the cardiovascular patients. As a result, hypnotherapy is effective on reducing the perceived stress of the patients. The results of this study are consistent with Jan's study (2014) that concluded hypnotherapy reduces the stress and anxiety of the treatment group more than the control group. As a result, hypnotherapy is an effective approach in reducing the stress and anxiety of the patients. The results of this study are consistent with Catson and Far's study (2014) that showed treatment efforts influence greatly the emotional verbalization and stress in these patients. The results of this study are consistent with David's study (2013, quoted by Ghahreman, 2013) that showed treatment group of hypnosis after 12 sessions and a follow-up study for one month caused the difference of the score in posttest of the stress and anxiety of the patients. This difference showed that treatment intervention of hypnosis has a positive effect on reducing the stress and anxiety of the patients.

For clarifying this hypothesis, it can be said that cardiovascular patients perceive the stressful conditions of the disease due to the perception of the physical and mental challenges of the cardiovascular disease. These patients suffer from a high rate of anxiety due to the perception of the high rate of the disease stress that deteriorates their physical problems. However, this study showed that hypnotherapy reduces the perceived death of the cardiovascular patients. In addition, because hypnotherapy intervention in the cardiovascular patients changed the thinking templates and caused the ecstasy, it led to the lowest resistance of the patient's mind against the new ideas. Hypnotherapy using the suggesting the statements or mental imagery helped the patients to achieve new ideas and change their behaviors. The negative thoughts regarding the lack of resistance against the stressor challenges were discovered. It helped the patients achieve a better structural knowledge about their perceived stress and improve their potentials to encounter the problems and manage the stresses. This kind of treatment due to providing the patients with the multiple physical test techniques such as eye circulation, approaching the fingers together, moving hands up and down, the state of being withdrawn, awareness of the hypnosis suggestibility of the patient, and mental relaxation helped the patients to reduce their disease stresses. It also helped the patients to identify the symptoms of their perceived stress, increase their active role in solving the problems and encountering the stressors of the disease status, and improve their intrinsic resistance against the stress. Moreover, it improved the responsibility of the patients. It reduced the isolation against the stress and had a positive effect on increasing the level of welfare and hopefulness. Hypnotherapy treatment helped the patients to value any kind of resistance increase. Mental regularity caused the cognitive resistance of the patients against the negative perceived stress. Consequently, hypnotherapy helped the cardiovascular patients to identify and control stresses. Hypnotherapy treatment associated with pharmacotherapy is useful for these patients because it can positively affect the way of the managing the stress and lead to the gradual recovery and reduced stress of the cardiovascular patients. Therefore, hypnotherapy is effective on reducing the perceived stress of the cardiovascular outpatients.

H2: hypnotherapy reduces the death anxiety of cardiovascular outpatients.

The results showed that by controlling the pretest, significant difference between the cardiovascular outpatients in control and treatment groups was observed. In other words, hypnotherapy reduced the death anxiety in the treatment group with respect to the average death anxiety of the cardiovascular outpatients in the treatment group compared to that of the cardiovascular group. Therefore, the hypothesis 2 is confirmed. The results of this study is consistent with Ghahreman's studies (2013) that showed using the hypnotherapy approach after 8 sessions on the treatment group resulted in the difference between the stress and anxiety of the cardiovascular patients in both control and treatment groups; however, he showed that there was a lower rate of stress and anxiety in the treatment group. The results of this study are consistent with Khadem's study that reported the sessions of hypnosis treatment group reduced the anxiety in the treatment group more than the control group. The results of this study are consistent with Tahmaseb' study (2012) that showed hypnotherapy reduces the stress in treatment group more than the control group. The results of this study is consistent with Etamadi who investigated the effectiveness of hypnotherapy on mental health of cardiovascular patients

and showed that hypnotherapy reduces the anxiety, depression, inaction and physical problems and improves the mental health of the patients. The results of this study are consistent with Ghahremani's study (2013) that demonstrated using hypnotherapy approach after 8 sessions on the treatment group showed the difference between the stress of the cardiovascular patients of the treatment and control groups, and there was a lower rate of stress in the treatment group compared to the control group. The results of this study are consistent with Khadem's study (2013) who reported the sessions of hypnosis treatment group reduced the anxiety of the treatment group more than the control group. The results of this study are consistent with Tahmaseb's study (2012) that showed hypnotherapy reduces the stress and anxiety of the patients in the treatment group more than the control group. The results of this study are consistent with Etamadi's study that showed that hypnotherapy reduces the death anxiety of the patients. The results of this study are consistent with Pakzad's study that showed that hypnotherapy reduces the death anxiety of the patients. The results of this study are consistent with Males and Ander's study (2015) that investigated the effectiveness of hypnotherapy on death anxiety of cardiovascular patients and showed that hypnotherapy group reduces the death anxiety. The results of this study are consistent with Jan's study (2014) who concluded that hypnotherapy reduces the anxiety of the treatment group more than the cardiovascular group. Consequently, hypnotherapy approach is effective on reducing the anxiety of the patients. The results of this study are consistent with Adams and Tdey's study (2014) who concluded hypnotherapy could reduce the death anxiety in the treatment group more than the control group and cognitive behavioral treatment group is an effective treatment approach. The results of this study are consistent with Eric *et al.*, (2014) who showed that death anxiety has been effective after the treatment intervention and has reduced the death anxiety significantly.

For clarifying this hypothesis, it should be stated that cardiovascular patients encounter the emotional problems due to their physical and mental status. They consider death as an unavoidable phenomenon and experience anxiety. Keli (1995) explained that the main cognitive elements of death include attitudes, forecasting ability, and awareness of unavoidable death. There is a high rate of death forecasting in cardiovascular patients due to the negative attitude towards the disease, physical problems, and high mortality. Therefore, there is a high rate of death anxiety among the patients. However, hypnotherapy intervention helps the patients to analyze their mistakes and negative thoughts and affect the visualizations and disturbing pulses, which are related to the negative thoughts of death. It helps the patients to change their goals and reduce their negative thoughts in order to overcome the physical and mental threats. This kind of treatment helped the patients to change their beliefs and opinions about the death resulting from the disease and premature death due to the use of deepening techniques and inducing the suggestions in hypnotherapy and reduce their death anxiety. Negative thoughts and death anxiety were reduced by ego enhancement techniques using the hypnotic metaphors. This protocol reduced death anxiety of the patients – which caused the mental imbalance - more than the control group due to the hypnotherapy intervention. Therefore, hypnotherapy changes the negative thoughts about death using the meditation techniques and ego enhancement. This kind of treatment modifies the mental and physical emotions of the people and reduces the death anxiety by mental relaxing. Consequently, hypnotherapy intervention of the treatment group is effective on reducing the death anxiety of cardiovascular patients.

Limitations of the Study

One session of the treatment sessions was cancelled due to the heart problem of three patients in the treatment group that may influence the results of the study. Due to the nature of the disease and unavailable more patients, this study was conducted using a small size of the sample. Therefore, the results should be cautiously generalized. Due to the shortage of time and arrangement problems with patients, no follow-up study was conducted. Taking the prescribed medications for the patients was not controllable for the aim of this study. This study showed that hypnotherapy could be effective on reducing the death anxiety and perceived stress of the cardiovascular patients. Hypnotherapy protocol helped the patients using the deepening techniques and referees' associations about their status in recovery time due to the increased motivation and resulted in lower rates of the cognitive problems of the patients.

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