

Comparing the Effectiveness of Hypnosis and Cognitive-Behavioral Therapy (CBT) on the Management of Post-Traumatic Stress Disorder (PTSD)

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Abstract

Background: Post-traumatic stress disorder (PTSD) is prevalent in youngsters, teenagers, and grown-ups. It can happen alone or in comorbidity with different disarranges. A wide scope of psychotherapies, for example, hypnosis and cognitive-behavioral therapy (CBT) has been produced for PTSD treatment.

Objectives: In this study, we compare the effectiveness of hypnosis and cognitive-behavioral therapy in reducing post-traumatic stress disorder.

Methods: This research is done in the form of an experimental method. The research design is pre-test - post-test with a control group. The target population in this study consisted of 370 war veterans. The sample of the study consisted of 191 people who were randomly selected and answered the PTSD Checklist (PCL). Of the 86 respondents who achieved the highest score from the PCL questionnaire, 60 were randomly selected and divided into two experimental and one control group. One of the experimental groups; received 8 sessions of the CBT treatment and, the other group received 8 sessions Hypnosis and the control group continued their usual treatment. After the treatment sessions, post-test was taken from all participants. Data were analyzed by using ANCOVA in SPSS version 21.

Results: The results showed that there is a significant difference between the Hypnosis and CBT groups ($P < 0.01$). There was also a significant difference between the control and the CBT groups as well as hypnosis ($P < 0.01$).

Conclusions The aftereffects of the current examination indicated that hypnosis and cognitive behavioral therapy are successful in decreasing post-traumatic stress disorder. We additionally found that hypnosis is more effective than CBT.

Keywords: cognitive- behavioral therapy, hypnosis, posttraumatic stress disorder.

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1. Background

Posttraumatic stress disorder (PTSD) is a psychiatric illness caused by traumatic events, usually developed after exposure to trauma such as physical or sexual assault, injury, combat-related trauma, natural disaster or death, but also after witnessing or indirect exposure [1].

Post-Traumatic Stress Disorder (PTSD) is a kind of tension in individuals who have encountered a mishap. Like the military network and the veterans of the forced war. PTSD can be trailed by encounters, for example, dangers, fears or unsavory news, or occasions, for example, war, catastrophic events, serious mishaps, and the event of antagonistic occasions. It is related with debilitation of one's capacity to work, network, colleagues, and family, including work flimsiness, conjugal issues, troubles in child rearing, separate, etc. Upsetting occasions are a significant piece of the lives of veterans. Having a physical imperfection, rewarding it and being continually associated with any of these issues has a scope of worry for these individuals. Be that as it may, while intellectual helplessness goes before the upsetting occasion, the same number of those friends and family have not experienced legitimate treatment by having mental and stress pressures; in this manner, in view of examination, psychological treatment can assume a critical job in improving veterans' side effects [2].

It is important to utilize non-pharmacological strategies notwithstanding drug to diminish patients' pain and tension. Different strategies, for example, music treatment, study, knead, profound breathing, slow and standard, mental symbolism, video viewing, bio-input, unwinding, interruption, intellectual social treatment are such techniques [3].

Spellbinding is one of the most established of these techniques, with expanding proof of its viability in tension administration. Entrancing is an adjusted condition of awareness described by expanded acknowledgment of observation, the capacity to change recognition, and expanded limit with regards to separation that is utilized to control tension in post-horrendous pressure patients [4].

Incorporating the customary (conduct treatment) with the new strategy (psychological treatment) was not without issues and we have now understood that social change is more attainable and quantifiable than intellectual change (which is flimsy and fluctuating). Analysts and advisors are currently increasingly inspired by clarifications, understandings, desires, and fears of patients (customers) than at any other time. What's more, organize with them. Psychological treatment gives the setting to conduct treatment. This advancement mirrors the connection among phenomenological and intellectual treatment. A progression of chain forms during psychological social treatment meetings bring about a period point between meetings. That is, intellectual conduct treatment meetings are the way to starting passionate handling. This preparing is finished in the stretch between meetings (5).

The consequences of an examination directed to assess the adequacy of intellectual social treatment on the emotional wellness of post-horrendous pressure issue veterans, showed that psychological conduct treatment is a compelling clinical mediation in enhancing side effects of veterans with post-awful pressure issue and it can help improve their emotional well-being and personal satisfaction (6). The aftereffects of another investigation directed to assess the adequacy of CBT in patients with post-horrible pressure issue show that intellectual conduct treatment is compelling in decreasing the indications of PTSD patients (7). As of late distributed proof additionally proposes that entrancing is a powerful factor in controlling nervousness. The investigation of Matt et al., Effectiveness of Hypnosis-Based Pain Protocol on Major Burns in 46 Patients, demonstrated that spellbinding decreased agony

seriousness and nervousness, expanded narcotic viability, improved injury recuperating, and diminished expenses (9).

Plaskota et al., offer evidence that hypnotherapy can reduce anxiety in palliative care patients, as well as improving sleep and the severity of psychological and physical symptoms (10).

2. Objectives

Given the importance of the subject and what was said this study aimed to compare the effectiveness of cognitive-behavioral therapy and hypnosis in reducing the symptoms of post-traumatic stress disorder.

3. Methods

This research is done in the form of an experimental method. The research design is pre-test - post-test with a control group. The target population in this study consisted of 450 war veterans referred to Isar Hospital in Ardabil-Iran in 2019. The sample of the study consisted of 210 people who were randomly selected and answered the PTSD Checklist (PCL). Of the 90 respondents who achieved the highest score from the PCL questionnaire, 60 were randomly selected and divided into two experimental and one control group. One of the experimental groups; received 8 sessions the CBT treatment and, the other group received 8 sessions Hypnosis and the control group continued their usual treatment. After the treatment sessions, post-test was taken from all participants. Data were analyzed by using ANCOVA in SPSS version 21.

Ethical approval

Ethical approval was obtained from the institutional review board at the Ardabil University of Medical Sciences.

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3.1. Intervene method

3.1.1. A: cognitive-behavioral therapy:

It was run for 8 sessions in 90 minutes and within two and a half months.

Summaries of all sessions will be in this way:

Session one: A combination of Socratic dialogue and psychological education, motivation and understanding physiological thinking process.

Session two: we try to give awareness about major cognitive aspects of PTSD, cognitive distortions, and the characteristics of their thoughts.

Session three: we should teach participants that, these ideas have behavioral and emotional consequences which may be ineffective.

Session four: identifying negative schemas to clients.

Session five: introducing negative beliefs, and about their influence on each other, to the clients. We want them to prepare a list of beliefs to make a map (cognitive maps)

Session six: the purpose of this session is to make participants believe that their beliefs are changeable. By passing the time they could change their mind.

Session seven: we teach participants about logical analysis and benefit analysis.

Session eight: receiving feedback from all members of the group and trouble solving.

Our criteria to choose our participants:

Primary diagnosis of PTSD, patients without personality disorders, bipolar disorders, major depression, and psychotic disorders. The otherwise the case will exclude from the study.

3.1.2. B: Behavioral Hypnosis

This course is planned in eight sessions which was take over two months, hypnosis will be done by a psychologist who has completed basic and advanced hypnotherapy courses in the Iranian Scientific Society of Clinical Hypnosis. Behavioral hypnosis is arranged according to Joseph Wolpe approaches which includes regular desensitization and assertiveness training; Therapy sessions are held in individual way. Treatment protocol designed by this way:

Session One: Explain about hypnosis and correct misconceptions about it, also explain about PTSD to the participant and get written testimony.

Session two: Identify annoying symptoms, traumatic stimulates, flashbacks, and distressing dreams and classified them from mild to severe. (If participants need more explain about Hypnosis and PTSD they can get enough information about them.)

Session three: The participant is hypnotized, in the hypnosis trance mode we create a personal shelter for the participant in which the participant feels relax and comfortable. We also teach them self-hypnosis.

Session four: It is the continuation of the third session and the repairing dreams and nightmares.

Session five: In trance mood and safe shelter which we designed for the participant, the systematic desensitization starts from mild to severe based on the participant list.

Session six: Continue to desensitization and complete the list.

Session Seven: we called it forgiveness session, the participant forgiving themselves and those who caused this events in hypnosis mood and trance.

Session Eight: we did assertiveness training and we declared the end of treatment sessions.

3.2. Research Tools

3.2.1. Mississippi (Echelle) PTSD measure

This questionnaire has been developed. The items have been manipulated based on the Iranian culture in 2004 and included 39 items scored from 1 to 5 according to the Likert scale. The total score range was from 39 to 195. Cronbach's alpha coefficient was reported as 0.92 and test-retest reliability over a week was 0.91. Furthermore, concurrent validity of the questionnaire was measured via its correlation with the PTSD symptom list, that the resulting coefficient was 0.82 (14).

Data analysis

The data will be analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (ANCOVA) and with SPSS18 software.

4. Results

The investigation of covariance examination demonstrated that the covariance investigation test can be utilized. The consequences of Tables 1 and 2 show that there is a huge distinction between the mean post-traumatic stress disorder post-test of the three benchmark groups, Hypnosis and CBT.

1. There was a significant difference ($P < 0.01$) between the mean of Hypnosis group and the mean of post-traumatic stress disorder (CBT) group. This difference is for the benefit of the Hypnosis group.
2. There was a significant difference ($P < 0.01$) between the mean post-traumatic stress disorder in the control group and the mean post-traumatic stress disorder in the Hypnosis group. This difference is for the benefit of the Hypnosis group.
3. There was a significant difference ($P < 0.01$) between the mean of post-traumatic stress disorder in the control group and the mean of post-traumatic stress disorder in the CBT group. This difference is for the benefit of the CBT group.

The data in Table 2 show that the F ratio for the effect of application is statistically significant ($\text{Eta} = 0.754$, $P = 0.000$, $F = 61.01$ (2 & 41)). This shows that there is a difference between the three groups. In other words, there is a significant difference between the two experimental methods in reducing stress disorder with the control group. Since F is statistically significant, follow-up tests should be used. For this purpose, a pairwise comparison test called Custom Hypothesis is run with the Lmatrix command. Tukey's test was used to determine the significance level of these tests.

Table 1: Mean and standard deviation of study groups in pretest and posttest according to PTSD and paired comparison of two groups with Tukey post hoc test

Row	Groups	Pre-Test		Post-Test		HSD Tukey test	Sig
		Mean	SD	Mean	SD		
1	CBT	6/50	27/11	9/02	26/14	3>2	0/000
2	Hypnosis	22/82	9/48	20/13	5/92	2>1	0/000
3	Control	12/04	33/91	13/11	32/78	3>1	0/000

Table 2: Summary of Analysis of Covariance of PTSD in Experimental and Control Groups by Interaction Effect

Variable	Source	Sum of squares	df	Mean of squares	F	Sig	Eta
PTSD	Pre-test	4311/16	1	4311/15	653/12	0/000	0/953
	Between Groups	801/09	2	399/09	61/01	0/000	0/754
	Within Groups	272/04	41	6/63			
	Total	38665	45				

5. Discussion

According to the findings both Hypnosis and CBT training methods are effective in reducing post-traumatic (PTSD) symptoms and the effectiveness of the Hypnosis method is greater than the CBT method. These results are in line with the findings of Szigethy & Vermetten (2018) (15), Rotaru & Rusu (2016) (16), Moghtader et al

(2015) (17), Glaesmer et al (2015) (13), Untas et al (2013)(12), Badeleh et al (2013) (18) and Pourhamidi et al (2019) (11). In explaining this finding we can say a few points in analyzing the results and effectiveness of Hypnosis.

They found that therapeutic hypnosis was twice as effective as conventional psychotherapy, including CBT, EMDR. However, many researchers and clinicians have observed that hypnosis has a more effect. Especially when combined with cognitive-behavioral therapy. Hypnosis-based therapies offer twice the power of cognitive-behavioral therapies. Suspension of critical thinking in hypnosis makes the patient more persuasive to accept persuasive conversations in cognitive behavioral therapy. Group cognitive-behavioral hypnotherapy is generally similar to cognitive behavioral therapy and benefits from the principles[17,18].

In addition, Helmi et al .'s study, which aimed to evaluate the efficacy of both cognitive-behavioral unit therapy and cognitive-behavioral hypnotherapy in reducing anxiety in Iranian children, concluded that cognitive-behavioral hypnotherapy resulted in a greater reduction in anxiety than cognitive-behavioral therapy. This difference was significant[17].

Another result was that there was a significant difference between the mean of post-traumatic stress disorder in the control group and the mean of post-traumatic stress disorder in the CBT group. This means that cognitive-behavioral therapy has the effect of reducing the symptoms of traumatic stress disorder. Cognitive-behavioral therapy is based on the idea that psychological problems arise from our interpretation or evaluation of our situations, thoughts, and feelings, and behaviors; so the purpose of CBT is to help people through training in coping with distressing thoughts as well as reducing avoidance. Or other problematic behaviors. Ideally, if you can change someone, that change should be about evaluating his or her thoughts and environment (19). CBT is used to successfully treat a range of problems, such as anxiety disorders, depression, eating disorders, alcoholism, and drug abuse (20), which these results are consistent with the findings, Nixon and Bralo (2019) (6), Edwards Padmanabhanunni and Edwards (2016) (7), Myers et al(2011) (21), Beck et al (2009) (22), Kelly et al (2009) (23), Rothbaum (2006) (24), Mahmoudi-Gharai et al (2006)(25), Resick et al (2002) (26).

In clarifying the outcomes, it tends to be said that the psychological conduct approach stresses that the ideas are operationalized and approve treatment observationally. In this kind of treatment, the patient is assisted with recognizing contorted examples of thought and to distinguish their broken conduct. Customary conversations and accurately sorted out social undertakings are utilized to defeat these twisted musings and change their broken conduct. In certain parts of treatment, the accentuation is for the most part on social and on other psychological angles. A great part of the treatment depends on the methodology at this very moment, and the primary motivation behind treatment is to help the patient roll out the ideal improvements in their lives. In this manner, the accentuation on treatment is to give chances to new versatile learning just as to make changes outside the clinical setting. Critical thinking is a significant segment of treatment. All parts of the treatment are disclosed to the patient and the specialist and the patient attempt to collaborate and create procedures to manage correctly recognized issues. This methodology is for the most part dependent on self improvement and the objective of the specialist is to enable the patient to build up the abilities expected to understand current as well as comparative issues later on. The advisor ought to underscore the job of schoolwork and remember that a significant part of the treatment is done in regular daily existence. This implies the patient has everything talked about in the treatment meetings; Brings it without hesitation. The shared idea of remedial correspondence ought to be examined. The patient is

relied upon to effectively partake in treatment through social affair data, giving criticism on helpful methods, and proposing new methodologies. Data on the structure of treatment ought to likewise be given to the patient at this stage: Such as the quantity of treatment meetings and the area of the meetings and the length of treatment (19).

6. Conclusion

The aftereffects of the current examination indicated that hypnosis and cognitive behavioral therapy are successful in decreasing post-traumatic stress disorder. We additionally found that hypnosis is more effective than CBT.

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