



Effectiveness of Imagery Rescripting and Reprocessing Therapy on Insomnia, Nightmare and Suicide Ideation in Depressed Persons with Suicide Attempt History

Narjes Rahnama¹, Morteza Tarkhan², Javad Khalatbari³ and Ali Khalili⁴

¹Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran

²Payam Noor University, Iran

³Islamic Azad University, Ramsar Branch, Ramsar, Iran

³Razi Hospital, Rasht, Iran

Corresponding email: rama@yahoo.com

ABSTRACT

Present research intends to investigate the effectiveness of imagery rescripting and reprocessing therapy (IRRT) on insomnia, nightmare and suicidal ideation in depressed persons with suicide attempt history. The study population includes 45 persons who had referred to RashtRazi Hospital during 2 months. These persons answered the Beck Depression Inventory(BDI-II) as screening instrument.40 of them were depressed. These persons answered the Insomnia Severity Index(ISI),Disturbing Dreams and Nightmare Index(DDNSI) and Beck Scale for suicide Ideation(BSSI).30 of them who had the highest scores of insomnia, nightmare and suicide ideation, were selected. Then they were randomly assigned to experimental and control groups. For each of 15 persons of experimental group, IRRT was carried out weekly(7 sessions).Then both groups answered the ISI,DDNSI and BSSI inventories With use of MANCOVA by SPSS 18. The findings indicated that Imagery Rescripting and Reprocessing Therapy(IRRT) decreased measure of insomnia, measure of nightmare and measure of suicide ideation on suicide attempters. Also there were statistically significant differences between corresponding measures in experimental and control groups. These results suggest that IRRT can be useful to successfully reduce insomnia, nightmare and suicide ideation. Associated with depressed persons with suicide attempt history.

Keywords: depression, intrusive memories, insomnia, nightmare, suicide ideation, Imagery Rescripting and Reprocessing Therapy(IRRT)

INTRODUCTION

WHO expressed that suicide is one of 3 causes of death in 15-44 years in the world[12].%75 of suicide victims show symptoms that we can use those for preventing of suicide[6].

Suicide is often caused of disappointing or challenge in psychological disorders like depression, bipolar disorder, schizophrenia, alcoholism and drug abuse[9].Also pressures and misfortune of financial problems or challenge in interpersonal relations may have noticeable role[21]. It is estimated that %87 to %98 of suicide victims suffer from psychological disorders [22].Percentage of those are %30 of mood disorders,%18 of drug abuse,%14 of schizophrenia and %13 of personality disorders. The most disorder that is caused to completed suicide is major depression and alcoholism [23].

Insomnia and nightmare are significant predictors of depression Symptoms. Also nightmare predicts suicidal ideation Significantly[17]. Correlation coefficient between insomnia and depression is 0.54, nightmare and depression is 0.49, insomnia symptoms and suicidal ideation is 0.2 and nightmare and suicidal ideation is 0.3.It is

noticeable that the relation power between nightmare and depression($\beta=0.28$) is almost equal to the relation power between nightmare and suicidal ideation($\beta=0.29$)[17].

Depressed patients have intrusive memories. These memories are conservator of depression[8].Also interviews with depressed and formerly suicidal patients in remission found that all patients reported experiencing detailed mental imagery in addition to verbal thoughts when at their most despairing[23].

One of the effective treatments of nightmare is IRT, variant of IR[16].Furthermore IR is used for treating of intrusive memories in depression[1].So this research investigated effectiveness of IR on insomnia, nightmare and suicidal ideation in depressed patients with suicide attempt history.

MATERIALS AND METHODS

In this research, 45 persons who had attempted suicide and referred to Rasht Razi Hospital during 2 month, were examined. They answered Beck Depression Inventory(BDI).40 of them were depressed. These patients also completed Insomnia Severity Index(ISI),Disturbing Dreams and Nightmare Severity Index(DDNSI) AND Beck Scale for Suicide Ideation(BSSI).30 of them who had the highest scores of insomnia, nightmare and suicidal ideation were selected. Then they were randomly assigned to experimental and control group.

Measures

Beck Depression Inventory (BDI-II) questionnaire [28]

The BDI is a 21-item self-report inventory that is used to assess the presence of depressive symptoms. Participants are asked to indicate which statement best describes the way they have been feeling over the past 2 weeks. Each question is scored on a 0 to 3 scale. Total scores on the BDI can range from 0 to 63, with higher scores reflecting greater level of depressive symptoms. The BDI'S psychometric properties are test-retest reliability of 0.93 for a 1 week interval (Beck et al.,1996).Also validity of 0.7-0.9 was acquired in IRAN(Vahabzade,1352;Chegini,1381).

Beck Scale for Suicide Ideation(BSSI) questionnaire [27]

The BSSI is a 21-item self-report instrument that assesses the severity of suicidal ideation. Participants circle statements tht best describe their feelings over the past week and each item is scored on a 0 to 2 scale. The first 19 items are scored, whereas the last 2 items, which inquire about the history of suicide attempts, are not scored. Total scores on the BSSI can thus range 0 to 38 points, with higher scores indicating greater level of suicidality.The BSSI's psychometric properties are test-retest reliability of 0.54 and validity of 0.95($\alpha=0.95$)(Anisi et al.,2004).

Insomnia Severity Index(ISI) questionnaire [25]

The ISI is a 7-item self-report scale that assesses subjective symptoms of insomnia, including the degree of distress caused by this particular sleep complaint. Each item is scored on a 0 to 4 scale, with a maximum total scale of 28,a higher score represents greater severity of insomnia. More specifically, lower scores typically indicate no clinically significant insomnia(0-7) or sub threshold insomnia(8-14).Higher scores indicate clinical levels of insomnia that are either moderate(15-21) or severe(22-28).A cut-off score of 14 is generally consistent with clinical insomnia. The ISI's psychometric properties are internal consistency of 0.9, sensitivity of %86.1 and specificity of %87.7 for detecting of insomnia in samples.

Disturbing Dreams and Nightmare Severity Index(DDNSI) questionnaire [26]

The DDNSI IS A 15-item self-report scale that addresses disturbing dreams and nightmares. The DDNSI provides an index of global nightmare severity by measuring the number of nights of nightmares per week(0-7),the number of nightmares experienced per week(0-14),the frequency of awaking due to nightmares(0=never to 4=always),the severity of the nightmare problem(0=no problem to 6=very severe) and the intensity of the nightmares(0=not intense to6=extremely severe intensity),also influence of nightmares on insomnia, mood, mental health, bodily health, social activities, educational or occupational function and relations that is scored on a 0 to 4 scales. The total scores is 67.The internal consistency of DDNSI has been well supported(Ehsan taghizade, Majid safarnia & Morteza tarkhan,2012).

Procedure

Intervention

IRRT, the seven-week intervention assessed in the current study, is an adaptation of IRRT by Smucker and Dancu[1]Also based on Rush & Smucker's method[2] in treating intrusive memories. The IRRT intervention consists of seven 90 minutes sessions with weekly assigned homework. That is carried out for each person. Before a patient ia accepted for IRRT, a pretreatment evaluation is conducted primarily for the purpose of information gathering, diagnostic assessment, and treatment planning.

Specific questions are asked about the presence, frequency and intensity of intrusive memories and repetitive nightmares, which are recorded on the table 1.

Table1: pretreatment

Name of client :		date:		
Number	Nightmare or intrusive memory	Duration	Frequency Daily Weekly	Peak SUDs (1-10)

IRRT technique across the 7 sessions included:(1)*session 1*:Assess general mood, Record presence/frequency of nightmares/intrusive memories, Present treatment rationale, Introduce Subjective Unites of Distress(SUDs),Facilitate Imaginal exposure, Facilitate mastery imagery, Contract for safety and Assign homework. After completing of table 1 and describing about IRRT, it was implemented based on table 2.

Table 2: Subjective Units of Discomfort Scale (SUDs) Data

Patients	Baseline	Imaginal exposure	Imagery rescripting	Re-exposure to original images
----------	----------	-------------------	---------------------	--------------------------------

The stages were recorded on tape and was given to the client to listen daily up to next session.

At first session, the patients were referred to psychiatrist for treating depression.

If the patients was not well during carrying out the IRRT, relaxation exercise should be implemented.

(2)*session 2*:Assess general mood, Review reactions to daily audio tape listening, Review nightmare or intrusive memory record data, Review efficacy of self-calming strategies attempted, Facilitate Imaginal exposure and mastery imagery, Review contract for safety(if applicable), Discuss writing letter to prepetator, Assign homework. (3)*sessions 3,4,5,6,7* continue like session 2 until to be sure that client doesn't have any N or IM for investigating.

Analysis

For testing the research hypotheses, we used pretest-posttest plan and Multivariate Analysis of Covariance(MANCOVA) by Spss 18.

RESULTS

Based on table 3, comparison of the pretest and posttest means for ISI scores showed significantly lower scores at the posttest (M=7.15)than at the pretest(M=13.85) and based on table 5, significantly lower scores at the posttest in experimental group(M=7.694) than in control group(M=14.382).Also DDNSI scores indicated significantly lower scores at the posttest(M=5.85) than at the pretest(M=17.15) and lower scores at the posttest in experimental group(M=5.678) than at the pretest(M=17.467).At last we had significantly lower scores for BSSI at the posttest(M=3.46)than at the pretest(M=17.07) and lower scores at the posttest in experimental group(M=3.892) than in control group (M=17.339)

Table3:Primary mean

Dependent variable	Group	Mean (pretest)	Mean (posttest)	S.D
ISI	Experimental	13.85	7.15	3.87
	Control	13.15	14.92	4.46
DDNSI	Experimental	17.15	5.85	9.53
	Control	17.23	17.31	10.64
BSSI	Experimental	17.07	3.46	5.75
	Control	17.15	17.77	9.90

Table 4: Balanced mean

Dependent variable	Group	M	S.E	Low limit	High limit
ISI	Experimental	7.694	1.124	5.357	10.032
	Control	14.382	1.124	12.045	16.72
DDNSI	Experimental	5.678	5.117	0.804	12.16
	Control	17.476	3.117	14.994	22.958
BSSI	Experimental	3.892	2.245	0.777	8.65
	Control	17.339	2.245	12.67	22.008

The MANCOVA analysis revealed that IRRT has had meaningful effect in depressed persons with suicide attempt history in a combination variable by $F(3,19)=11.637, p<0.0001$ and Partial $\eta^2=0.648$ that shows very large effect size.

Table 5: Wilk's Lambda effect size test

Wilk's lambda value	F	Df ₁	Df ₂	Sig	Effect size
0.352	11.637	3	19	0.0001	0.648

So MANCOVA revealed that ISI, DDNSI and BSSI scores, all evidenced significance and meaningful decrease over the 7 sessions IRRT technique.

DISCUSSION

This study details effectiveness of IRRT technique on insomnia, nightmare and suicidal ideation in depressed persons with suicide attempt history. Finding indicated that the IRRT reduced scores of ISI, DDNSI and BSSI that is both statistically significant and clinically meaningful.

In our research, we aimed IMs¹ and N²s in patients by IRRT. It seems, it is for the first time that IRRT was used for treating suicidal ideation. This study resulted in consistently very large effect size for all outcome variables that were somehow similar to those that have been found in previous researches.

As Hackmann(2011) implied, IMs are conservator po depression. Depressed persons suppressed those. In repressing an IM, another of it is entered by force. Also these memories cause stress and express negative meanings about the person, the others and around world. IR aims those directly. Wheatly(2007) declared that, wasn't targeted in CBT. By using IR in that research, he observed significant decrease in distress and depression symptoms. In fact based on Brewin's theory(1999) in memories retrieval, IR prevents retrieval of those memories that consist of depressive taughts. Also when end of the memory was changed by IR and repeating daily listening to the tape, the new memory gets enough power to compete with the original memory. At last the second one with pleasant end will win.

Rush & Smucker[2] expressed that by changing end of memory by IR, the person has control on memory and enables him or her to build positives presumptions about mental state and memories. Otherwise he or she attributed disappointing and other negative feelings to him or her. Smucker and Dancu[1] implied that IR changes maladaptive schemas and converts those to adaptive schemas.

Vitacer[10] expressed that IR has powerful affect on negative emotion than verbal processing in CBT.

In effectiveness of IR on nightmare, our research is also in direct with previous studies.

Long[4] indicated that negative cognitions related to trauma, improve by IRT. Because IRT access to fear network during exposure to nightmare content and for this reason it would be successful. Hamonz(2010) found that IRET caused significant decrease in frequency of nightmare, PTSD symptoms and improve of sleep hours. At last about effectiveness of IR on suicidal ideation, our findings have the somehow similar results to searches like us. Zoler[5] indicated that CBT decreased rate of suicide ideation. We know that IR is a kind of CBT. Slee[11] used CBT for self harming and showed that it was caused significant decrease in selfinjury, suicidal ideation, depressive and anxiety symptoms. Hanabsabzade[20] showed that Mindfulness Based Cognitive Therapy(MBCT) reduced intensity of depression and suicidal ideation and frequency of intrusive memories significantly.

The current study is limited 1) by using of tape recorder in return CD player 2)because of cultural problems, some of persons didn't refer to psychiatrist on timely 3)we investigated the range 12-32 years and didn't consist years greater than it.

¹ -Intrusive memories

² -Nightmare

CONCLUSION

Based on the positive outcomes from the current study, future research of IRRT with long-term follow-up, in a broader range of outcome domains like gender, year, education, singleness and marriage and cultural patterns, is proposed.

REFERENCES

- [1] Smucker&Dancu(1999/2005).Cognitive-Behavioral treatment for adult survivors of childhood trauma. New York: Roman &Littlefield Publishers.
- [2] Rush,M.,Grunert,B.&Smucker,M.(2000).Imagery rescripting for recurrent, distressing images.
- [3] Thunker, J. (2012). Effectiveness of a manualized imagery rehearsaltherapy for patients suffering from nightmare disorders with and without a co morbidity of depression or PTSD.
- [4] Long,M.(2011).Imagery rescripting and exposure group treatment of posttraumatic nightmares in veterans with PTSD . *Anxiety Disorders* , 25 , 531-53 Sleep.
- [5] Zoler , M.(2010) . Cognitive behavioral therapy dropped suicidal ideation rate.
- [6] Dryden , Roxanne (2011) . Suicidal Thoughts
- [7] Nadorff , M . , Nazem , S . &Fiske , A . (2011) . I insomnia Symptoms ,
- [8] Hack mann , Ann (2011) . Original Research Article Imagery Rescripting in PTSD . *Cognitive and Behavioral Practice* , 18 , 4 , 424 – 432 .
- [9] Hawton,K.(2009).Suicide.
- [10] Vitacer, C. (2008). Imagery rescripting for cancer patients.
- [11] Slee, N. (2008). Cognitive behavioral intervention for self-harm. *British journal of psychiatry*, 192, 202-211.
- [12] Holmes.E.(2007).Imagery about suicide in depression, flash-forward?
- [13] Holmes.E.(2007).Imagery rescripting in cognitive behavior therapy.
- [14] Wheatley,J.(2007)."I'll believe it when I can see it".Imageryrescripting of intrusive sensory memories in depression.
- [15] Weertmann ,A.(2007).Effectiveness of treatment of childhood memories in cognitive therapy for personality disorders.
- [16] Hasler,B.(2007).Correlates and treatments of nightmares in adults.
- [17] Bernert,R.(2005).Suicidality and sleep disturbances.
- [18] Krakow.B.(2005).Nightmare complaints in treatment seeking patients in clinical medical setting.
- [19] Mansouri,R.(2005).Beck depression inventory.
- [20] Hanasabzade,M.(2009).Efficiency of MBCT on suicide ideation, negative intrusive memories in patients with major depression.
- [21] Magdoff(2008).precarious existence .
- [22] Bertolote, JM.(2004).psychiatric diagnosis and suicide.
- [23] Rai,A.(1999).evaluation and treatment of patients with suicidal ideation.
- [24] Hammons,M.(2010).Imagery rescripting and a exposure group treatment of post traumatic nightmare in veterans with PTSD.
- [25] Bastien,CH.&Morin, CM.(2001).Validation of the Insomnia Severity Index.
- [26] Krakow,B.&Schrader,R.(2002).Nightmare frequency in sexual assault survivors .
- [27] Beck,AT.&Steer, RA.(1991).Manual for BSSI.
- [28] Beck,AT.&Steer,RA.(1988).Psychometric properties of the Beck Depression Inventor