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The Effectiveness of Metaphor Therapy on Depression among Female Students

Marzieh Talebzadeh Shoushtari

Abstract—The present study aimed to determine the effectiveness of Metaphor therapy on depression among female students. The sample included 60 female students with depression symptoms selected by simple sampling and randomly divided into two equal groups (experimental and control groups). Beck Depression Inventory was used to measure the variables. This was an experimental study with a pre-test/post-test design with control group. Eight metaphor therapy sessions were held for the experimental group. A post-test was administered to both groups. Data were analyzed using multivariate analysis of covariance (MANCOVA). Results showed that the Metaphor therapy decreased depression in the experimental group compared to the control group.

Keywords—Metaphor therapy, depression, female, students.

I. INTRODUCTION

METAPHORS are used in everyday language and play an important role in the therapeutic domain that is liberating in orientation by supplying a new way to shape perception. Metaphors constitute a system of orientation which directs clinical practice. When a metaphorical meaning is highly salient, then that meaning will be accessed first and the metaphor will be rapidly understood. When its meaning is relatively low in salience, then it will be understood more slowly. Aside from relative speed of comprehension, the comprehension process is the same in both cases [1].

Metaphors may be easy to recognize, but they are hard "to", define [2]. Each definition of metaphor reflects an underlying theoretical view which may be at variance with other views. The Oxford Dictionary defines metaphor as: "The figure of speech in which a name or descriptive term is transferred to some object different from. According to [3] this definition implies the substitution view of metaphor, in which a metaphoric expression is used in place of some equivalent literal expression: "Richard is a lion," instead of "Richard is brave." While the meaning conveyed by the metaphor alight is communicated literally, metaphors make the language more poetic and picturesque. The relevance for psychotherapy is that language can be examined as an index of the natural imagistic content of a patient's thinking. This provides the clinician with a point of departure for Joining with the patient during treatment. The best-known view on the nature of metaphor states that it is essentially a comparison between or juxtaposition of objects which are literally disparate.

Comparison metaphors consist of perceived similarities between two or more objects [4].

The roots of the word metaphor suggest the meaning 'going beyond the part bearing,' something that transfers from one to the other thereby extending or introducing new meaning. The essential value of metaphor for therapy lies in the transfer of meaning, the capacity to bridge concepts and the capacity to extend the imagination into recognizing new possibilities [5].

The work of Lakoff and Johnson [6] provides an opportunity to review some of the general principles upon which the entire tradition of cognitive behavioral therapy and coaching has been built. The way in which we structure our mind and, and hence our perception, depends on the way we blend different linguistic categories and create metaphors about our self, others and the world. By exposing the organization of the metaphors within a person's mind, we can help him through rational discussion to distinguish between functional and dysfunctional metaphors [7].

There are many concepts beyond human understanding and humans use symbolic illustrations and languages to express them. Therefore, the language of religions is symbolic and mystics use a symbolic language to express their ideas. Symbolism is one of the prominent features of Maulana. Masnavi is the great book was written in the last decade of Maulana's life and after his other works and is his most speculative work [8].

In literature, simile, allegory and metaphor overlap each other in application, however they are different. Metaphor and allegory show the relationship between two things. Allegory shows the relationship between two similar things. Metaphor seems to implicitly compare one thing with other things; however allegory expresses similarities [9]. Metaphor has been studied in over two thousand years. In this system, metaphor served the virtual and literal language as a rhetorical tool to increase the beauty of language as well as its attraction. In the last few decades, cognitive linguistic studies defined a new nature for metaphor based on which metaphor is not only a literary array, but is considered as an active process in the human cognitive system. Studies [6] proved that the applications of metaphor are not limited to the literary studies and the applications of word, phrase or sentence. As a useful tool, metaphor plays an important role in identifying and understanding the phenomena and affairs and in fact creates a cultural model in the mind based on which the behavior chain is planned. Metaphor allows us to expand our thinking, deepen our understanding, investigate issues through new ways and select new scientific strategies. Humans essentially think metaphorical and live with metaphor. The nature of our

Marzieh Talebzadeh Shoushtari is with the Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran (corresponding author e-mail: marzieh_talebzadeh@ yahoo.com).

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understanding world is metaphorical. Todays, virtual language, especially metaphor forms our perception and social interaction. Therefore, it is not extravagant to say that the understanding of each phenomenon is finding a metaphor for that through replacing it with something more familiar. A new concept can be best understood using only the virtual language and metaphor [10]. Although the use of metaphor in psychological therapies has a long history, metaphor therapy does not mean to use metaphor as the main tool in the whole therapeutic process. This is a new approach in which the clients' problems are identified through the metaphor and therapeutic changes are metaphorically transferred to the clients. Metaphor transfers cognitive schemas and models enjoying cultural and social context. Therefore, the metaphor acquires specific cognitive characteristics in the form of each culture and language, and consequently transfers mental-emotional schemata or models specific to that culture and language [11].

The use of metaphors does seem to help the client to engage in a search for meaning, thereby instilling insight and generating outcome possibilities. This is possibly due to the fact that metaphors are indirect and less threatening, and can help bypass resistances and reach the unconscious, which are otherwise often difficult to attain. Therapeutic metaphors also facilitate the opportunity to reframe situations and help the client to view or react to issues differently without risk. Most importantly, metaphors can help present the counselor as less threatening, and this facilitates rapport between counselor and client. Needless to say, the goal of any therapeutic strategy is the client's participation and active involvement, and metaphors, because of their indirect and less-threatening qualities, facilitate this by easing rapport and communication between the client and the counselor [12].

Images and metaphors help to structure the therapist's belief system in two ways. First, images represent strategies used by therapists in order to simplify the most abstract theoretical concepts. Second, images provide a system according for organizing the information about a client and anticipate the patterns of client change [13]. Metaphors particularly the verbal metaphors are used to express those concepts and aspects of our lives the description of which is difficult [14]. Due to its special cognitive and practical features, metaphor is used not only as a tool, but also as a method of cognitive therapy to treat emotional disorders, especially depression. Using metaphor and allegory in cognitive behavioral therapy increases the efficiency and retention of key concepts of therapy resulting improved therapeutic outcomes [15]. Depression is known as the disease "cold" among psychiatric disorders. This metaphor refers to the widespread prevalence of depression [16]. It seems that depression has been the second disabling disorder in the world since 2010 [17]. Considering the fact that depression can cause many problems for depressed individuals, the preparation of therapeutic programs reducing depression symptoms is required more than ever. Since the research subject in new and there is no direct background, some researches related to the research subject are referred to as follows:

A study conducted by [18] showed that the use of metaphor in cognitive behavioral therapy as a clinical tool decreases physical and psychological symptoms and disability in patients with medically inexplicable symptoms. Khorshidi et al. [19] investigated the efficacy of metaphorical-allegorical training strategy in psychotherapy. For this purpose, 40 patients with dysthymia underwent metaphorical-allegorical treatment for 20 sessions. Results showed that the metaphorical-allegorical training has decreased depression symptoms, improved healthy schemas and decreased the recurrence of dysthymia in the experimental group. Stott et al. [9] codified a book on the use of metaphor in cognitive therapies explaining the clinical use of metaphors to treat depression, anxiety, obsession and stress after accident and chronic fatigue. Levit et al. [20] investigated the use of metaphor to treat depression and showed that the metaphor affects the depression treatment. Snyder [21] calls the poem a meta-metaphor widely used in both therapeutic processes and daily life. The efficacy of the poem as a meta-metaphor of metaphors used in narrative therapy is more fundamental and higher in level. Salimi Bajestani et al. [22] showed that allegory-based cognitive restructuring has increased the students' mental health and treatment using allegory is effective. Alizadeh Fard et al. [23] compared the efficacy of metaphors in the first and second language in metaphor therapy in Bilingual patients with Major Depressive Disorder (MDD). Results of this study showed that metaphor therapy significantly decreased depression scores in both groups.

Results of [24] showed that the efficacy of metaphor therapy to improve depression is more than that of cognitive therapy. Results of [25] indicate that the metaphors used by depressed individuals are more negative than those used by anxious people and metaphor is a stronger predictor of depression compared to the attitude. Vamoosi [26] showed that there is an inverse correlation between positive attitude towards life and depression. Naziri et al. [27] showed that the use of metaphor in cognitive behavioral therapy in depressed individuals decreases depression. Isa Zadegan [28] showed that metaphor therapy affects the change in the semantic processing of emotional information in depressed individuals. Comparing the metaphors of depressed patients and normal individuals, [29] showed that there is a negative correlation between the individual's mood and the metaphors' contents and the higher the depression, the more negative the metaphors will be. Considering the presented subjects and conducted researches, this study aims to answer the question "Does Metaphorical-Cognitive therapy based on Masnavi decrease the students' depression?"

Research Hypothesis: Metaphor therapy decreases female students' depression.

II. MATERIAL AND METHODS

This was an experimental study including a pre-test/post-test design with control group conducted on all female students with depression symptoms in Islamic Azad University of Ahvaz (Iran) referred to the university counseling center in the academic year 1392-93. Samples were

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selected using simple sampling. Beck Depression Inventory (Version II) was given to female students referred to the counseling center of Islamic Azad University of Ahvaz (Iran) in 1392 with depression symptoms. If the score was 17-19, individuals would be referred to the psychiatrist for clinical interview and recognition of nonclinical depression. Sample's criteria to be included in the study are as follows:

A. The minimum and maximum age of 18 and 40, respectively.
B. No history of psychological treatments before entering the treatment plan.
C. Having at least B.A. and at most M.A.
D. No history of receiving medication for at least six months before entering treatment plan.
E. Signing the consent form and agreeing to participate in the treatment plan.

According to the above-mentioned criteria, 60 subjects were selected as the sample and were randomly assigned to two experimental and control groups (30 subjects in the experimental group and 30 subjects in the control group).

A. Measuring Tools

B. Beck Depression Inventory (BDI)

BDI as a self-report instrument is known as the most important tool to measure depression. In 1996, Beck et al. offered the second version (BDI_II) in which some items are consistent with DSM-II and it is a 21-item self-report measure like the first edition [30]. Depending on the severity of the situation reported, the patient assigns a score from 0 to 3 to each of these items. Scores 0-9, 10-16, 17-29 and 30-63 show the minimal depression or normality, mild depression, moderate depression, and major depression, respectively [31]. Investigating the psychometric properties of the Persian-language version of the Beck Depression Inventory (second version) on 125 Iranian students in Tehran University of Medical Sciences and Allameh Tabatabai University, [30] reported the Cronbach's coefficient and test-retest coefficient equal to 0.87 and 0.74, respectively. Using Cronbach's alpha for the Beck Depression Inventory, a reliability coefficient of 0.88 was obtained in [32]. In addition, in [33], the internal consistency coefficient was calculated equal to 0.91 using Cronbach's alpha. In this study, the reliability of this instrument was calculated equal to 0.81 using Cronbach's alpha indicating the good internal consistency of the scale.

Thirty subjects in the experimental group underwent 8 group sessions of Metaphor therapy for 2 hours with one-week interval in a group method. Beck Depression Inventory (Version II) was answered by subjects once in the first session and then after the end of the eighth session. The control group received no intervention during this period.

The summary of the general topics of measures conducted in each therapeutic session are as follows:

First session: This session was held on the relationship between thought, behavior and emotion. After welcoming, subjects were informed of the number of sessions and homework. Then, the relationship between thought and action was expressed using the metaphors of engineer and gardener.

Metaphors of sultan, angle of view and perfection mirror deficiency were used to express the role of thought in displaying the behavior, type of emotion and depression. Allegory of bag was assigned as the homework to express the procedure of the therapeutic method.

Second session: Second session was held on the familiarity with negative automatic thoughts and their diagnosis method. At the beginning of the session, the previous session's homework was examined. Metaphor of imagination was used to express the relationship between positive and negative thoughts and emotions. Metaphor of brushwood examined the origin of ideas. Metaphors of subjective fancies army, mice and barn, and thorn were used to express thoughts automatism, identify thoughts deuces and the effects of negative thoughts, respectively. At the end of the second session, identifying negative automatic thoughts and feelings resulting from them using the metaphor of thorn was assigned as the homework of the next session.

Third and fourth sessions: Third and fourth sessions were held on the formation of thought chain and inefficient assumptions. The practices of previous sessions were reviewed. Metaphors of thorn in leg and sting were used to express the effects of negative automatic thoughts. Metaphors of bee, states' army and inn were used to express the formation of associations, diversity of emotional states and variability of thoughts. Metaphor of arrow described the thoughts focused on the goal. Allegories of "elephant" and "if" express the result of inefficient assumptions. Finally, the meaning linking the thoughts to each other was described using the metaphors of Leili, Caliph, believer and unbelievers. At last, "deaf" metaphor was assigned as the homework to record inefficient assumptions.

Fifth and sixth sessions: Fifth and sixth sessions were held on identifying dysfunctional assumptions and dealing with negative thoughts. Metaphors of sea and thorn were used to express changes in dysfunctional thoughts and dysfunctional hypotheses. Metaphors of life scythe and Mim were used to refer to the process of self-awareness in understanding the depressive thoughts and metaphors of fly, Loghman and grief scorpion were expressed to show the necessity of dealing with negative automatic thoughts. Identifying negative thoughts and dysfunctional assumptions in the metaphor of bag and comparing the metaphor of grief scorpion with the metaphor of Loghman was home works of the fifth and sixth sessions, respectively.

Seventh and eighth sessions: Seventh and eighth sessions were held on preparing the condition for positive thoughts and the way of dealing with negative and depressive thoughts. Metaphors of guest, brook, blossom, sugar, moderation garden and toe were used to express the necessity of mental balance, preparing the condition for positive thoughts and the ability to maintain positive attitude facing problems. Comparing the metaphors of moderation and guest was assigned as the homework of the seventh session. Metaphor of cloud suggested how to deal with negative thoughts. Metaphors of root, Khane Sar and the ways to resolve the grief were expressed from Maulana's viewpoint. Finally, the metaphor of

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ambitious chicken was used to express the high position of human and the therapeutic sessions were concluded.

TABLE I
MEAN AND STANDARD DEVIATION OF DEPRESSION SCORE IN EXPERIMENTAL AND CONTROL GROUPS IN PRE-TEST AND POST- TEST STAGES

Variable	Level	Statistical Indicator of Testing Item Group	Mean	Standard Deviation	Number
Depression	Pre-Test	Experimental	20.47	3.17	30
		Control	19.73	2.65	30
	Post-Test	Experimental	14.83	4.45	30
		Control	21.37	3.16	30

TABLE II
RESULTS OF LEVENE'S TEST ON THE PRESUMPTION OF EQUAL VARIANCES OF DEPRESSION SCORES IN BOTH GROUPS IN SOCIETY

Variable	Factor	Degrees of Freedom1	Degrees of Freedom2	Meaningfulness Level (P)
Depression	0.793	1	58	0.377

TABLE III
RESULTS OF ONE-WAY ANALYSIS OF COVARIANCE (ANOVA) IN THE CONTEXT OF MANCOVA ON THE MEAN POST-TEST DEPRESSION SCORES OF STUDENTS IN EXPERIMENTAL AND CONTROL GROUPS ADJUSTING THE PRE-TEST SCORES

variable	Source	Sum of Squares	Degrees of Freedom	Mean of Squares	FACTOR	Meaningfulness Level (P)	Eta Squared	Statistical Power
Depression	Covariate	365.33	1	365.33	58.55	0.0001	0.50	1.00
	Group	749.47	1	749.47	113.71	0.0001	0.67	1.00
	Error	355.92	56	6.59				

III. RESULTS

Descriptive findings of this study including the mean and standard deviation of depression scores in both groups are presented in Table I.

According to Table I, in the pre-test stage, the mean and standard deviation of depression variable in both groups are 20.47 and 3.17 in the experimental group 19.73 and 2.65 control group, respectively, 14.83 and 4.45, 21.37 and 3.16 in the experimental group and control group in the post-test stage, respectively.

A .Research Hypothesis-Related Findings

Levene's test is firstly used to observe the presumption of equal variances of the research variables and the results are presented in Table II.

According to Table II, the null hypothesis is true for the equality of variances of scores in both groups on the research's dependent variable (depression), i.e. the presumption of equal variances of scores was confirmed in both experimental and control groups.

According to Table III, adjusting the effect of pre-test scores, there is a significant difference in terms of depression among the female students in the experimental group and control group (p<0.0001 and F=113.71). Therefore, the research hypothesis is confirmed.

IV. DISCUSSED AND CONCLUSION

Findings of Table III showed that adjusting the effect of pre-test scores, there is a significant difference in terms of depression among the female students in experimental group and control group (p<0.0001). In other words, Metaphor therapy has improved depression in the experimental group. Therefore, the research hypothesis was confirmed.

The findings of this study are consistent with [9], [18], [19], [22]-[24], [26]-[29]. In the cognitive model of schemas, lifetime experiences of individuals create assumptions or schemas about self and world remaining in the long-term memory. Therefore, these assumptions are used to organize perception, control and analyze the behavior. Depressive schemas are universal and durable assumptions and beliefs about the world indicating how the person organizes his past and current experiences and classify the input information about the world. The theory of the associate belief network suggests that the depressed mood selectively organizes the information, increases the possibility of access to negative interpretation concepts or structures, increases the possibility of using them to interpret the experiences and leads to negative automatic thoughts and negative interpretation biases. Facing positive and negative emotional stimuli, concepts related to these implications come to the mind of people with depression and they try to apply cognitive operations such as judging that concept (good or bad, beautiful or ugly, harmful or useful) in accordance with their own mood states. According to the approach of cognitive interaction systems, meaning is not associated with feeling in this sense. People with depression more negatively analyze emotional implications. Metaphor is a combination of image and concept the use of which in psychological therapies can significantly affect the semantic patterns and schemas due to its semantic aspect – predicative, intuitive, emotional and sentimental. Metaphor therapy is based on discovering defective or inefficient semantic patterns using lexical patterns. Then, substituting new lexical patterns, the individual creates new semantic models using these metaphors and their reality testing. The more similar and consistent the individual's language and experiences, the better these concepts will be cognitively processed. Therefore, the use of metaphors based

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on the rich culture of Iran such as Maulana's Masnavi is superior to the use of non-native metaphors. Therapy pays attention to the cognitive restructuring of clients. Allegory and story can be used to transfer fundamental concepts and original components of therapy to the clients. Allegory substitutes logical arguments in the mind. Individuals need metaphor and allegory to understand what is not seeable and tangible. Allegory as a tool for indirect teaching can change the listener's mood, change the semantic framework of a problem, challenge inappropriate behaviors, activate the right hemisphere of the brain, bring powerful associations to the listener's mind and facilitate the relationship. Attractiveness, ease of use and lack of resistance in the clients are other benefits of using metaphorical concepts. Considering the capability of transferring culture and sensitivity of metaphors to social context, using metaphors extracted from literal and mystic contexts has a superior priority and efficiency. One of the limitations of this study was that the control group received no therapy to beat the placebo effect of therapeutic group due to limited facilities. Therefore, the effects observed may be the result of specific interest to the experimental group and not merely the effect of this special treatment. In addition, the effect of this therapeutic method could not be compared with the effect of other depression therapeutic methods due to the students' limited time, university administrative constraints and the possibility of loss of the sample. In future studies, usual counseling sessions will be held for the control group to beat the placebo effect of the therapeutic group and more confidently relate the research findings to the effect of metaphor therapy and not merely participation in the group. It is suggested to compare Metaphor therapy with other depression therapeutic methods including cognitive behavioral therapy and therapeutic schema in future studies. As a total result, Metaphor therapy can be considered as an appropriate training-therapeutic approach to reduce depression.

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