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Research Article

INVESTIGATING THE EFFECTIVENESS OF THE FORMULATED THERAPEUTIC PROGRAM OF RATIONAL EMOTIVE BEHAVIOR THERAPY ON THE RESILIENCE OF PEOPLE AFFLICTED WITH HIV-AIDS

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ABSTRACT
The issue of the present research is to formulate the rational emotive behavior therapy and investigation of its effect on resilience and mental health of people living with HIV_AIDS. The aim of this research is to provide and formulate a program in which the concepts of the rational emotive behavior therapy are used, until after its execution and education to the patients with HIV-AIDS, its effect on resilience of these patients is investigated. The research hypothesis is as follows: The program of rational emotive behavior therapy on resilience on people with HIV-AIDS is effective. The sample under study contained forty persons with HIV-AIDS which were between 20 and 50 years old and were selected randomly and were put in two groups of experimental group and control group. The experimental group was given the education of rational emotive behavior therapy during 10 sessions, but the control group was not given, and only in one session they were given non-related educations with the research issue (regarding safe sexual relation). All subjects were taken test in three stages, in this manner that before the execution of therapy session, pre-test was taken, after the execution, post-test and two months after the end of these sessions, follow-up was carried out. The tools which were used in this research were as follows: Conner Davidson's questionnaire for assessment of resilience. The statistical data were analyzed by use of statistical model of repeated measurement mixed and its results showed a meaningful relation ($p<0.01$) between the education of rational emotive behavior therapy and resilience.

Key Words: *Rational Emotive Behavior Therapy, Resilience, HIV-AIDS*

INTRODUCTION
The word resilience can be defined as coming out of hard situations or modifying it. In fact, resilience is the people's capacity for being healthy and showing resistance and tolerance in hard situations and full of dangers in which the individuals not only overcomes that hard situations but also during it and in spite of it he or she becomes stronger. Then resilience means to be successful, to live and improve oneself in hard situations in spite of dangerous factors. These conditions don't be created automatically, unless the individual comes into hard and unpleasant situation, until in order to overcome it or less vulnerability, he or she does one's best for discovering and benefiting from protecting factors (individual and environmental) in inside and outside of oneself which always exists potentially (Kazemi, 2004). Resilience is proposed while considering both stressor conditions and individual's inherent abilities for responsiveness, endurance and normal development against stressor conditions. The concept of resilience is a pleasant and promising solution, because the end of difficulty and bad conditions of one's childhood could be destructive and disappointing potentially. There are clean evidences about the existence of relation between unpleasant events and difficulty of life in one's childhood with the onset of mental disorders in the following years in life which among these disorders we can mention depression, drug abuse and suicide (Kazemi, 2004). Maddikhoshaba, (1994) are in the opinion that mental hardiness or the same resilience is one of the characteristics of the mental health, and for increasing of the individuals' mental health, their resilience must be increased. AIDS while is still an important concern in terms of health, it has become a social and economical urgency, and considering its social and economical damages resulting from its spread, it can be confessed that this disease is the most important present

challenge against development. Since most hygienic difficulties have very close relation with human behavior, theories and cognitive and behavioral patterns could be used for understanding of how to prevent from hygienic difficulties like HIV-AIDS (Ghafari *et al.,* 2008). From a psychological point of view people who are affected with this disease are facing with much limitation in social and cultural environment, and these people face with experiences which are often stressful. Social and psychological serious consequences resulting from AIDS in patients affected with this disease are mentioned as an important factor in the development of this infection (Douaihy, 2001). The researches show that from a psychological point of view, the diagnosis of HIV in affected people is often stressor and affects their quality of life and mental health (Okden, 1996; Curtis, 2000; Sohrabi, 2003). A research showed that the people who had experienced one or more unpleasant events had more rates of stress and behavioral difficulties and the danger of entering AIDS into them was more (Howland and Storm 2007). No person has immunity from mental vulnerability in passing of life. Serious stressor factors which are not usually predictable are threatening mental health and people don't show the same reaction in stressor conditions. The research has shown that one of the reasons of these various reactions is the concept of resilience.

Resilience is not only in the meaning of confronting difficulties in unpleasant events, but is a flexible response to daily life stresses. Resilience is a kind of trait which is different in people and could be increased or decreased gradually. Researches in their studies found that many people who are subjected to damages could overcome it safely and even attain more development (Khazaeli Parsa 2007). In fact resilience is the opposite point of vulnerability.

Although AIDS and its dominant method injection addiction can't be uprooted, but paying attention to mental, physical and social aspects of this group of people in society and determination of the daily stressor factors, resilience could be alleviation for the pain of these people, researchers and therapists in this domain (Barian, 2008).

Nowadays with the development of the technology in American, European advanced countries and even in the third world countries, although a great deal of effort has been carried out in scientific different grounds by thinkers and researchers of different sciences, still we evidence uncertainties in some of the scientific areas. One of the uncertain points which still has occupied both mind and thought of scientists, researchers and pathological experts to itself is AIDS disease. This disease has become an affliction in all societies and day by day the statistics of its afflicted patients are increasing (Dezhkam, 2001)

The manners of non-resilient thought make an individual related to one's wrong opinions in connection with the world and unsuitable strategies of the solution of the problem which leads to the wasting of mental energy and valuable resources of resilience (Reivich and Shatte 2002). The belief system could facilitate people's abilities in resilient responsiveness on avoidable ups and downs and blow in the course of life and or acts as a barrier against them (Seligman, 1991). The interventions whose aims are to influence the thought processes could be an important step in establishing skills and abilities related to resilience (Kordich-Hall and Pierson, 2003).

Mental disorders and physical disease could cause various kinds of disabilities, in this meaning that a disease could cause changes in a person until he or she can't fulfill all one's social expected duties and responsibilities (WHO, 1988).

As Estihard and Dolbir (2008) showed in a research that the program of increasing resilience for the university students in test group which consisted of cognitive-behavioral therapy, rational-emotive behavioral therapy and psychological education caused increasing of more effective confronting strategies, positive affections, self-confidence, self leadership, reduction of negative affections, stress and depression in present research, it is also predicted that the teaching of the program of intervention of rational-emotive behavioral therapy could increase the resilience of people afflicted with HIV-AIDS.

A research has been carried out by Rahimian-Boger, (2008) that its results explain the existence of the relation between resilience in unpleasant conditions and events such as earthquake and considers paying attention to it in mental health in disasters necessary.

Korhonen, (2007) believes that resilience parameters are the individuals' abilities for resistance and overcoming hard conditions and at the same time maintaining mental health, sense of humor and well-being.

Shek, (2004) showed in a research that individual's beliefs and mind- sets are in connection with unpleasant and stressor events of life and have relation with their mental health, life satisfaction, better compatibility and less behavioral difficulties. Hjemdal, *et al.,* (2007) also in their research have come to this result that the resilience is the prediction factor of mental health or the existence of the signs of less depression in individuals. Therefore it is possible to result that the individuals whose rate of resilience are more, have less rate of depression.

MATERIALS AND METHODS

The statistical universe in this research is all women and men between 20 up to 50 years old and afflicted with HIV-AIDS who lived in Tehran.

In order to investigate the effectiveness of the formulated therapeutic program of rational emotive behavior therapy on resilience of people afflicted with HIV-AIDS, as many as 40 individuals of people (11 women and 29 men) afflicted with HIV-AIDS who referred to the institute of "Green Freedom Face for the Reduction of the Damage" that were living in Tehran and were volunteers for cooperating with researchers and were inclined to participate in educational sessions in groups, were selected.

The sampling method in this research is the sample available with randomly replacement. In present research, the experimental design of pre-test and post-test with control group is used, because the subjects were selected randomly and replaced in test and control group in randomly method and then before and after the execution of independent variable, the subjects of two groups were measured by pre-test and post-test.

Volunteers were replaced in two 20-individual groups of experimental group and during ten 90-minute sessions, the program of rational- emotive behavior therapy which the researcher formulated, the concept of resilience, accompany with excerpts of positivistic psychology with the aim of reduction of stress and depression were taught by the group, and second group (control group) did not receive any education in this field and only one educational session of the discussion of safe sexual relation, which is taught as usual in drop-in center for form education was taught by them. Before and after the education (at the log inning of the first session and at the end of tenth session), the level of the resilience of participants by use of conner-davidson resilience scale (CD-RIS) was measured. Also pre-test and post-test were executed on the control group. Two months later, again post-test were executed on the participants of both experimental group and control group until the follow-up has been carried out and finally by use of statistical model, repeated measurement mixed of obtained statistical data was analyzed. Each session in the education of rational-emotive behavior therapy include a four-stage structure as follows: 1- feedback of the tasks of the previous session; 2- presenting the data; 3-the execution of an experiment in connection with the information of the session and 4- expressing the tasks of the future session. Also the leadings and aims of these ten sessions were as follows: 1st session-acquaintance with program and with researcher, 2nd session-education about the concepts of cognition, subjectivity and beliefs forming, 3rd session-education of cognitive reconstruction and its effect on establishing anxiety, 4th session-method of thinking (wisely and unwisely) and its effect on establishing anxiety, 5th session-masturbation and its relation with unwise thought and depression, 6th session-education of ABC of the rational-emotive behavior therapy, 7th session-acquaintance with fourteen views in rational-emotive behavior therapy session, 8th session-confronting with difficulty and stress and increasing of resilience by use of the basic of rational-emotive behavior therapy and increasing the tolerance of the frustration, 9th session-struggle for self-actualization and getting to happiness, 10th session-summation, review and conclusion. After the end of the ten education sessions, experimental and control group completed the research post-test and also two months after the end of research follow –up was carried out and post-test were executed again in both groups.

In present research, in order to collect the data for variable measuring of resilience, conner-davidson resilience scale (CD-RIS) was used.

Conner and Davidson's resilience scale: This questionnaire was provided by Conner and Davidson, (2003) with reviewing in research sources (1999-1979) in the field of resilience. This questionnaire has 25 spheres which in comparison with Likert scale is graded between zero (completely wrong) and five (always right). The more the subject's grade is nearer to 25, the more resilience he or she has, and the more his or her grade is near to zero, the less resilience he or she is benefited (Mohammadi, 2005).

Mohammadi (2005) has reported the validity and reliability of this scale as follows: for the determination of narration, at first, the correlation of any sphere is calculated with total number of items and then the method of factorial analysis was used. The calculation of correlation of each number with total number showed that except for sphere No.3, the coefficients were between 14% up to 64%. In the next stage, scale spheres were factorial analyzed by used of the basic components. Before the extraction of the factors, based on the correlation matrix of spheres, two parameters of KMO and Crovit Bartlett were calculated. The value of KMO was about 0.87 and chi-square value in Bartlett test was equal to 5556.28 which both parameters showed enough evidence for the execution of factorial analysis. After this stage, for determination of the number of factors, the standard of Scree diagram line gradient and special value from one were used. Based on the factorial line one gradient in scale was extractable. After the extraction of factor, factorial load matrix was executed by Varimax rotation method. Then factorial load of each question was calculated in relation to item and only sphere No.3 was removed from final analysis, because of the low factorial load. In order to determine the scale reliability, Alpha Kornbakh method was used, and resulting reliability coefficient was about 0.89. In the research of Samani, jokarkornbakh coefficient obtained and was about 0.87, and the results of factorial analysis test on this scale indicated the existence of a public factor on scale. The value of KMO coefficient for this analysis was about 0.89 and the value of Crovit Bartlett test was about 6.64. This factor determines 26.6% from total scale variance.

RESULTS

Considering table 1 and emphasizing on this fact that there is little difference between perspective, median and average and since the coefficient of bending and coefficient of kurtosis are less that digit 1, it can be proposed that the above distribution has the normal assumption and can use average as index representative of control tendency and also can use parametric statistical models.

Table No. 1: Statistical indices related to the investigation of "resilience" variable.

Group	Execution Stages	Indices of the Central Tendency			Dispersion Indices			Distribution Indices		
		Perspective	Median	Average	Scope of Changes	Variance	Standard Deviation	Standard Error	Coefficient of Bending	Coefficient of Kurtosis
Test	Pre-test	16	22	24.05	32	70.89	8.41	1.88	0.37	0.79
	Post-test	35	33	30.70	32	77.90	8.82	1.97	-0.26	-0.80
	Follow-up	22	24	25.65	25	46.13	6.79	1.51	0.47	-0.44
Control	Pre-test	17	25.50	26.35	38	110.23	10.49	2.34	0.57	-0.39
	Post-test	23	23	25.45	29	549	7.40	1.65	0.83	0.50
	Follow-up	26	26.50	26.05	24	39.10	6.25	1.39	0.20	-0.17

Considering the table No.2 and emphasizing on the rates of the average values obtained, it can be proposed that, in turn, the highest rate of average is observed in post-test, in a way that, the highest rate of resilience is related to the post-test (28.07), after that, follow-up (25.85) and then pre-test (25.20).

Therefore it can be proposed that the highest rate of the resilience is observed at first in post-test, after that in follow-up and then in pre-test. It is necessary to mention that considering the standard deviation obtained in all three levels, it is said that the highest rate of dispersion in turn at first is emerged in pre-test and after that in post-test and then in follow-up.

Table No. 2: Measuring levels of "Resilience".

	Gender	Average	Standard Deviation	Number
Pre-Test	Experiment	24.05	8.41	20
	Control	26.35	10.49	20
	Total	25.20	9.46	40
Post-Test	Experiment	30.70	8.82	20
	Control	25.45	7.40	20
	Total	28.07	8.47	40
Follow-Up	Experiment	25.65	6.79	20
	Control	26.05	6.25	20
	Total	25.85	6.44	40

Considering table No.3 and by use of four-time multi-variables (Filay tracking, lambediwilex, Hotling tracking and biggest Richle Ray), it was determined that there is meaningful relation in the level of (a=0.01) between dependent variable level of "resilience" with emphasizing on two groups of experiment and control at three levels of pre-test, post-test and follow-up.

Table No. 3: Multi variable test related to the dependent variable of "resilience".

Effect	Multi-Variable Tests	F Rate	Meaningfulness Level
Group	Filay Tracking	5.85	0.006
	LambediWilexhotling	5.85	0.006
	Hotling Tracking	5.85	0.006
	Biggest Rachle Ray	5.85	0.006

Considering table No.4 and emphasizing on F rate obtained in "resilience" and with emphasizing on groups of experiment and control which at the level of a=0.01 is meaningful, it can be proposed that there is a significant difference between "resilience" in pre-test, post-test and follow-up with emphasizing on groups of experiment and control. Finally, it is proposed that Eta square which has come at the end column of table 4 is indicating the severity of the effect of rational-emotive behavior therapy on moderate "resilience" which its severity is from zero up to one. Therefore with increasing of Eta square towards digit one, the severity of the effect increases and vice versa with reaching the digit of Eta square towards digit zero the severity of Eta is reduced.

Table 4: The tests of the effect of intra-subject comparative investigation of "resilience" in three stages (pre-test, post-test and follow-up.

Source of Changes	Total of Squares	Degree of Freedom	Average of Squares	F Rate	Meaningfulness Level	Eta Square
Group	308.45	2	154.22	5.91	0.004	0.13
Error	1983.03	76	26.09			

Considering table 5 and with emphasizing on F rate obtained on "resilience" over group (0.14), it can be proposed that there is not meaningful difference on the level of a=0.05 between "resilience" in two groups of experimental and control.

Table 5: Table of the tests of the effects of intra subject.

Source of Changes	Total of Squares	Degree of Freedom	Average of squares	F Rate	Meaningfulness Level	Eta Square
Group	21.67	1	21.67	0.14	0.704	0.01
Error	5601.11	38	147.39			

DISCUSSION AND CONCLUSION

Shek, (2004) showed in a research that individual's beliefs and mind- sets are in connection with unpleasant and stressor events of life and have relation with their mental health, life satisfaction, better compatibility and less behavioral difficulties.

As Estihard and Dolbir (2008) showed in a research that the program of increasing resilience for the university students in test group which consisted of cognitive-behavioral therapy, rational-emotive behavioral therapy and psychological education caused increasing of more effective confronting strategies, positive affections, self-confidence, self leadership, reduction of negative affections, stress and depression in present research, it is also predicted that the teaching of the program of intervention of rational-emotive behavioral therapy could increase the resilience of people afflicted with HIV-AIDS.

In Rahimian-Boger, (2008) research it explains the existence of the relation between resilience in unpleasant conditions and events such as earthquake and considers paying attention to it in mental health in disasters necessary.

The results of present research show that the rational emotive behavioral therapy on resilience has been effective. The obtained result has been congruent with the literature found in this research. As it said before, the education of some of the skills could be effective on resilience. The styles of the non-resilience thought could cause individuals becomes dependent to one's wrong opinions in relation with the world and unsuitable strategies of the solution which causes the wasting of the mental energies and valuable sources of resilience (Reivichand Shatte, 2002). Belief system could facilitate individuals' ability

in resilient responsiveness in ups and downs and in unavoidable events in the course of life and or act as a barrier against them (Seligman, 1991).

Considering the findings and with emphasizing on F rate obtained in "resilience" (5.91) with emphasizing on group (experiment and control) which is meaningful at the level of a=0.01, it can be proposed that with emphasizing on descriptive statistics, there is significant difference between resilience in pre-test, post-test and follow-up with emphasizing on groups of experiment and control.

There were some limitations in this research. The present research has only investigated one psychological characteristic of resilience in patients afflicted with HIV-AIDS and not its other psychological characteristics. Also this research has investigated the resilience only in patients afflicted with HIV-AIDS and not in patients with other diseases. It is limited to the Tehran city and may not be generalized to the other parts of the country and has been carried out only on 40 individuals of sample group who are in the range of 20 up to 50 years old only and the deficit of the numbers of statistical sample may have effect on the results of the research. The basic motive of the half of the participants was eating good lunch at the center because of the financial poverty and etc.

For elimination of the above mentioned limitations in this research, some suggestions could be presented as follows.

More researches must be carried out for investigation of the other psychological characteristics of the patients afflicted with HIV-AIDS. Also the present researches must be carried out on the subjects other than the patients afflicted with HIV-AIDS. Some researchers must work on the more numbers of sample group and experiment group in other ages. More researches can be carried out in the area of psychological difficulties of patients afflicted with HIV-AIDS. Organizations, hospitals and therapeutic centers must have more flexibility in the area of the researches of mental patients afflicted with HIV-AIDS, and also some measures must be carried out for accessing of researchers to these patients.

Considering that high percentage of patients afflicted with HIV-AIDS in this country establishes injection addicts, it must be noted that many of them are forced to commit illegal actions and different crimes for supplying their expenditures for addiction. Among most of their illegal actions is sex working among women and men who causes increasing of social damages and also sexual transmitted disease and HIV-AIDS.

So some measures must be carried out in reduction of these kinds of social damages. There must be emphasizing on dangerous sexual relation alongside addiction, and safe sexual relation and proper usage of male and female condom must be taught and propagated in the society. It is necessary for the executive organizations of the country to take action for distributing sterile shots and syringes and reduction damage packages, and also measures such as the development of the ngos and increasing of the shots, syringes and condom automatic delivering machine could be also useful in the country-wide scale.

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