

Effectiveness of Cognitive Behavioral and Spiritual Trainings on Improving Mental Health of HIV Positive Drug Addicts

Fariba Ravaei¹, Simin Hosseinian², Shahnaz Tabatabaei^{3,*}

¹Imam Reza International University, Mashhad, IR Iran

²Faculty of Education and Psychology, Al Zahra University, Tehran, IR Iran

³Faculty of Health, Safety and Environment, Shahid Beheshti University of Medical Sciences, Tehran, IR Iran

*Corresponding author: Shahnaz Tabatabaei, Faculty of Health, Safety and Environment, Shahid Beheshti University of Medical Sciences, Tehran, IR Iran. Tel.: +98-9123881513, Fax: +98-2177309594, E-mail: tabshahnaz@yahoo.com.

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Background: HIV positive drug addicts are in need of extensive social support to be able to fight against the destructive effects of this disease including the resulting mental and physical problems.

Objectives: The present research has been designed to study the effectiveness of cognitive-behavioral trainings with an emphasis on spirituality to improve the mental health of this group of individuals in the society.

Patients and Methods: This research was semi-experimental with pre-test and post-test design and control group. The statistical population included all 300 HIV positive drug addicted males who had referred to the health center, located west of Tehran, during 2009. 30 out of 300 individuals were randomly selected as a sample group. They were divided into two groups: 15 in the experimental and 15 in the control. The experimental group participated in a cognitive-behavioral and spiritual training program (8 sessions each 90 minutes, per week). In order to study the effect of the treatment; a questionnaire of life quality measurement from the Medical Outcomes Study HIV Health Survey (MOS-HIV) was used. This questionnaire was validated (with one-month time interval) through a retesting method (Cronbach's Alpha 0.70). The sample group completed the questionnaire at two stages, pre-education and post-education programs. The data was analyzed by the t-test to compare the mean differences of mental and physical health in experimental and control groups.

Results: The result of the present research showed that cognitive-behavioral trainings with an emphasis on spirituality were effective for improving quality of life, regarding general aspects of mental and physical health, sub-scales of general health, physical performance, the performance of role, physical pain, social performance, energy, stress and, cognitive performance of HIV positive drug addicts ($P < 0.01$).

Conclusions: It can be concluded that cognitive-behavioral and spiritual training was effective for the improvement of mental health of HIV positive drug addicts.

Keywords: Spirituality; Mental Health; Drug Users; HIV

1. Background

In recent years, we have faced irregular growth in the consumption of drugs and its individual and social destructive consequences at the global level. Affliction with human immunodeficiency virus (HIV) is one of those consequences. It is such that its prevalence among injecting addicts has broad dimensions. A person who lives with HIV faces many biological and socio-psychological changes. In a study carried out at the University of California (1), when individuals learned about their affliction with HIV, they experienced denial, fear, sorrow, anger, depression, distress, guilt and feeling of worthlessness, fatigue and reduced energy, loss of interest in doing jobs and had problems with sleeping and concentration. All these factors endanger the mental and physical health of these groups of individuals. In general, mental health includes individual's mood, emotions and behaviors.

Psycho-social interventions are necessary for improving the mental and physical health of individuals who are living with HIV (2). Thus, health policies at the global level, in order to increase the level of health in this group of individuals in the society include both mental and physical dimensions. The cognitive-behavioral treatment is one of the interventions considered for this group. This treatment is a short-term and limited approach and has been used in precise clinical studies. Cognitive treatment is a method in which the patient is assessed for mental pressures and their perception of themselves, the world, their future and beliefs which apparently make them vulnerable against emotional disorders is altered (3). In cognitive-treatment, the patient initially learns how to identify their illogical views. Then the therapist begins to investigate the past experiences of the patients and chal-

Implication for health policy/practice/research/medical education:

The cognitive-behavioral and spiritual trainings were effective the improvement of mental health of HIV positive male drug addict.

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lenges their illogical values and false argumentations (4).

Generally, the cognitive therapist deals with changing problematic out dated behaviors, which have been acquired by the patients for years. This treatment is employed to improve emotional, behavioral and cognitive problems including improvement of mood, distress, depression, personality and mental problems resulting from misuse of drugs and alcohol (5). Moreover, in accordance with the studies, cognitive-behavioral treatment is effective for reducing distress, depression and improves mental health and safety system of HIV positive individuals (6-11). Basically, HIV positive patients are exposed to danger, it is necessary to make changes in their perception of life and they should be directed to hold a positive and a spiritual view (12). Hence, regarding the role of spirituality and worship the health of HIV positive individuals, it was observed that those with a stronger faith in God, had greater internal relaxation and were healthy for a longer duration of time (13). Also a part of this group which received spiritual teachings had more hope and positive view which in turn was effective in reducing distress, depression and increased their life satisfaction (14-18).

2. Objectives

Considering the mentioned discussion, the purpose of the present research was to study the effectiveness of cognitive-behavioral trainings with an emphasis on the influence spirituality has on improving the mental health of HIV drug addicts.

3. Patients and Methods

This research was semi-experimental with a pre-test

and post-test and a control group. The statistical population included all 300 HIV male drug addicts, which had referred to the Health Center in the West of Tehran during 2009. These individuals were 20 - 45 years old, who had finished educational guidance school, high school or above. The sampling method was simple randomization. Thirty out of 300 HIV positive drug addicts, referred to the Health Center, were randomly selected as the sample group. Out of this group, 15 were placed randomly in the experimental group and 15 in the control group. The experimental group participated in 8 sessions of cognitive-behavioral and spiritual training programs (each session was once a week for 90 minutes).

First, the questionnaire of personal data was given to the sample group. It consisted of questions, related to the patient's education, job, marital status and history of the disease. Then, a questionnaire, which assessed the dependence of life quality on the health of HIV positive individuals (MOS - HIV) was completed by the sample group; in a pre-test and post-test manner. The questionnaire included two general sections on mental and physical health and sub-scales, assessing the perception of public health, performance of role, physical pain, social performance (related to the section on physical health), mental health, stress, cognitive performance and energy (related to the section on mental health). The questionnaire was translated to Persian during the research and five psychometric experts confirmed its reliability. Then it was validated through re-testing method, with a one-month time interval, for 30 HIV positive drug addicts (Cronbach's Alpha 0.70). The study was approved by ethics committee of Al Zahra University. T-test was used as a statistical method using the SPSS software (Table 1).

Table 1. Training Program

Session	Program
First session	An introduction to various types of drugs and its consumption damages, introduction to HIV and methods to prevent its transmission
Second session	Reinforcing spiritual beliefs and faith in God, through reading stories, Qur'anic and spiritual traditions and verses, defining the features of spiritual individuals
Third session	Introduction to the effects of spiritual beliefs and praying on an individual's mental and physical health, teaching how to relax, teaching some spiritual prayers and internal monologues
Fourth session	Introduction to the concept of endurance, understanding the features of individuals and enduring environments, methods to reinforce an individual's endurance
Fifth session	Introduction to cognitive errors and methods to fight against negative beliefs
Sixth session	Self-awareness, methods to increase self-confidence
Seventh session	Methods for stress management and teaching problem solving methods
Eighth session	Methods for anger management

4. Results

The average age range was 30 - 39 years, 50% were single, 46.6% had secondary school education and had gained high school diploma and the rest (46. 6%) were

unemployed. As demonstrated in Table 2, there is a significant difference between means of general section for mental health of experimental group in the pre-test and the post-test stages.

Table 2. Mean Scores of the General Section for Mental Health of Experimental and Control Groups for Pre-test and Post-test Stages

Scale	Control Group, Mean		Experimental Group, Mean	
	Post-test	Pre-test	Post-test	Pre-test
General section for mental health	26.34	26.48	62.18	36.38

In order to determine the mean differences, with an assumption that there are similarities of variances between the two sample groups, the independent t-test was used to compare the mean differences between scores of the gen-

eral section for mental health of experimental and control groups, for pre-test and post-test stages. T value in Table 3 reveal that there are significant differences between means of the general section for mental health and its sub-scales.

Table 3. Mean Differences of General Section for Mental Health and its Sub-scales for Experimental and Control Groups in Pre-test and Post-test Stages ^a

Scale	MD ^b	SD ^b	SE ^b	t
Mental health				6.81
Experimental	31.20	12.11	3.12	
Control	1.60	11.69	3.01	
Stress				5.10
Experimental	32.66	19.16	4.94	
Control	3	11.77	3.03	
Cognitive performance				2.78
Experimental	16	18.04	4.65	
Control	0.66	11.31	2.92	
Energy				5.28
Experimental	26.33	13.42	3.46	
Control	2.66	10.99	2.83	
General Section for mental health				6.34
Experimental	26.55	12.66	3.27	
Control	1.98	8.04	2.07	

^a n = 15, P < 0.01, α = 0.05.

^b Abbreviations: MD, Mean Difference; SD, Standard Deviation; SE, Standard Error.

T value were calculated by the freedom degree of 28 and they were greater than the quantity of the t in the standard table. Therefore, the assumption of zero is rejected and with a 95% level of confidence, there are significant differences between the means of the above factors in experimental and control groups. This means that the cognitive-behavioral and spiritual training program was effective for the improvement of the general section of mental health and its sub-scales in the experimental group.

5. Discussion

This research was conducted in order to study the effect of cognitive-behavioral teaching with an emphasis on the influence spirituality has on improving the mental health of HIV drug addicts. On this basis, the cognitive-behavioral training program was implemented for two months (8 sessions) for the experimental group (HIV

drug addicted males) at the venue of the Health Center, in the west of Tehran, during 2009. According to the results of the findings (Table 3), this treatment was able to be effective for improving the general section of mental health and its sub-scales (mental health, stress, cognitive performance, energy) in the test group (P < 0.01). Basically, cognitive-behavioral treatments are used with an aim to change the individual's view of themselves, the surrounding environment, the future, their beliefs and perceptions, which make them vulnerable against existing disorders (3). On the other hand, individuals who are facing incurable diseases such as HIV positive, experience changes in their perception of life and hopes for the future (12). In this treatment program, effort was made to help the participants identify their illogical beliefs and by gaining awareness and skills, they can replace these with logical ones and achieve a more positive view about life (4).

Valuable results, gained from this research, are compatible with the results of researches conducted on the ef-

fects of cognitive-behavioral treatment on mental health of individuals with HIV positive (6-9). On the other hand, spiritual trainings are effective in changing the individual's views towards their disease and quality of life. These results are compatible with researches which have investigated the influences spirituality and its teaching have on increasing the level of hope and reducing distress and depression among individuals afflicted with HIV positive (14-16, 18). In addition, participation in group meetings helped the members reduce their feeling of isolation and loneliness and they could experience new emotions by supporting each other and enjoy getting attention from their pairs and having this support system. Since, the results of this research are specific and significant, it is suggested that future researches, should examine more samples and female groups.

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Authors' Contribution

All Authors collaborated equally.

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