



Original Article

The Efficacy of Group-Based Logotherapy on Hope of Life in HIV Patients in North of Iran



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ABSTRACT

Background: Patients infected with human immunodeficiency virus (HIV) are unable to find meaning in their lives, and drown in crisis. Logotherapy attempts to place a barrier against psychosis and depression by focusing on tangible and meaningful goals. The present study was conducted to investigate the efficacy of group logotherapy on the hope of life in patients with AIDS.

Methods: In the present interventional study, 50 people with eligibility criteria of minimum junior high school education and receiving no treatment for depression were selected as the sample out of 180 HIV-infected patients attending a counseling center for behavioral diseases and positive club in the city of Rasht. Then, 24 participants with lower hope-of-life scores were randomly assigned to intervention and control groups. The intervention group received 10 sessions of group logotherapy, but the control group received no education. The hope of life defined as positive motivational state was determined using Schneider's Hope Scale with Cronbach's alpha of 0.81. The scale has two components of agency defined as goal-directed energy, and pathways defined as planning to meet goals. The results from intervention and control groups were then compared using analysis of covariance.

Results: In the intervention group, mean score for hope of life increased from 33.58 (SD = 7.92) at beginning of the study to 47.67 (SD = 7.47) after intervention, but reduced in the control group from 36.67 (SD = 3.98) at beginning to 34.33(SD = 4.71) after intervention. The analysis of covariance showed that adjusted mean scores of hope of life, and its components including agency and pathway in the intervention group were significantly higher compared to the control group.

Conclusion: According to the results, logotherapy in HIV patients had a positive effect on increasing hope of life.

Keywords: HIV, Hope of life, Logotherapy, Pathway

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Introduction

Acquired immune deficiency syndrome (AIDS) is rapidly spreading in developing countries, and significantly affects the health and socioeconomic development of these countries. The social consequences of human immunodeficiency virus (HIV) infection have become so widespread and they involve not only the patients with HIV/AIDS, but also their caregivers and those in contact with them (1). This infectious disease is known to be the fourth global leading cause of death among communicable, maternal and nutritional diseases (2). National estimates in Iran revealed that 26,556 patients had been identified with HIV/AIDS by 22 June 2013, 89.6% of whom were male and 10.4% female (3). Although psychiatric disorders may affect any individual, these complications are significantly more prevalent in patients with HIV, including grief, despair, severe psychological tensions, depression and anxiety, which can emerge following any adverse condition. Given the feeling of despair in these patients, some rehabilitate programs should be designed to improve their mental health (1). Feeling of affliction caused by AIDS extends beyond the experience of physical pain, and includes financial, familial, psychological and spiritual dimensions (4). These patients should cope with the pressure of numerous psychosocial factors, including mental preoccupation caused by disease, fear of death and concerns about the future and loss of job and treatment expenses. therefore, the patients need to be assisted in reinforcing their hope of life (5). Various counseling and psychotherapy methods, such as logotherapy, have been commonly used in recent years to relieve mental disorders in these patients. Logotherapy calls for human endeavor and activity instead of pessimism and isolation, arguing that it is the absence of meaning in life that exhausts humans rather than their unpleasant fate and pains. Hopelessness is a shocking state manifested by perceiving affairs as impossible and feeling disabled and disinterested in life. Patients become excessively passive due to hopelessness, and cannot assess their situations and make decisions. Given the close relationship between the body and mind, cognitive and psychological factors are currently considered to directly or indirectly contribute to the emergence or development of many physical illnesses. Moreover, medications used to control diseases may cause significant mood disorder. Psychosocial support is therefore considered to be effective in patient response to treatments (6). Furthermore, patients with HIV face social stigmas and discriminations and feel embarrassed and depressed, as soon as their infection is to be detected. They, therefore, need psychological support and reinforcement of social affiliations. Psychologically supporting these patients empowers them and improves their quality of life. By increasing the emotional and psychological capabilities of these patients, their hopefulness can be increased, which directly improves their medical and therapeutic compliance. In logotherapy sessions, the desired objectives and methods are determined according to basic group counseling skills, and include counseling rapport, asking questions to facilitate internal exploration, interpretation, reframing confrontation and creating conflict, supportive encouragement, guided imagery, giving assignments, role taking, and completing

incomplete sentences (7).

Logotherapy interventions have not been conducted yet among HIV patients Guilan province, Iran on hopefulness, as a prerequisite for quality of life-improving interventions. Furthermore, strategies for enhancing hopefulness and spiritual health in patients with HIV constitute a research priority of the Iranian welfare organization and Guilan welfare organization. The present study was therefore conducted to investigate the effect of logotherapy on hopefulness in patients with HIV presenting to the counseling center for behavioral diseases and the positive Club, and thereby help reduce AIDS-associated sufferings involving financial, familial, psychological and spiritual dimensions.

Methods

Study population

In the present randomized clinical trial, the study population comprised all of 180 HIV-infected patients referring to the counseling center for behavioral diseases and the Positive Club in Rasht, Iran between March 21st and June 21st, 2014. The eligible candidates consisted of HIV-positive patients who had enrolled in the positive club of the Welfare Organization at least three months before and getting a lower than average score of Snyder's Adult Hope Scale (AHS). Those patients receiving treatment for depression were excluded. After completing AHS questionnaire, 24 eligible patients, were randomly assigned into the two groups based on their national identification number (ID). The even ID numbers were assigned to the intervention and odd ID numbers were assigned to the control group. The experimental group then participated in 10 two-hour sessions of group logotherapy classes, and the control group received no training. AHS was recompleted in both groups at the end of the program.

Intervention program

The summary of logotherapy sessions are as follows: session one, administering the pretest and explaining the purposefulness of life. Session two, emphasizing the width of life rather than its length. Session three, emphasizing spirituality in life; session four, trivializing social confrontation with these patients. Session five, justifying other people's behavior based on their ignorance. Session six, emphasizing empathy, togetherness and communication with one another. Session seven, avoiding isolation from people. Session eight, having positive beliefs about life and not blaming oneself. Session nine, being prospective rather than retrospective, and session ten, continuing the previous session and administering the posttest.

Measurement tools

The participants' hopefulness was evaluated using the 12-item questionnaire of hopefulness (Snyder, 1991), which contains two subscales for assessing agency thinking and pathways thinking. This scale was designed for people over the age of 15, and takes 2-5 minutes to be completed. The items are scored on an eight-point Likert scale from completely disagree (1) to completely agree (8). The filler items of 3, 5, 7 and 11 are not scored, items 2, 9, 10, and 12 measure agency thinking and items 1, 4, 6, and 8 assess pathway thinking. The total score therefore varies from 8, i.e. the lowest hopefulness, to 64, i.e. the highest hopefulness. Many studies supported the reliability and

validity of the AHS for measuring hopefulness. The overall consistency of this test was 0.74-0.84, with a test-retest reliability coefficient of 0.8, which increased with course durations longer than 8-10 weeks. The internal consistency of the agency subscale was 0.71-0.76, and that of pathway was 0.63-0.8. Moreover, there are many data associated to the concurrent validity of the AHS; for example, the correlation coefficient of AHS with questionnaires of optimism, expectation and goal achievement and self-esteem was 0.5-0.6. The correlation coefficient of AHS was 0.51 for Beck Hopelessness Scale and 0.42 for Beck Depression Inventory, confirming the validity of AHS (7). Ghobari confirmed the reliability of AHS in Iran through Cronbach's alpha of 0.82 for the whole scale, 0.88 for the pathway subscale and 0.79 for the agency subscale. A study by Golzari also reported a Cronbach's alpha of 0.89.

Data analysis

The data were described using mean and standard deviation for the quantitative variables and absolute and relative frequency for the qualitative variables. The Shapiro-Wilk test was used to evaluate the normal distribution of the data. If data were not normally distributed, the two groups were compared using the paired t-test or the Wilcoxon test. Analysis of covariance (ANCOVA) was used to compare the post-intervention scores of hopefulness between the two groups adjusting for the baseline values. The ANCOVA assumptions including homogeneity of slopes, compound symmetry (Sphericity), and *homoscedasticity* were assessed using Mauchly test. The analysis were performed in SPSS version 19.

Results

The mean age of the study participants was 33.57 ± 2.57 years. Half of the participants were female, 29.1% ($n = 7$) were single, 70.9% ($n = 17$) were married, 54.1% ($n = 13$) had junior high school education and 45.9% ($n = 11$) had high school diploma. The majority of the married participants had one child. Table 1 presents the underlying characteristics of the participants in the two groups, suggesting no statistically significant differences between the two groups in terms of age, marital status, level of education and number of children. Table 2 shows the scores of hopefulness for the whole scale and for agency and pathway subscales before and after intervention, suggesting

no significant differences between the two groups in terms of the scores of agency, pathway and the overall score of AHS at baseline. The mean overall score of hopefulness significantly increased from 33.58 ± 7.92 before the intervention to 47.67 ± 7.47 after the intervention; however, no significant differences were observed in the mean score of hopefulness in the control group before and after the study. There was significant increases in the mean scores of the agency and pathway subscales upon completing the study in the intervention group, although no significant increases were observed in these components in the control group. Table 3 presents the results of ANCOVA and the adjusted mean scores of hopefulness and its components at the end of study. The adjusted mean score of hopefulness components in the intervention group was significantly higher than the control group. The adjusted mean scores of hopefulness showed higher hopefulness (40.383) in the intervention group compared to in the controls (30.588).

Discussion

The present study was conducted to investigate the effect of teaching logotherapy on hopefulness in patients with HIV. The findings showed that logotherapy significantly increased the score of hopefulness in the intervention group. These findings are consistent with the results obtained by Mehrinejad et al. who found logotherapy to increase hopefulness in addicts who had withdrawn, and affect their withdrawal and increased their social compatibility (8). The present results were also found to be consistent with previous studies who showed the efficacy of group logotherapy in reducing depression and aggression in drug-dependent people (9), reducing death anxiety and enhancing social adjustment of elderly (10), increases hope in social, academic, affective, familial, occupational and leisure time domains in patients with esophageal and gastric cancers (11), reducing perceived stress and increases hopefulness in MS patients (12) promoting women's health by reducing their anxiety and depression (13), improving depression and goals of depressed migrant Korean women (14), improving goals of life and mental health in alcoholic couples (15), and promoting spiritual health and quality of life in women with AIDS (16). Reducing hopelessness in women with cancer in the city of Tehran, Iran (17), and increasing hopefulness in cancer patients (18).

Table 1. Background Characteristics of the Participants in the Two Groups

Variable	Intervention group		Control group	
	Number	Percent	Frequency	Percentage
Gender (female)	6	50	6	50
Marital status				
Single	3	25	4	33.3
Married	9	75	8	66.6
Level of education				
Junior high school	7	58.3	6	50
High school diploma	5	41.7	6	50
Age group				
20-30	8	66.6	7	58.3
30-40	4	33.4	5	41.7
Number of children				
None	3	25	4	33.3
One	5	41.6	6	50
Two or more	4	33.3	2	16.7

Table 2. The Mean Scores of Hopefulness and Its Components in the Experimental and Control Groups before and after the Intervention

Variable	Intervention		Control	
	Mean	Standard deviation	Mean	Standard deviation
Agency				
Pretest	13.8	4.8	17.3	2.5
Posttest	22.3	4.8	16.1	3.1
Pathway				
Pretest	19.8	3.8	19.6	1.8
Posttest	26.4	3.3	18.5	2.5
Hopefulness				
Pretest	33.6	7.9	36.7	3.9
Posttest	47.7	7.5	34.3	4.7

This result can be explained by the fact that every disease is affected by emotional and social factors, and therefore has a psychosomatic dimension. The emotional factors affect all physiological processes in the body through neurological and hormonal pathways (19).

It is believed that people have the opportunity to attain the highest and most profound meaning of life in irreversible situations like an incurable disease. Attitude toward suffering is much more important than the suffering itself. Turning the suffering into the best manifestation of the value of human existence, as it no longer would need to be tolerated once it becomes meaningful. Hope cannot survive without a goal. Goals are therefore the center of gravity for the hope theory (20).

Logotherapy is a counseling technique with an existential psychotherapy approach, which deals with human and his world. This method helps individuals confront their concerns and underlying concepts of life such as life and death, hope and despair, communication with others or remaining isolated, freedom of choice, awareness about and feeling responsible for oneself and others, self-transcendence and searching for meanings in periods of life close to death. This method also helps individuals feel more responsible for their life by understanding the concepts of logotherapy, and achieve happiness and motivation along with accountability toward themselves and others by experiencing fundamental transformations in their beliefs, thereby helping them change their behavior toward others and the environment. Adopting this approach and comprehending the meaning and objective in life help promote different dimensions of quality of life (21).

According to this theory, the power of will and hope is latent in human being, and cannot to be learnt or come out of nothing; rather, it can develop and be pushed toward specific goals. Hope has a paradoxical nature, as according to the hope theory, even one with suicidal intentions plans for an objective, albeit very negative (7). One who has lost everything in this world can still think about prosperity and love, even for a short moment. When experiencing a total void and cannot express his inner needs as a positive action,

all human can do is to please himself by seeking the meaning of love while honestly and truly bears his sufferings (22). This is an approach that is addressed in logotherapy. Having meaning or goal in life is positively associated with psychological factors. Logotherapy is an existential approach that provides an excellent philosophical and theoretical context for teamwork. Logotherapy can prepare a conceptual structure to help clients with their challenge of finding meaning in life. This method emphasizes four key interests rooted in human existence, namely death, liberty, loneliness and meaninglessness (16). Research suggests that having meaning in life is associated with positive emotions and excitement, and the more meaningful and purposeful the individuals perceive their lives, the better psychological health they will enjoy and the more satisfied they will be with their lives. Individuals accept their fate and seek meaning for their suffering in logotherapy. In other words, this therapy focuses on people who face existential disappointment and are unable of finding a reason for living. According to the results obtained, logotherapy can be considered a proven and effective strategy for improving psychological status, i.e. increasing hopefulness, and a psychotherapy technique that helps promote psychological well-being in patients with HIV.

Conclusion

The present study findings showed that using group logotherapy counseling sessions can enhance hopefulness in patients with HIV. These results can provide guidelines for relevant institutions such as the welfare organization and help them hold group logotherapy counseling sessions for patients with HIV as an essential part of the support provided by this organization.

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Table 3. Comparison of Adjusted Mean Score of Subscales and Overall Hopefulness between the Two Groups

	Intervention group		Control group		F-Statistic	P
	Mean	99% CI	Mean	99% CI		
Pathways	23.13	22.2-24.1	18.4	17.5-19.4	49.4	0.001
Agency	17.8	16.4-19.2	12.2	10.9-13.6	34.1	0.001
Overall score of hopefulness	40.4	38.4-42.4	30.6	28.6-32.6	78.9	0.001

Ethical consideration

The study protocol has been approved in Institutional Review Board of Welfare Organization in Guilan province. Code of ethics: 9530-125239.

Conflicts of interests

Authors declared no conflict of interest.

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