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The Effect of Positive thinking Education on Quality of Life in the Patients with Diabetic Type 2



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Abstract

Background & Aims: Diabetes is one of the health problems in the world with many complications like diabetic foot that can be resulted in gangrene and amputation and it creates economic and psychological problems which can reduce the quality of life. On the other hand, the effects of patient education as one of the nurses' duties are emphasized. Therefore, the present study is carried out to compare the effects of Positive thinking on quality of life in the patients with diabetic type 2 in 2017.

Materials & Methods: This semi experienced cross-sectional study was carried out to study the quality of life in 60 patients with diabetic type 2. In this study, simple sampling was used. The instrument for data gathering was SF-36. Positive thinking was trained in 8 sessions of 90 minutes to the Intervention group. The data were analyzed through SPSS software (version 16).

Results: The results of this study showed that positive-thinking education could increase quality of life in the patients with diabetic type 2 and the subjects participating in the post-test had significantly higher quality of life (P < 0.01).

Conclusion: In sum, the results of this study confirm the usefulness and effectiveness of positive thinking in increasing quality of life in the patients with diabetic type 2.

Keywords: Positive thinking; Quality of life; Diabetic type 2

Introduction

Diabetes is one of the most common diseases in Iran and the world. It is a chronic, progressive and costly disease and is consideredas a public health problem and causes many complications [1]. Diabetes mellitus is one of the major causes of death and disability around the world. According to the latest available statistics, about 171 million people in the world suffer from this disease and it is estimated that this figure will reach 300 million in 2025 [2]. The prevalence of this disease in Iran is estimated at 6% of the population, which is about 4 million people [3]. The disease is caused by the body's ability to produce or use insulin and it is a syndrome that seeks to imbalance between the need for insulin and its supply, which is characterized by increased blood sugar and carbohydrate, protein and fat metabolism disorders [4]. In a study of quality of life, 58.1% of 60% of diabetic patients were undesirable but in most healthy subjects it was reported desirable [3]. The chronicity of diabetes and its potential complications often result in high financial costs and a reduction in quality of life and important lifestyle changes for the patient and family [5].

Diabetic patients face multiple physical and psychological problems such as depression, anxiety, disability, sedentary and

obesity, which ultimately lead to a decrease in quality of life. As a result, quality of life is very important for diabetes and its treatment [6]. Quality of Life is defined as a multidimensional concept that includes the fields of health and physical functioning, mental health, social functioning, treatment satisfaction, worry about the future and a sense of well-being [7]. Sanchez, et al. [8] showed that quality of life in diabetic patients has a low level [8]. The issue of quality of life is important because it can lead to disappointment, lack of motivation for any effort and the reduction of social, economic, cultural, health, etc, and in deeper dimensions, affect the social and economic development of a country. In other words, by improving the quality of life for the promotion of health, this is what is at the heart of development and is the goal of all states [9]. Improving quality of life not only benefits the diabetic patient, but also reduces the health and medical costs associated with them [10].

The most important reason for the lack of effective control of diabetes is education and inadequate patient skills [11]. And educational programs are effective in individual and group work on the life of diabetic patients [12]. One of these tutorials is positive thinking. A person with an optimistic orientation toward the future evaluates stressful situations with a positive view and has

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a good calculation of his abilities to deal with problems. Optimistic individuals in the face of stressful events show self-reliance and they are more likely to consider positive about the future and use more problem-oriented coping strategies to deal with problems. As a result, optimism seems to play an important role in adapting people to stressful situations, and optimism training as a plan for past hard-case events and adjusting them by setting positive goals for the future, increasing self-efficacy, Meaning and life expectancy and well-being of individuals have been effective [13]. Positive thinking involves how a person evaluates and anticipates the outcomes and outcomes of life events. One of the important influences of positive thinking is the impact on the mental health of individuals and overlooks human life in terms of physical, mental and social [14].

Positive thinking for people to improve their positive relationship with oneself and others in order to feel good about themselves and to establish valuable and positive relationships with others, and to be very useful and useful in controlling feelings and emotions in general. Thinking and avoiding negative thoughts are good strategies for coping with problems more efficiently, good creativity improves the information processing of individuals and increases the well-being of humans [15]. Given the increasing incidence of diabetes and mental illness (anxiety, depression and hopelessness) that accompany the patient when diagnosed with the patient and affect the person's life, providing training that will help the patient to continue living with the highest quality and accepting treatment requires it. Therefore, this study aimed to investigate the effect of positive thinking on quality of life in type 2 diabetic patients.

Method

This interventional study was carried out on two groups of pre-test and post-test in February 2017 on patients referred to the

diabetes center of Mashhad. Entry requirements include: aged over 18, type 2 diabetes for at least one year, ability to answer questions, informed consent for participation in the study and exit conditions including: receiving psychiatric treatment, absenteeism more than Two sessions in educational interventions tended to leave the study. The number of samples was determined according to previous studies, 95% confidence interval, 90% test capacity, determined 60 people. Considering the probability of dropping the units, 32 subjects in each group (64 in total) were considered as Access was selected and randomly assigned to two groups of 32 people. Finally, with the loss of 4 units (3 people due to lack of participation in the workshop and 1 person due to lack of response to the questionnaire at the follow up stage), 60 (30 in the Intervention group and 30 in the control group) in the study Participated. The instrument used in this study was a personal data form and SF-36 quality of life questionnaire.

Demographic characteristics questionnaire contained 16 questions about personal characteristics. The quality of life questionnaire (SF-36) includes 36 questions. The quality of life in 8 dimensions, physical function (10 questions), role limitation due to physical problems (4 questions), role limitation due to mental problems (3 Question), physical pain (2 Question), social function (2 questions), emotional health (5 questions), energy and fatigue (4 questions), and general health (6 questions). Based on the Likert scale (three options for functional dimension and five options for other dimensions), the score Was made. The lowest score of this questionnaire was 0 and its highest score was 124. The higher the score obtained from the questionnaire, the better the quality of life. The reliability of the Persian version of the quality of life questionnaire by Kashan University of Medical Sciences was calculated by internal consistency method that Cronbach's alpha coefficient for different quality Life dimensions has been achieved ranged from 0.77 to 0.90 [16].

Table 1: Educational content of optimistic and positive thinking education.

Session	Educational content				
1	Orientation with the automatic thoughts and negative beliefs about himself, God, others, life and the future.				
2	Fight negative thoughts by tracking source of ideas, challenging negative thoughts and stopping them				
3	The relationship between the bad events, their beliefs and their mood changes				
4	Documentary modification and pessimistic explanation styles for optimistic explanation styles (familiarity with distortion techniques)				
5	Attention analysis (e.g., techniques not to say far away)				
	Learning to debate with yourself (Finding evidence for your interpretation, finding other interpretations and examining the usefulness of beliefs)				
	The process of progress includes summarizing thoughts and actions and planning				
6	Understanding your admission techniques, self-confidence, focusing on abilities and limiting disability				
7	Strengthening religious beliefs, faith and trust in God and believing in divine destinies in the face of unfortunate events				
8	Summation and conclusions				

In this research, the reliability of the questionnaire was measured by internal consistency method, which was Cronbach's alpha coefficient of 0.82. Interventions (positive thinking) were performed in group and in 8 sessions for the intervention group and no intervention was performed for the control group. The overall content of the training sessions derived from the practical and

positive thinking practice of Martin Seligman (1998) is presented in Table 1. The research units were followed up for one month after the intervention. The data were analyzed using SPSS version 11.5. In the tests, the confidence level was 95% and the significance level was 0.05. Results In terms of gender, 30% of the units in the intervention group and 40% in the control group were male and

most of the subjects were 90% in the intervention group and 83.43% in the control group. There were no significant differences between the two groups in terms of all background variables (Table 2). The mean score of overall quality of life in the intervention

group increased from 89.2 ± 11 in the pre-intervention stage to 8.2 in the post-intervention phase and 16.6 in the follow-up phase one month later, which was significant (P=0/000).

Table 2: Comparison of background variables in intervention and control group.

Vari	able	Intervention group	Control group	P value
Age (year)	34/0±4/2	33/3±4/1	0/68
Marital status	Single	3	5	0.452
Marital status	Married	27	25	0/52
C.	Man	9	12	0./42
Sex	Female	21	18	0/42

In the control group, the mean score of overall quality of life was 90.7 ± 9.8 in the pre-intervention stage, 0.8 in the post-intervention phase and 4.3 in the follow-up phase There was a significant difference between the two groups (P= 0/000). There was no significant difference between the mean scores of overall quality of life in the pre-intervention stage in the control and intervention groups (P = 0.450). This difference is in the next step Interior and followed a month later was significant (P < 0.05). Table 3 shows the mean score of quality of life in different aspects of quality of life; as it is clear in the intervention group, the mean scores of disorders in role play due to mental disorders, physical pain, social functioning, emotional health and general health are respectively. The rate of 1/4, 0/4, 0/6, 1/1, 2/9 increased in the post-intervention phase compared to the pre-intervention stage, which was statistically significant (P < 0.05). These changes were not significant in other aspects of quality of life. In the intervention group, in the follow-up phase one month later, changes in all dimensions of quality of life

except physical function were significant (P < 0.05).

In the control group, only the mean of disruption in role play due to physical problems was 0.1% in the post-intervention phase compared to the pre-intervention stage (P < 0.05). In the follow up phase one month later, the control group also decreased the mean score of role disorder dimensions due to physical problems, role impairment due to mental disorders, emotional health and general health, which was significant (P < 0.05). Also, the findings of this study showed that the mean scores of different dimensions of quality of life in the pre-intervention stage were not significantly different between the two groups, but in the post-intervention phase, these changes in the dimensions of role playing disorder due to physical problems, role impairment. Due to mental problems, emotional health and general health, there was a significant difference (P < 0.05). In the follow up phase one month later, this difference was significant in all dimensions of quality of life except physical function and physical pain (Table 3).

Table 3: Mean scores of quality of life dimensions in pre-test, post-test and follow-up stages in intervention and control groups.

	Groups	Follow up	post-Test	pre-Test	Comparison of different stages in terms of statistical test results
Variables		Mean± Standard deviation	Mean± Standard deviation	Mean± Standard deviation	
Dlanai and formation	Intervention	17/8±2/50	17/7±2/8	17/2±3/3	-
Physical function	Control	18/1±3/0	18/0±3/1	18/1±3/0	
Disrupting the role	Intervention	14/5±1/6	13/4±2/9	12/9±2/8	b, c
due to physical problems	Control	11/9±1/8	12/5±1/5	12/7±1/5	
Disorder in role due	Intervention	8/8±2/1	10/2±1/5	11/0±1/1	b, c
to mental problems	Control	9/1±1/69	9/1±1/68	8/6±1/63	
Dharai and main	Intervention	6/5±1/5	6/9±1/3	7/1±1/1	-
Physical pain	Control	7/1±1/2	7/1±1/2	7/1±1/2	
Social Function	Intervention	6/2±1/2	6/8±0/9	7/0±0/8	- с
Social Function	Control	6/3±1/2	6/2±1/1	6/1±1/1	
Emotional health	Intervention	14/5±2/2	15/6±2/4	16/5±2/0	b, c
Emotional health	Control	14/1±1/5	14/0±1/6	13/4±1/3	
Energy and Fatigue	Intervention	8/2±2/7	9/0±3/1	11/6±2/2	- c
Ellergy and raugue	Control	8/9±1/9	8/7±1/8	8/5±1/7	
General health	Intervention	14/9±3/4	17/8±3/9	20/3±2/3	b, c
General nearth	Control	14/3±2/5	14/3±2/5	13/6±2/4	
Tatal avality of life	Intervention	89/2±11/0	97/4±11/1	105/8±8/6	b, c
Total quality of life	Control	90/7±9/8	89/9±9/6	87/3±9/6	

Conclusion

The findings of this study showed that the mean score of quality of life in the intervention group increased significantly in the postintervention phase. This indicates the effect of positive thinking on quality of life in type II diabetic patients. Regarding the fact that the study did not find the effect of reflection on the quality of life of type II diabetic patients, the findings of this study were compared with those conducted on patients and other people in the community. Positive people are self-assured and confident in dealing with stressful events, and they tend to consider positive probabilities in the future and use more problem-oriented coping strategies to deal with problems [17]. The results of the Jang study on Korean citizens determined positive thinking as an important variable in increasing life satisfaction [18]. The results of the research also indicate that optimism is a reliable prediction of physical and mental health including positive mood, positive response to medical interventions, effective coping and health promotion behaviors [19]. In this study, the findings showed that positive thinking led to an increase in quality of life in the intervention group compared with the control group.

Studies show that positive beliefs have a positive relationship with different dimensions of health and play an important role in preventing physical and mental disorders and increasing mental health [20]. Koepka results showed that optimism reduced the negative effects of anxiety and there was a significant relationship between quality of life scores and optimism [21]. The positive goal is to get people to think honestly about themselves and to overcome the worries and stresses that are present in everyday life. In confirmation of this finding, Nes showed that optimism with coping strategies has a positive correlation that results in management and reduction of stressors [22]. Also, the results of Hassan Shahi's research showed that positive people think the best way to deal with problems and try to accept reality [23]. In the study, Brydon concluded that optimism has a protective role against the inflammatory effects of psychological stress [24]. Several studies have always sought to discover the factors that could help human beings in a damaged condition, preventing their damage and its degradation under the heavy burden of illness and its problems.

Using the positivist approach in Khadayari Fard's psychotherapy showed that intervention based on strengthening personal perceptions can lead to an increase in individual descriptions of the individual [25]. The present study also showed that positive thinking and positive thoughts lead to a better quality of life in diabetic patients. Hence, in the interventions considered for these patients, in addition to medical interventions, psychological interventions, especially positive psychological topics, include training strategies for fighting negative thoughts and Positive mental imagery seems to be necessary to increase the strength of adaptation to the disease and confrontation with its stressors. From the research limitations, there were differences in individuality and how to adapt to the disease, mental and psychological conditions of the units under study. Considering that positive thinking has positive effects on mental health, it is suggested that studies in other groups should be

carried out especially for patients with chronic diseases and with larger sample size and for other variables such as self-esteem.

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