The Effectiveness of Cognitive Behavioral Group Training on Stress Management Style Resiliency and Glycemic Hemoglobin Levels in Diabetic Patients

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ABSTRACT
The purpose of this study was to determine the effectiveness of Cognitive Behavioral Group Training on Stress Management Style Resiliency and Hemoglobin Levels in diabetic patients of Shiraz city has been done. Research method was experimental and the design of pretest-posttest-with-control group kind been. Statistical population consisted of nearly nine hundred and fifty diabetic patients from the Diabetic Center of the City of Shiraz one year before and filling the case. The research community consisted of 60 people was randomly selected from the member patients of Shiraz diabetic association who were available from the sample. They were randomly bringing in two groups of experimental and control. At first pre-tests were performed by both groups and then the experiment group were trained stress management, cognitive - behavioral therapy with relaxation in 10 sessions of two hours and a half every week and during this term control group was under training other unrelated stress management programs such as drug educations. After the end of the term, both groups completed the questionnaires again. Also glycemic control index (HbA1c) test was repeated after 3 months from the first test. The research tools include resiliency questionnaires and glycemic control index (HbA1c) testing. Also, data obtained from research using descriptive statistics (mean, standard deviation, frequency, maximum and minimum) and the covariance method Manova inferential statistics and independent T-test and analysis software Spss-18 case. The findings indicate that cognitive style group training, stress management - treated diabetic patients by increasing resiliency and decrease of the glycemic hemoglobin in the blood of diabetic patients.

INTRODUCTION
Overlapping concepts of health and disease that are in range. One side of the spectrum of health, physical condition, mental and social well established that varies over time. On the other hand, is a disease that is accompanied by symptoms of illness and disability.Throughout history, especially the twentieth century, in contrast to earlier times, the pattern of disease has changed. Today, people are dying of old age or other causes. Infectious diseases, the leading cause of death in industrialized societies is not. Chronic diseases are a major problem in the world today come [19]. Diabetes is one of the most common diseases in the world and is a chronic, progressive, and is costly and creates many complications. For a person with diabetes should be accepted and accepting that your lifestyle will change based on the condition.Because these patients often have trouble ever Mybashd.az short-term and long-term complications of the disease is not common knowledge, creating a mood and psychological disorders in this population would not be far-fetched [15]. This disease is the most common endocrine disorder after heart disease, cancer, skeletal and muscular diseases, the fourth leading cause of death in the age groups [4]. Psychosocial factors in diabetes control are very important. Especially in cases where the disease is difficult to establish equilibrium and stability, Thus, coping with symptoms, and the dominance of one over the And cope with their feelings on how to manage diabetes will be much more efficient than it seems. Among the diseases, diabetes and life-long learner phenomenon that encompasses all aspects of a
person's life. So it's the psychological effects of diabetes and how to cope with the disease particularly enjoys. Among these factors, stress can have negative effects on human health is severe. However, stress can make a person vulnerable to physical illness, and in the long run lead to death [2]. It can be said that the relationship between stress and disease is an interactive two-way relationship, this means that, in turn, physical illness, especially if they are chronic, stress, and major life events are [18]. Adaptive coping with the stresses associated with chronic illnesses like diabetes is not easy, and many of these patients are facing a lot of problems in this area, for the management of all aspects of personal, familial, societal influences. Thus, understanding the patient's psychological problems and trying to resolve or reduce these problems, especially in countries such as Iran that the high prevalence of diabetes is high medical costs for individuals and society is essential on [1]. Since the amount of hemoglobin glucose is the most important index of glycemic control in diabetic patients, in the present study, the physiological factors studied. So in relation to the effect of cognitive behavioral stress management away technology, health locus of control, general health and blood glucose in diabetic patients, little research has been done, On the basis of this study is to identify and study the issue_and fill the information void in this area of the field for the necessary measures to provide education and support for diabetic patients. Relationship between stressful experiences and diabetes has been questioned. Evidence suggests that stressful experiences may be involved in the onset and exacerbation of diabetes mellitus [9]. Stress can play an important role in general health, so that attempt to overcome stress can cause physiological and psychological responses they concluded that, the emergence of health problems [6]. Resiliency is the ability to load overcoming stress events, including serious injury, death, disaster, Economic damage, political turmoil and cultural change and maintain mental health and humor, despite dealing with these unpleasant events, notes [11]. Literature on coping skills and resiliency factors indicate that it is one of the factors resilience. In several studies it has been found that increase resiliency and effective coping skills [8, 20].

Miller [13] argues for the development of resiliency therapists assesses clients rather than weaknesses and obstacles, to the personal strength training stress coping skills and how to achieve these capabilities. Mental health is essential to improving the quality of human life, is critical. In a study of Porsharifi (2007) Cognitive-behavioral and motivational interviewing training on blood glucose is significantly reduced.

Method:
This study is a pilot study with a pretest - posttest control group was that the sample of 30 cases and 30 patients in the control group who were selected by random sampling and replacement. It should be noted that both groups were common during the course of drug treatment.

The population, sample:
The study sample consists of nearly nine hundred and fifty-diabetic subjects Diabetes Association Diabetes Association visit the city for a year prior to their filing. The study population consisted of 60 participants who will be available samples from patients Shiraz Diabetes Association; randomly selected and again randomly assigned to experimental and control groups were 30 people. Which range from 18 to 65 years old. Sampling In order to select combinations of convenience and random sampling of patients with diabetes is a member of the city is used.

Research instruments and their validity:
In order to do research and collect data, Connor and Davidson Resilience Questionnaire to the experimental and control groups were given glucose and hemoglobin testing was performed on both groups. And then, with the implementation of the independent variable in the experimental group participated in 10 sessions of 2 to 2/5 hour re-test and Blood glucose testing, the two groups were compared. The subjects' demographic data including age, gender, marital status and educational level of the subjects were asked in a questionnaire. The theoretical data collection used in the study of literature review including books, journals, articles, theses previous and worldwide web (Internet) were used. Also, data obtained from the questionnaire using descriptive statistics (mean, standard deviation, frequency, maximum and minimum) and inferential statistics and independent t-test was performed using ANCOVA, and MANOVA.
1- demographic questionnaire developed by the researchers
2- Connor and Davidson Resilience Scale
3- study of patients with hemoglobin levels of glucose

Data Analysis:
Data were analyzed using descriptive statistics such as mean, standard deviation and statistical inferential procedures using independent t-test, multivariate data analysis, Pearson correlation coefficients and analysis of covariance was performed.
Results:

Table 1: Characteristics of the sample according to the gender variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experiment</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Woman</td>
<td>26</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 2: Cronbach's alpha coefficient of the questionnaire in this study Resiliency

<table>
<thead>
<tr>
<th>Resiliency</th>
<th>Cronbach's alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0/78</td>
</tr>
</tbody>
</table>

Table 3: Descriptive study of resilience In the pre-test and post-test scores of the experimental and control groups (N=30)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Average</th>
<th>Standard deviation</th>
<th>At least</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resiliency- Control Group</td>
<td>2372</td>
<td>2208</td>
<td>79/07</td>
<td>73/6</td>
<td>17/45</td>
<td>16/09</td>
</tr>
<tr>
<td>Resiliency- Experiment Group</td>
<td>2476</td>
<td>2902</td>
<td>82/53</td>
<td>96/73</td>
<td>15/05</td>
<td>12/08</td>
</tr>
</tbody>
</table>

Table 4: Comparison of experimental and control groups in the resilience of stress management training (pre-test).

<table>
<thead>
<tr>
<th>Operating</th>
<th>Group</th>
<th>Average</th>
<th>Degrees of freedom</th>
<th>Value of t</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resiliency</td>
<td>Control</td>
<td>79/07</td>
<td>82/53</td>
<td>58</td>
<td>-0/824</td>
</tr>
</tbody>
</table>

Table 5: Comparison between the experimental and control groups as resilience after stress management training (post-test).

<table>
<thead>
<tr>
<th>Operating</th>
<th>Group</th>
<th>Average</th>
<th>Degrees of freedom</th>
<th>Value of t</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resiliency</td>
<td>Control</td>
<td>73/6</td>
<td>96/73</td>
<td>58</td>
<td>-6/29</td>
</tr>
</tbody>
</table>

Table 6: compares the two groups in blood glucose pre-test stress management training (pre-test)

<table>
<thead>
<tr>
<th>Operating</th>
<th>Group</th>
<th>Average</th>
<th>Degrees of freedom</th>
<th>Value of t</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood glucose</td>
<td>Control</td>
<td>7/52</td>
<td>7/07</td>
<td>58</td>
<td>1/23</td>
</tr>
</tbody>
</table>

Table 7: Comparison of experimental and control groups in blood glucose after stress management training (post-test)

<table>
<thead>
<tr>
<th>Operating</th>
<th>Group</th>
<th>Average</th>
<th>Degrees of freedom</th>
<th>Value of t</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood glucose</td>
<td>Control</td>
<td>7/6</td>
<td>6/76</td>
<td>58</td>
<td>2/12</td>
</tr>
</tbody>
</table>

Discussion and conclusions:

The aim of the present study the efficacy of cognitive-behavior stress management training the resiliency and blood glucose in diabetic patients aged 18 to 65 years with 60 of the International Association of Diabetes Patients in Shiraz Be selected and randomly divided into experimental and control groups were 30. Initially, both groups completed the pretest blood glucose testing was performed for both groups. The experimental group received 10 sessions of 2.5 hours weekly stress management training program Cognitive-behavioral relaxation groups. The booklets were delivered weekly to study and do homework. The control group just below received 10 sessions of 2.5 hours weekly stress management training combined with it. In each session, a new relaxation technique, such as progressive muscle relaxation, mental imagery and meditation is introduced. Stress management skills build on each other and include cognitive restructuring, coping strategies and social networking are strong. By the end of the program,
participants will be equipped and integrated various techniques that can be used to reduce stress and improve quality of life. The results of this study, the difference between control and experimental groups resiliency scores after stress management training are significant And shows that the experimental group benefited from higher average. It seems that stress management training in cognitive-behavioral approach is to increase the resiliency of diabetic patients. This research study conducted by Silz [20], HassanzadehPishang et al [8], Jafari, Eskandari, Sohrabi, and Delaware [10] is consistent. It should be noted that the record is insufficient research in this area. Coping responses in explaining these findings, we can say that a combination of cognitive and behavioral efforts to manage stress And enjoys the nature of the process. Thus Resiliency is not a stationary state. But depending on the time and situation is subject to change. The coping responses used by the method of assessing the situation of children. For instance when those stressors can be controlled and often they change their style of PBL. In contrast, when stressors are uncontrollable assessment, emotion-focused strategies employed. Thus, it appears that growth is influenced by the way individuals and groups, resiliency, coping skills, how to evaluate specific situations and coping approach [10]. Resiliency is born of the knowledge which the person has access to more resources to respond to stressors Stressful and causes a person to be realistic and consider the words of the generosity of resiliency stem from a sense of control that Drawing a person may access a list of useful strategies to cope and actually shield against the intense physiological arousal. The researchers believe that the effects of stress and vulnerability to disease is We can teach our kids to do in childhood, when faced with the stresses of life, cannot resist. Based on the findings glucose hemoglobin difference between control and experimental groups after stress management training are significant. It seems that stress management training in cognitive-behavioral approach to reduce blood glucose in diabetic patients has hemoglobin. From a physiological perspective, it can be explained as a reaction to war or evade a series of biochemical changes, we know that the man prepares to deal with stress. Exactly what the fight or flight response in the body is to Feel any real or imagined problems can cause biochemical changes in the body. Here are the important effects of stress inoculation training on blood sugar control in diabetics found. In fact; stress management in addition to improving the overall health of the fluctuations in their blood sugar levels reduces [4]. Overall, taking into account the findings and limitations of this study we can conclude that stress management training, physical and mental health, cognitive behavioral help diabetics control blood sugar levels and optimize them to be useful better life. Professionals and patients with diabetes should have access to a psychologist as part of the treatment is emphasized by the America Diabetes Association (Diabetes Association of America, 2008), However, due to the high prevalence of diabetes and other chronic diseases, lack of Psychologists And mental health professionals lack sufficient insurance cover this in our country, as well as to avoid the rising costs of healthcare - patient care, providing stress management training as a group of short, It can be very beneficial and will help to reduce the problems of these patients. The program is taught in this study is a comprehensive program based on cognitive-behavioral and problem-focused confrontation, such as problem solving, time management and cognitive restructuring covered. With regard to economic, social and psychological lots of diabetes on individuals, families and society imposes these findings for patients with diabetes mellitus and mental health professionals and promising.

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REFERENCES