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Research Article

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The Effect of Group Hope Therapy on Happiness of Patients with Type II Diabetes Who Referred To A Diabetic Clinic at Southeast of Iran

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Abstract

Objective and background: *Type II diabetes is one of the most prevalent chronic diseases that reduce happiness. Group hope therapy can be used to increase happiness of such patients. The present research aims to determine effectiveness of group hope therapy on happiness of patients with type II diabetes who referred to a diabetic clinic at southeast of Iran.*

Method: *This is a quasi-experimental study. Statistical population is all patients with type II diabetes who referred to a diabetic clinic at southeast of Iran. Among them, 40 individuals were selected based on inclusion criteria and they were placed in intervention and control groups using random numbers' table. Intervention group received group hope therapy within 8 sessions. Oxford happiness questionnaire was used. Data were analysed using descriptive and inferential statistics such as independent t and paired t tests.*

Results: *Happiness was significantly increased in intervention group after group hope therapy (P< 0.001). Moreover, mean happiness in control group was increased after group hope therapy but it was not significant (P= 0.22).*

Conclusion: *Results showed that group hope therapy improved happiness of diabetic patients and it can be used by healthcare team.*

Keywords: hope, group therapy, happiness, type II diabetes, Iran

Introduction

Diabetes is a chronic metabolic disease and one of health problems especially in developing countries [1]. Generally, it has been reported that over 285 million patients were affected by diabetes in 2010 throughout the world and it is predicted that the number of diabetic patients will increase up to 350 million individuals in 2020 and they will be over 438 million in 2030 [2]. It has been reported that prevalence of diabetes is 24% in individuals over 40 years old in Iran. In addition, the number of individuals with such disease is increasing by 0.4% after age 40 per year [3]. Diabetes is the most cause of amputation, blindness, chronic failure of kidney and it is one of risk factors of cardiac diseases [4]. Financial burden and cost of physician office visit for diabetes is annually 10 billion dollars in Iran. Although, advances made in medicine have increased life expectancy of diabetic patients, they are grappling with adaptation problems. In current century, the main challenge of caring such patients is care of general health, quality of life, enjoyable life and promotion of their mental health [5, 6]. Researches indicated that socio-mental problems, irritability, anger, depression and anxiety in diabetic patients are higher than normal individuals [7]. Therefore, patients with diabetes have to change their life styles basically. Increase of happiness is one of the most important changes in life of such patients [8].

Happiness is a personally pleasant state that results from positive emotions. Evidence show that happiness generates energy and pleasure and it protects human against mental pressures and ensures his/her health. Happiness is the product of individual's positive judgment from life. Such judgment is not imposed externally rather it is an internal state [9].

There are many non-medicinal methods to help happiness and

adaptation of patients with diabetes. One of such methods is hope therapy [7]. Hope is one of the most basic concepts in positive psychology. As a factor for life richness, hope enables individuals to see a perspective beyond the current situation [10]. Several researches indicate that hope gives meaning to life, it helps individuals adapt with disease and related problems, reduces their mental problems and promotes their quality of life and socio-mental health. Hope is considered as one of coping strategies for adaptation with incurable diseases [11]. Study of Snyder showed that patients with chronic diseases who were undergone hope therapy had more appropriate responses to stress and they were more resistant during treatment thus they accepted recommended treatments [12]. Results of the study conducted by Ghazavi et al in 2015 showed that hope therapy increased hope in diabetic patients in intervention group [13]. Sadat Raeisian et al showed that hope therapy reduced considerably depression of women addicted to drugs [14]. Namdari et al. indicated that hope therapy was an effective intervention to correct and improve behavioural empowerments [15].

Since statistics of patients with diabetes is increasing in the world especially in developing countries and Iran is accounted as one of such countries and such disease is highly effective on physique and mind of patients, it is inevitable to increase happiness and hope in such patients. Therefore, group hope therapy can be used for them. Nevertheless, no research has addressed the effect of education of group hope therapy on happiness of patients with diabetes. Therefore, the present research aims to study the effect of group hope therapy on happiness of type II diabetic patients who referred to a diabetic clinic at southeast of Iran.

Methods and Materials

This is a quasi-experimental study conducted on two groups: intervention and control. The research was conducted in a diabetic clinic affiliated to medical science university of Sirjan at southeast of Iran. The research lasted from October to March 2015. Statistical population includes all patients with type II diabetes who had medical records and referred to clinic for care and treatment. Inclusion criteria were willingness to participation, patients who were affected by type II diabetes based on medical record and were able to participate in group therapy sessions. Exclusion criteria were participation in psychological sessions at the same time, consumption of psychiatric medications, acute depression and recent death of one of close relatives.

Sample size was determined based on the study of Ghasemali et al using following formula with 95% confidence and 90% power [16]. Therefore 15 individuals were placed in each group. The number of each group was increased up to 20 individuals due to probability of dropout.

$\alpha<0/05$
$d=12/25$
$1-\beta=90\%$

$$n=\frac{(Z_{1-\alpha/2}+Z_{1-\beta})^2(S_1^2+S_2^2)}{(\mu_1-\mu_2)^2}=\frac{(1/96+1/28)^2(102/77+86/04)}{(12/25)^2}=15$$

Firstly, happiness of all 400 patients that have been admitted to this center was assessed. Among 80 individuals who obtained mean score below 40, 40 individuals participated in the study by convenience sampling. After taking informed consent, they were allocated into intervention and control groups (20 individuals in each group) by using random table. Data were collected by a two-part questionnaire. The first part includes demographic questionnaire such as gender, age, marital status and education level. The second part was Oxford happiness questionnaire (OHQ). This questionnaire contains 29 items scoring between 0-87. Therefore, the highest score is 87 suggesting the highest happiness and the lowest score is zero suggesting dissatisfaction of subjects with life and their depression. The validity of this questionnaire was confirmed by Noorbala et al in Iran. They also reported the reliability of questionnaire as 92% via splitting method [17]. Questionnaires were completed by both groups. In intervention group, hope therapy sessions were designed and implemented within 8 sessions for 90 minutes. Hope therapy was conducted weekly for two sessions. Each session consisted of four parts. In the first part that lasted 30 minutes, summary of tasks and discussions of previous session were expressed. In the second part that lasted 20 minutes, group hope therapy was taught. In this part, participants learnt a new skill about hope. In the third part that lasted 30 minutes, application of skills in daily life was discussed. Participants were encouraged to express their problems explicitly and to help each other solve problems using hope skills. Materials and assignments related to next session were expressed within ten minutes at the end of each session. When one participant was absent in one session, he/she was taught materials in previous session individually. Sessions were held as follows:

Session 1: structure of sessions, educational goals and hope based on Snyder theory were introduced.

Session 2: exploration of hope growth, necessity of its presence and effect on wellbeing were discussed. A therapeutic relationship was made with participants and dynamic process of intervention group was considered.

Session 3: participants were asked to define their life stories

Session 4: organizing stories based of three main components of Snyder's hope theory including goal, agent and pathways. In addition, it was tried to identify hopes in lives of participants and past achievements were considered to identify agent and pathways.

Session 5: participants were asked to provide a list of current events and important dimensions of life and to determine their importance.

Session 6: expressing appropriate goals based on Snyder's theory and encouraging them to determine goals in each aspect of life

Session 7: expressing features of appropriate pathways and finding proper strategies for reaching determined goals

Session 8: expressing strategies for protecting agent (for example, participants were asked to do their best for reaching goals via mental practice)

All individuals in intervention group (20 persons) were taught in one group. Diabetic clinic was the place where sessions were held. Hope therapy sessions were held by the researcher who passed practically such sessions under control of master of psychology. Routine educations of clinic were presented for control group

and no intervention was done. After intervention, both groups recompleted the questionnaire. Data were analyzed by SPSS version 21 using statistical methods such as inferential and descriptive statistics. Mean and standard deviation were used from descriptive statistics and independent T and paired T tests were used from inferential statistics.

Ethical considerations

We get the ethical code with this number 1395.IR.KMU.REC and Participants were ensured that they could participate in the research voluntarily, their information was confidential, they could withdraw the study whenever they want and they would be informed about research results.

Results

Results obtained by both groups showed that there was no significant difference between groups regarding demographic variables (P> 0.05). Mean age of individuals in intervention group was 46.35±10.17 and mean age of individuals in control group was 49.10±9.05. The number of women was higher than men (60%). The majority of individuals participated in the research were married (55%). Most individuals in intervention group had diploma (35%) and most individuals in control group had primary degree (40%) (Table 1). Mean duration of disease was 9.35±5.3 and 8.5±5.94 in intervention and control groups respectively.

Table 1: demographic features of participants

			Percent	Frequency	P value
Gender	Intervention group	Female	60	12	0.18
		Male	40	8	
		Total	100	20	
	Control group	Female	65	13	
		Male	35	7	
		Total	100	20	
Marital status	Intervention group	Married	11	55	0.65
		Single	9	45	
		Total	20	100	
	Control group	Married	11	55	
		Single	9	45	
		Total	20	100	
Education	Intervention group	Primary	5	25	0.26
		Elementary	3	15	
		Diploma	7	35	
		University	5	25	
		Total	20	100	
	Control group	Primary	8	40	
		Elementary	2	10	
		Diploma	6	30	
		University	4	20	
		Total	20	100	
Job	Intervention group	Self-employed	4	20	0.21
		Employee	5	25	
		Housekeeper	7	35	
		Unemployed	0	0	
		Others	4	20	
		Total	20	100	
	Control group	Self-employed	3	15	
		Employee	3	15	
		Housekeeper	10	50	
		Unemployed	2	10	
		Others	2	10	
		Total	20	100	

The mean score of happiness after intervention was 63.2±22.7 and 42.10±23.6 in intervention and control groups respectively. Results of T test suggested that a significant difference was found between intervention and control groups regarding happiness (P < 0.001). Mean happiness in control group was increased after the study but such difference was not significant (P = 0.22 (table 2).

Table 2: results of T paired tests for mean happiness before and after intervention in both groups

		Mean	Standard deviation	T	Significance level
Intervention	Before intervention	52.6	18.24	- 5.46	P < 0.001
	After intervention	63.2	22.7		
Control	Before intervention	40.05	11.7	- 0.90	P<0.22
	After intervention	42.10	23.6		

Discussion and conclusion

Results indicated that group hope therapy can be effective on happiness of type II diabetic patients in intervention group. The reason may be that hope is a strongly adaptive mechanism among patients with chronic diseases such as diabetic patients such that hopeful individuals can tolerate the disease more easily [18].

Results of the study conducted by Ghazavi et al is consistent with those of present study and they showed that hope therapy in patients with diabetes increased hope in intervention group compared to control group [7]. In addition, the study conducted by Khoshnoud et al indicated that education of life skills increased significantly happiness and hope of patients with type II diabetes [19]. Several studies were conducted on diabetic and non-diabetic patients and all results were consistent with present study suggesting the effect of hope group therapy [20]. Hankins, Klausner [22], Irving et al [21] showed in their researches that hope therapy led to increase of hope and reduction of depression in participants. Research of Azizi et al (2016) in Kermanshah showed that hope therapy was effective on increase of happiness in elder lies [23]. Results of the study conducted by Ahari et al in 2012 revealed that group hope therapy led to increase of hope and reduction of depression among mothers of children suffering from cancer [24]. Results of the study conducted by Sharifi et al (2015) in Isfahan showed that group education based on Snyder's hope theory led to increase of happiness in elder lies [25].

It can be concluded that hope therapy increased behavioral empowerments such as self-discipline, humility and forgiveness.

Individuals with high self-regulation felt more comfortable and more compatible with others. They also were more satisfied with interpersonal relationships. Moreover, they reported higher self-esteem and self-discipline [25].

Hope is a mental and positive motivational state based on planning to reach the goals and it is the product of interaction with environment. Hope is considered as a coping strategy in adaptation with problems even incurable diseases. In addition, as a multidimensional, dynamic, powerful healing factor, hope can play important role in adaptation and mental health of diabetic patients. Most psychological problems of patients with diabetes are diet, limitation of activity, invasive monitoring of blood sugar, daily injection of insulin, physically chronic complications, hospitalization, and short lifetime. Mental disorders have been seen in one fourth of inpatients in medical wards and they are more prevalent in diabetic patients than public. However, unfortunately they are remained non-diagnostically [26]. It can be said that hope therapy was very helpful to facilitate adaptation, health and prevention from adverse effects of mental pressure. This method helps individual grow his/her abilities, information, orientations and hope for healthy life leading to increase of happiness. Nevertheless, hope therapy can have positive effect on individuals. If individual feels that he/she has problems as same as others, he/she will accept and adapt with reality and disease more easily. Reduction of happiness in diabetic patients may be one of disease effects resulting from stressful nature of disease. As a result, hope therapy will help such patients to cope with this disease [7].

Conclusion

Generally, the most important result of the present research has been the effect of hope therapy on happiness. Happiness of patients with type II diabetes was more favorable by intervention of hope group therapy. Authorities and therapeutic centers should require applying effectively positive strategies, increase of life expectancy and happiness in such patients. Therefore, it is suggested that short- and long-term follow ups should be used in further researches to study permanent effect of hope therapy education. Since it is possible that effects of therapy are not continuous after one month and posttest, therefore, it is suggested that supportive sessions are held after completion of hope therapy sessions to maintain therapeutic effects in long term. Another limitation of present study is that sessions were controlled and held by the researcher.

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