The effectiveness of time perspective therapy on the quality of life-related to health and the Health Locus of Control in patients with type 2 diabetes and sexual dysfunction

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Abstract

Aim: This study aimed to investigate the effectiveness of time perspective treatment on health-related quality of life and Health Locus of Control for patients with Type 2 diabetes with sexual dysfunction. **Methods:** the current research method was a Semi-experiment and its design was pre-test post-test with the control group. The statistical community of this study formed all patients with Type 2 diabetes with sexual dysfunction visiting the Persian diabetes clinic in Mashhad in 2024. 30 of these people were selected by targeted non-random sampling and were replaced in two experimental and control groups randomly. The experimental group underwent time perspective treatment for 6 sessions of 60 Minutes, and the control group underwent a waiting list. Health-related quality of life tests (1992) and Health Locus of Control Elston et al. (1978) were used to collect data in both pre-test and post-test stages. Raw data were analysed by the multivariate analysis of variance (MANOVA) test in SPSS 24 software. **Results**: The results showed that after controlling the effects of pre-test, there was a significant difference between the average post-test scores of the two Tests and control groups in variables on health-related quality of life and Health Locus of Control of patients with Type 2 diabetes with sexual dysfunction. **Conclusion:** time perspective treatment affects health-related quality of life and Health Locus of Control for patients with Type 2 diabetes with sexual dysfunction.

Keywords: Time perspective Treatment, Health-related Quality of Life, Health Locus of Control, Type 2 diabetes, Sexual dysfunction.

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Introduction

Type 2 diabetes is known as one of the most challenging and dangerous chronic diseases (Davies et al, 2022) and is a progressive and multifactorial metabolic disorder (Riddle et al, 2022) that has increased in prevalence worldwide and has increased in the last year 2025 it increases by 5/4 percent (Kaiser, Zhang & Der Pluijm, 2018). Type 2 diabetes is characterized by a defect in insulin receptors on the cell membrane of the target cells, which in this case develops a type of resistance or decrease in insulin sensitivity in the body and type 2 diabetes is caused by the interaction between hereditary, environmental and behavioral factors occurs in people. Given the nature of diabetes and its long-term complications, it is classified as a chronic disorder that has no definitive but manageable treatment that has many consequences (Mills et al, 2022). The consequences of Type 2 diabetes include sexual dysfunction, which is a common complication of diabetes (Karimi-Valoujae, Hasani-Moghaddam, Yousefi & Khani, 2022). Sexual function is part of human life and behavior and is so intertwined with a person's personality that it seems impossible to regard it as an independent phenomenon (Milani, Dawson & Velten, 2021). Sexual function is defined as the performance of sexual intercourse or other sexual activities or the ability to perform them. It is the physical manifestation of the emotional need of people for acceptance, affirmation, and cohabitation. Therefore, sexual function is part of sexual health thus the World Health Organization considers sexual health to be a kind of harmony of the mind, feeling, and body of the individual that leads to the completion of personality, connection, and Love (Saberi, Salehian & Amiri, 2021). So any disorder that leads to dissonance and therefore dissatisfaction with sex can lead to sexual dysfunction (8). Sexual dysfunction can be associated with emotional dysfunction related to sexual dysfunction, personality, social, emotional, and friendship, leading to social problems such as crimes, sexual assaults, mental disorders, and Divorce (Karimi-Valoujae et al, 2022).

Another problem that people with Type 2 diabetes experience with sexual dysfunction seems to be a decline in health-related quality of life. Diabetes is a disease that plays an important role in reducing health and quality of life (Ghasemi, Rezaei & Sadeghi, 2022). Health-related quality of life is one of the most important indicators of Health (MahmodiTabar & Safarzadeh, 2021). According to the World Health Organization, quality of life, people's perception of their position in life in terms of culture, and the value system in which they are born is their goals, expectations, standards, and priorities, so it is completely individual. It cannot be seen by others and it is based on people's perception of different aspects and their lives are strong (Malik et al, 2022). Over the past 20 years, interest in evaluating, and improving the quality of life of patients with chronic diseases has increased dramatically and improving the daily performance and quality of life of patients with chronic diseases has been targeted (Prather, Baughman, Alexandrov & Stanfill, 2022). Diabetes reduces the quality of life of the person affected by influencing different dimensions of life, and it is necessary to carry out therapeutic and care measures to improve the quality of life and health status of patients with diabetes (Abdelghani, Hamed, Said & Fouad, 2022). The results of the research indicate a positive relationship between blood sugar control and management and improved health-related quality of life in people with diabetes (Jafari, Moshki, Ghelichi-Ghojogh & Nejatian, 2024; El-Radad,

Sayed Ahmed & Eldahshan, 2023). Mello et al (2022) in a study, they concluded that the time landscape changed over different ages and that more emphasis was associated with higher self-esteem compared to other periods with lower self-esteem and emphasis on the present and future jointly with higher self-esteem. Morgenroth, Keck & Gensicke (2021) in a study, they concluded that a balanced time perspective improved emotion regulation and other metacognitive skills and had a meaningful relationship with well-being and mental health. Hidaka et al. (2021) found that time prospects in patients with diabetes mellitus can help promote insight into the disease and achieve therapeutic goals through improved self-efficacy and self-care. Iranpour, Erfani & Ebrahimi (2018) in a study, they concluded that there is a direct meaningful relationship between time prospects, quality of life, and happiness. Mohammadi, Danesh & Taghiloo (2017) in a study, they concluded that the dimensions of the time perspective, including the positive past, the hedonistic present, and the future in a positive way, and the negative past and the algebraic present in a negative way, predict the quality of life.

Other variables that apparently can affect the health of people with Type 2 diabetes with sexual dysfunction are the source of control in many areas of psychology, from physical health to progress to excitement (Álvarez-Rodríguez et al, 2022). The source of control was first proposed by Rotter (1966) in line with the social wind theory. A source of control is a structure that defines how a person perceives events according to whether they are considered consequential or modifiable by their behavior (internal control source) or the behavior of other people or luck (External Control source). As a result, about patients with an internal source of control are those who consider their health to be the product of their own behavior or actions and therefore are those who can control the events that happen to them. Conversely, a patient with an external source of control considers their health to be the result of luck and/ or other factors beyond their control (Galvin, Randel, Collins & Johnson, 2018). People with an internal control Source believe that they can shape life's events themselves, while people with an external control Source believe that events are controlled by fate, luck, and fortune, or by an external source of power (Peltokorpi, Feng, Pustovit, Allen & Rubenstein, 2022). From Rater's point of view (Rotter, 1966) the source of control is a generalized expectation, he believes that people with an internal source of control are generally more compatible than people with an external source of control. Research has shown that people with an internal control Source Value their skills and developments more and are more alert to environmental cues they use to guide their behavior. People who have an external control position also think that reinforcements are controlled by external factors and that receiving reinforcements depends on other people and Destiny (Dopelt, Bashkin, Asna & Davidovitch, 2022; Caliendo, Cobb-Clark, Obst, Seitz & Uhlendorff, 2022, Mirkamali et al. 2013). People with a source of internal control have a strong belief in the decision-making of health behaviors and hold themselves accountable for their health.

 In contrast to people with external control sources, they usually do not consider themselves directly responsible for their health and believe in the influence of fate, the chances of a doctor, and others regarding their health or illness (Naidoo & Wills, 2000). Olivera-Figueroa et al (2023) found that promoting a balanced time perspective reduces cultural stress, increases adaptive coping, and improves mental and physical health.

Jacobs-Lawson, Waddell & Webb (2011) and Stahl (2009) also found in research that a balanced time perspective can positively affect the source of Health Control. Fathabadi, Haji Ghorbani Dolabi, Arjmandnia & Sadeghi (2019) also found that there was a meaningful correlation between the source of internal health control and others, and the source of Health control of chance with blood sugar levels. Taheri & Ghasemi (2024) in a study, they concluded that there was a meaningful negative relationship between the source of chance control and self-care behavior in people with diabetes.

Treatments that seem to be able to be used to influence the psychological health of patients with diabetes mellitus are the treatment of time prospects. Evolutionary time Perspective Therapy from cognitive behavioral therapy is a goal-oriented psychotherapy. Much of this evolution is the quick, easy, and effective way to treat time prospects in clinical settings and a self-help tool. This treatment helps a person achieve balance in all aspects of their life. Mental time travel and time perspective provide an opportunity to change the empirical perspective and stimulate metacognitive skills for emotion-focused coping (Morgenroth et al, 2021). Treatment changes the perspective of time from past to present, from negative to positive, and opens the path to the best that has not yet happened to the individual (.Lang & Rupprecht, 2022). Time vision therapy has been effective for a range of people, from veteran war veterans and survivors of accidents, attacks, abuse, and neglect to individuals, couples, and families looking for a new way to manage day-to-day stress (Baird, Webb, Sirois & Gibson-Miller, 2021). Time vision therapy uses cognitive tools that enable users to re-focus thoughts on more productive paths that lead from a negative past to a more hopeful and purposeful future. Those who use Time vision therapy are enthusiastic and excited (Kuan & Zhang, 2022). KaramiBorujeni and colleagues (KaramiBorujeni, Rabiee & HajiHasani, 2022) reported in their study that treating time prospects improves the partial balance of time prospects. Zabihi, Tizdast & Zarbakhsh (2022) also showed in research that time vision therapy had a significant impact on improving mental well-being, functional flexibility, and mental cohesion. Przepiorka & Sobol-Kwapinska (2021) found in a study that the dimensions of the temporal view predict positive orientation even after controlling personality traits. The work was observed in all three countries. Przepiorka et al (2020) came to this conclusion in a study gratitude plays a mediating role between the dimensions of time perspective and life satisfaction. In addition, the study by Jannabadi and Jafarpur (Jenaabadi & Jafarpour, 2019) indicated the effectiveness of Time Perspective Therapy in psychological cohesion and perceived stress. Mousavi, Hasanzadeh & Dousti (2019) also noted in their research the effectiveness of time vision therapy on depression and social health.

Due to the undeniable effect of sexual function on various aspects of a diabetic's life, it is necessary to address it. Sexual problems are characterized by problems with the ability to respond sexually or gain sexual pleasure. Despite the high prevalence and influential nature of sexual dysfunction disorders, few studies are available on the psychological, physiological, and cultural content of sexual dysfunction, and despite the evidence that there is an incidence of sexual dysfunction in people with diabetes. Also, given the lack of interventional research to introduce and examine the effectiveness of new therapies, especially the treatment of time vision about psychological problems of people with

diagnosis of sexual dysfunction with diabetes, and on the other hand, the specific and specific characteristics of time vision therapy, whose main focus is on changing a person's perspective from past to present and from negative to positive, the main question of the present study was how does the treatment of time vision affect the quality of life associated with health and the source of Health Control for patients with Type 2 diabetes with sexual dysfunction?

Methods

The present study was a semi-experimental pre-test with the control group. The statistical community of this study formed all patients with Type 2 diabetes with sexual dysfunction visiting the Persian diabetes clinic in Mashhad in 2024. The research sample included 30 men and women with sexual dysfunction who were selected from the statistical community as targeted samples as well as having entry criteria. In experimental research, the minimum sample size per subgroup can be considered as 15 people (Sarmad, Hejazi, & Bazargan, 2011). So the number of 30 of these selectors in the two Test and control groups were replaced by accidents. The test group was treated for 12 sessions of 60 Minutes and the control group was placed on a waiting list. The entry criteria were: Having sexual dysfunction based on DSM-5 diagnostic criteria, having a minimum cycle literacy, having passed at least 6 months since the diagnosis of Type 2 diabetes (with the approval of the doctor), not taking drugs that affect sexual desire and function such as antidepressants and antihypertensive drugs; not having any disease that affects sexual function (such as systemic diseases including liver, kidney and heart failure, thyroid failure); not having substance and alcohol abuse in the person and his / her spouse; not being in the period of pregnancy or breastfeeding; passing at least one year of permanent marriage; no serious accident within 6 months before the start of the study (death of close relatives); no infection Acute complications of diabetes, such as infection; over 20 years of age and lack of menopause; lack of experience in sex-oriented classes; lack of premature ejaculation or impotence; lack of mental illness such as depression in couples. Withdrawal criteria: unwillingness to continue treatment and absence of three sessions during the implementation of the psychotherapy protocol or absence of two consecutive sessions, diagnosis of other simultaneous chronic diseases in a person or his or her spouse during the intervention period affecting sexual function including cardiovascular, mental, thyroid and cancers; initiation of medications affecting sexual desire and function; the occurrence of an unfortunate incident such as the loss of a spouse or close relatives in the last 6 months; the presence of gynecological problems including vaginal bleeding; amputation organ during the period of follow-up; pregnancy.

1-health-related quality of life questionnaire (SF-36): health-related quality of life questionnaire was created by Weber in 1992 (Ware, 1993). The test is designed to assess health policies and generally assess health status in terms of physical and mental state. The questionnaire has 36 questions and 8 components and measures the quality of life associated with health based on the Likert spectrum with questions such as (how do you evaluate your health in general compared to last year). The components of this questionnaire include physical function, limitations of role play arising from physical health status, limitations of role play arising from emotional problems, Energy and

activity, emotional health, social function, pain, Public Health. The kronbach Alpha coefficient calculated in the waiting research Montazeri, Goshtasebi & Vahdaninia (2006) for this questionnaire was estimated to be above 0/7. The kronbach Alpha coefficient for the total instrument score in this study was 0/86.

2-Health Control source scale: the multifaceted health Control source scale was built by Wallston, Strudler Wallston & DeVellis (1978) to determine the source of people's health control. It is based on a set of characteristics that a person has a health control axis (source of Health control) of the inner or outer type. These characteristics are scaled and determine the type of Health control axis in people. The Health Control source scale includes three components: Health Control source for Influential People (questions 18-14-10-7-3-5), internal health Control source (questions 17-13-12-8-6-1), Health Control source for Chance (questions 16-15-11-9-4-2). This questionnaire is a self-reporting tool. The test should be on a six-degree Likert scale from I completely disagree (1) to I completely agree (6) to state the extent to which it agrees or opposes. The method of scoring the Health Control source questionnaire is that to get a score for each sub-scale, all the points of all the phrases related to the sub-scale in question are added together (45). In a study conducted in Iran by Mohammadi Zeidi, Pakpour Hajiagha & Mohammadi (2019) to standardize the Persian version of this questionnaire, the Kronbach Alpha coefficient for the entire tool was reported to be 0/82 and for the domains from 64/0 to 0/91. The Kronbach Alpha coefficient in this study was obtained for three components: the source of Health Control for influential people 0/83, the source of internal health control 86/0, and the source of Health Control for Chance 0/81.

The method of conducting the research was such that after coordinating and obtaining the research code of ethics from the Arab Researcher University, the necessary coordination was made with the specialized clinic of Persian diabetes in the city of Mashhad. At the beginning, diagnostic evaluation based on the information recorded in the Hakim software (all patient information and medical diagnoses, medications taken and ... It's recorded in the patient profile.) Patients with Type 2 diabetes had sexual dysfunction. After conducting a clinical interview to finalize the diagnosis of sexual dysfunction, 30 people who wanted to participate in the research were selected by targeted sampling method and randomly assigned to a test group and a control. After explaining the objectives, they were asked to answer the research questionnaires as a pre-test. In the next step, time vision therapy was applied to the experimental group by the researcher for 8 sessions of 90 minutes, and the control group remained on the waiting list. Eventually, after the intervention ended members of both groups responded to the above questionnaires as post-test. In addition, assuring the confidentiality of information and preparing the sample researcher mentally and psychologically to participate in the research was one of the ethical points of this research. This article is extracted from the first author's doctoral thesis with the code of ethics IR.UMA.REC.It's 1402.061. In this study, the data were analyzed by the multivariate covariance analysis test in version 24 of the SPSS statistical software.

Intervention program

The content of the Sessions is based on the time perspective therapy protocol taken from the book *Time Therapy* by Sword, Sword, Brunskill & Zimbardo (2014), which is based

on the Zimbardo time perspective theory. The treatment was performed in eight sessions of 90 minutes, once a week. The summary of the contents of these sessions is given in Table 1.

Results

The results of the demographic findings of the participants in the study show that the average age of the subjects in the test group was equal to 4/35 (with a standard deviation of 1/6) and the subjects in the control group 9/34 (with a standard deviation of 3/7). The study of education status among the two groups shows that people with undergraduate education levels had the highest percentage of education in the test and control group. The study of gender status among the two groups also shows that the highest percentage is in the test group and the female gende 8 r control group.

Table 1. Mean and standard deviation of health-related quality of life and source of Health Control in two Test and control groups

group	scale	Pre test		post test	
		Mean	standard deviation	Mean	standard deviation
Experiment	the source of effective health control	16/13	3/24	10/01	3/48
	Source internal health control	17/43	2/15	26/48	3/82
	Source Health Control odds	17/64	2/65	11/65	2/44
	Health-related quality of life	37/46	6/34	54/21	8/42
control	the source of effective health control	17/93	2/56	18/01	2/43
	Source internal health control	20/25	2/14	19/87	3/02
	Source Health Control odds	17/33	2/35	16/53	3/26
	Health-related quality of life	39/03	5/32	40/04	6/32

effective health control, the source of good luck health control, the source of internal health control, and the quality of life associated The results of Table 1 show the average score of the source of with the health of the test group in the pre-test phase, so the average score of the source of effective health control and the source of Health control of the test group has decreased. While the source of internal health control and the quality of life associated with the health of the test group have increased, but in the control group, there was no difference in the average of these scores. Descriptive data of the research variables are also presented in Table 1.

As shown in Table 2, the default equality of variances in all variables is confirmed in the post-test phase. Because the default normality of the distribution of scores is confirmed and the sample size of the two-Test and control groups is equal (n=15), the use of covariance analysis is unhindered.

Table 2. Levin test results in the study of Group variance equality in society

Variables	execution stages	coefficient F	degree of freedom 1	degree of Freedom 2	level of meaning
the source of effective health control	after the test	1/547	1	28	0/303
Source internal health control	after the test	1/239	1	28	0/402
Source Health Control odds	after the test	1/436	1	28	0/173
Health-related quality of life	after the test	1/280	1	28	0/110

In this study, covariance analysis was used to test hypotheses. Therefore, the assumptions of the covariance analysis were first examined. For this purpose, the mbox test was used to study the covariance matrix homogeneity hypothesis of dependent variables, and the Bartlett test was used to study the covariance matrix homogeneity hypothesis of the remaining covariance variables, which showed that the covariance hypothesis was established between the covariance variables. The Cosmograph-Smirnoff test was also used to check the normality of the distribution of pre-test and post-test scores, which showed no significant difference between the distribution of pre-test and post-test scores with normal distribution. Therefore, the assumption of normality of the distribution of scores was confirmed. In addition, the Levin test was used to assess the equality of variances. The results showed that in the pre-test and post-pre-test phases, the equality of variances in the research variables was confirmed. To check the homogeneity of the regression slope, the meaningful level of Group and pre-test interaction was used, which was not rejected according to the results obtained by the homogeneity assumptions of the

regression slope. Also, to use the multivariate covariance analysis test, the relationships between linear dependent variables must be examined and confirmed in this study. With the confirmation of the above assumptions, it was possible to analyze the covariance.

Table 3. Multivariate covariance analysis to compare health-related quality of life averages and sources of Health Control in post-test

Tests	values	F	degree of freedom of hypothesis	degree of freedom of error	Sig	effect size
Pillai effect	0.34	7.370	12	165	0.0001	0.38
Lambda Wilkes	0/41	4/184	12	140	0.0001	0/38
Hotellink effect	0.26	5.201	12	155	0.0001	0.38
The biggest root on zinc	0.26	6.640	4	55	0.0001	0.38

As the results of Table 3 show, the result of multivariate quarrance analysis suggests that Wilkes ' Lambda statistics are significant. That is, by controlling the pre-test effect, the difference between the two groups is significant in terms of the combined variable (P<0.01).The Etta component also indicates that 38% of the variance of the combination of health-related quality of life test scores and the source of Health Control is explained by Time Perspective Therapy.

The effectiveness of time perspective therapy on the quality of life-related to health and the Health Locus of Control in patients with type 2 diabetes and sexual dysfunction

Table 4. Covariance analysis to compare the means of health-related quality of life and the health control source in the post-test.

The source of changes	dependent variable	sum of the squares	degrees of freedom	mean of the squares	F	sig
Educational intervention	the source of effective health control	279302/170	3	279302/170	24/739	0.0001
	Source internal health control	38729/392	3	38729/392	14/367	0.0001
	Source Health Control odds	38219/391	3	38219/391	22/473	0.0001
	Health-related quality of life	738/930	3	738/930	18/093	0.0001
pre-exam	the source of effective health control	14672/362	3	14672/362	25/325	0.0001
	Source internal health control	3461/732	3	3461/732	16/342	0.0001
	Source Health Control odds	483/516	3	483/516	13/145	0.0001
	Health-related quality of life	47283/604	3	47283/604	11/234	0.0001
error	the source of effective health control	8532/349	56	402/452	-	-
	Source internal health control	3567/542	56	136/980	-	-
	Source Health Control odds	1326/767	56	54/651	-	-

Health-related quality of life	4/154	56	16/43	-	-

As the results of Table 4 show, there is a significant difference between the post-test scores of the source of effective health control (F= 24/739) and the source of Health control of chance (F= 22/473) (P<0.01), which indicates the meaningful effectiveness of time vision therapy in reducing the source of Health control of Effective People and Health control of chance in the post-test of the intervening group. So the research hypothesis is based on the effectiveness of time vision therapy in reducing the source of Effective People's Health Control and the source of good luck health control. Also, the results of the table show that there is a significant difference between the post-test scores of the source of internal health control (F= 14/367) and the quality of life associated with health (F=18/093) (P<0.01), which indicates the meaningful effectiveness of time vision therapy on increasing the source of internal health control and the quality of life associated with health in the post-test of the intervening group. Therefore, the research hypothesis is based on the effectiveness of time vision therapy on increasing the source of internal health control and health-related quality of life.

Discussion

The study aimed to investigate the effectiveness of time vision therapy on health-related quality of life and the source of Health Control for patients with Type 2 diabetes with sexual dysfunction. The first study found a significant difference between test and control groups in the Health Control source variable. The implementation of time vision therapy has reduced and increased the average scores of the subjects in the final or post-test. Thus, the scores of the source of effective health control and the source of Health Control have reduced the chances and increased the source of internal health control. The results of this study are consistent with several studies, such as the study of Olivera-Figueroa et al. (2023); Jacobs-Lawson et al. (2011); Stahl (2009).

In explaining this finding, it can be stated that in this treatment, by providing a safe and reliable environment, the group members were encouraged to pay attention to their lives in the past and express a different interpretation of their memories by expressing negative memories of the past. Techniques used in the treatment of time prospects (increasing positive factors in the past, riding the pleasure train in the present, and starting long-term and short-term planning for a positive future) help people gain the independence they need in choosing how to spend time and plan their lives. Focusing people's attention on the future (personal and sublime) helps a person to direct their life towards a meaningful view of life. Techniques used in the treatment of time vision focus on the future time dimension, which is postmodern and, relying on one's abilities and abilities, tries to draw a meaningful future that leads to personal growth. The underlying philosophy of using personal abilities to draw and formulate a meaningful life in the light of looking to the future is self-acceptance. In other words, one of the basic principles of using personal abilities to draw and formulate meaningful life in the light of looking to the future is assertiveness (both psychosocial and physical). One of the underlying principles of the

therapeutic time view, which is also indirectly seen in most techniques of this approach, is its acceptance of its strengths and weaknesses, the design of meaningful life and life (Sobol-Kwapińska & Jankowski, 2018), which increased the source of internal health control and reduced the source of Health control of chances and effective people in the sample group. On the other hand, the time orientation of people in the present, past, and future can shape positive or negative emotions in a person, thereby affecting people's reactions to different life events and situations (Przepiorka & Sobol-Kwapinska, 2021). Temporal vision therapy therefore affects the source of Health Control for people with Type 2 diabetes with sexual dysfunction.

Another finding showed a significant difference between test and control groups in the health-related quality of life variable. The implementation of time vision therapy has increased the average scores of the subjects in the final or post-test. The results of the study related to this finding are consistent with several studies such as Mosavinezhad & Rajabi (2019); Iranpour, Erfani & Ebrahimi (2018); Mohammadi, Danesh & Taghiloo (2017); Morgenroth, Mirzaeian et al. (2016), Keck & Gensicke (2021) and Hidaka et al (2021).

In explaining this finding it can be stated that irrational thoughts about present and future temporal attitudes and disappointments in obtaining positive outcomes and consequences in the future are exemplified by the decline and decrease of self-care associated with health and diabetes in the group and prevent them from working towards achieving goals and solving problems, and these factors create and increase stress and anxiety in them; the results of the research indicate the negative impact of stress and anxiety on the quality of life associated with the health of people with Type 2 diabetes with effective sexual dysfunction and yet the prospect of balanced time as a more positive alternative to life is that It takes a person away from any particular time bias (Osin & Boniwell, 2024). Zimbardo & Boyd (2008) believe that as the first step to improving quality of life towards success and health, people's outlook on the present, past and future must be balanced. Time vision therapy is a new time-based therapy that focuses on the perception of the past, present, and, future of people to achieve a time balance. The provision of time vision therapy causes people to circulate between Past, Future and present time frames according to position, requests, values, and resource evaluation or cognitive and social evaluation (Zimbardo & Boyd, 2014). So the basis of time vision training helps these people to cope with problems and complex situations because of its impact on coping behavior. In the perspective of time, a person is taught that a person has a balanced view of both the future and the present, and can provide himself with a situation full of enthusiasm and energy while thinking about and measuring the consequences of his behavior. Measuring and examining situations has led to seeing different dimensions of a problem (such as problems caused by illness) and opens the way for a person to overcome problems and challenges, and a passionate and energetic person is motivated to achieve their desires, which improves the quality of life associated with their health. The group effectiveness of Time Perspective Therapy on health-related quality of life is therefore justifiable. About the limitations of the implementation of the present study, it can be stated that the present study was conducted in a sample of people with Type 2 diabetes with sexual

dysfunction, which should be cautious about generalizing to other people with diabetes. The use of non-random sampling was another limitation of the study.

Conclusion

According to the findings on the effectiveness of time vision therapy on health-related quality of life and the source of Health control of patients with Type 2 diabetes with sexual dysfunction and the multifaceted nature of psychological problems of people with Type 2 diabetes with sexual dysfunction and the specific characteristics of time vision therapy, the main focus of which is to change a person's perspective from past to present and from negative to positive, it seems necessary to examine the effectiveness of new therapeutic approaches. Future studies suggest using random sampling methods to increase the generalization of results. It is recommended that psychotherapists, aware of the results of this study, use Time vision therapy as an effective intervention to improve the psychological problems of these people. Diabetes is a chronic disease that plays an important role in reducing health and quality of life, and sufferers show high anxiety, self-care behaviors, and follow-up to low medical treatment.it is recommended to modify the source of Health Control and improve the quality of life of these patients for better self-care and control of diabetes. It is therefore recommended that Workshops be held to teach these treatments and other psychological treatments that affect the quality of life and source of Health control to health professionals and all other specialists who are in contact with these patients. The possibility of using this treatment after similar therapeutic interventions in other studies and confirming the effectiveness of this intervention is recommended as part of the non-drug treatment program in various treatment centers alongside the training provided to people with Type 2 diabetes.

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