



KLASICS

Kendari Journal of Maritime and Holistic Nursing

<https://stikesks-kendari.e-journal.id/K>

Volume 02 | Number 01 | Januari | 2022

E- ISSN: 2774-6577

Spiritual Therapy (Dhikr) Decrease Blood Sugar Levels in Diabetes Mellitus Patients in the Intensive Care Unit (ICU): A Study Literature

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Keywords: Blood sugar, Diabetes mellitus, Intensive Care Unit, Spiritual dhikr therapy,

Abstract. *Diabetes Mellitus is a metabolic disorder of the distribution of glucose that cannot produce and utilize the hormone insulin optimally so that it can cause an increase in blood glucose levels that exceed normal limits. Dhikr therapy can provide a relaxing effect and calm the soul which can affect the production of the hormone cortisol so that it can reduce blood glucose levels. The purpose of the study was to determine spiritual dhikr therapy to reduce blood sugar levels in diabetes mellitus patients in the Intensive Care Unit Room. This research is a literature review research by analyzing and comparing several articles through searches on journal sites such as Google Scholar and PubMed using the keywords Spiritual therapy of dhikr, blood sugar, diabetes mellitus and in 2016-2021. The result of this literature review is that spiritual remembrance therapy is efficient to reduce blood sugar levels in diabetes mellitus patients who are treated in the Intensive Care Unit. The conclusion of this study is that Spiritual dhikr therapy is a form of intervention that can be carried out by families or nurses as stimulation to patients who can help reduce blood sugar levels in patients with diabetes mellitus. Based on the results, it can be found that the spiritual dhikr therapy intervention can effectively reduce blood sugar levels in patients and it is recommended for type 2 DM patients to use spiritual therapies such as dhikr to lower blood sugar levels.*

Introduction

The Organization World Health (WHO) 2016 states that Diabetes Mellitus is the leading cause of death in the world. Diabetes Mellitus is a metabolic disorder often referred to as metabolic syndrome, which originates

from the distribution of glucose that can no produce or utilize the insulin hormone in the human body properly, so that glucose levels in the body increase and even exceed normal limits (Ida Vitani et al., 2020). Diabetes Mellitus is a disease that will continue to

accompany the sufferer for life, because Diabetes Mellitus can only recover if the patient can maintain or control their blood sugar levels, thus greatly affecting a person's quality of life (Mujabi & Yuniartika, 2018). Diabetes is often called the silent killer because diabetes can work slowly to damage the internal organs of the human body, so that diabetes can cause very deadly complications. Diabetes Mellitus is a deadly disease that is very scary for life in the world and can last forever. With the development of time, a person's lifestyle is also becoming increasingly unhealthy. This is seen in the bad habits carried out by humans in their lives. For example, eating fast food, fatty foods, foods that contain high sugar or contain artificial sweeteners and also they do not balance this with physical activity or exercise, so that this causes cases of degenerative diseases to increase, one of which is Diabetes Mellitus.

The International Diabetes Federation (IDF) states that diabetes patients in the world in 2019 had a total of 9.3%, which is equivalent to 463 million people, and this number continues to rise, so that in 2030 it is estimated to be 10.2% or equivalent to 578.4 million people. In 2045, it is estimated that it will increase by around 10.9% or amount to 700.2 million people. The World Health Organization (WHO) in 2016 stated that as many as 422 million people living worldwide have diabetes living in their bodies and it is estimated that it will continue to increase every year. Diabetes that is not well controlled can

lead to complications of other diseases. According to the prevalence of critically ill patients admitted to the ICU, the International Diabetes Federation (IDF) 2019, diabetes that is not well controlled can lead to complications of other diseases that cause 12 million patients to be in critical condition and treated in intensive care.

Diabetes-related weakening of the body can exacerbate the situation and have a substantial impact on morbidity and death. Of course, this has a significant impact on the life expectancy of diabetic patients, particularly those in intensive care units ICU (Muzaki & Arofiati, 2020). There are two types of diabetes mellitus: pharmacological and non-pharmacological. When doing pharmacological therapy to reduce blood glucose levels in individuals with diabetes mellitus, usually by giving oral hypoglycemic medications and administering insulin injections Baharudin Lutfi et al., (2019). Spiritual supplementary treatment is an example of non-pharmacological therapy, which is carried out by nurses accompanying patients in addition to taking medications. Complementary alternative therapies, or therapy with the goal of providing a soothing effect and improving thinking skills, can be provided to patients as pharmacological therapy. Dhikr therapy, which involves an element of trust, is a spiritual therapy that can be used to assist lower a patient's blood sugar level (Wahyuningsih et al., 2021). This dhikr spiritual therapy is simple to perform because

it is in accordance with a Muslim's faith and is practiced by the majority of Indonesians. This dhikr spiritual therapy is carried out as a form or way to cure disease (Fatimah, Rochmawati, 2020). Spiritual therapy is an important part of diabetes treatment. This therapy can impact the production of the hormone cortisol since it has a pleasant and relaxing effect on the soul. This can result in a drop in blood glucose levels in the body (Safitri et al., 2017)

Habiburrahman et al., (2019) discovered that the control group did not receive dhikr therapy treatment. When not given dhikr therapy, the experimental group's average blood glucose level is 175.65 mg/dL, whereas when given dhikr therapy, it drops to 167.06 mg/dL. By reading dhikr performed by patients with type II diabetes mellitus repeatedly to reduce sugar levels in their bodies, it may be determined that dhikr therapy is helpful and can provide relaxation for mental concentration. According to Amir et al., (2018), Spiritual treatment, when combined with Al-Ma'tsurat dhikr reading, increases stress perception, allowing the hypothalamic-pituitary-adrenal (HPA) axis to create a balanced amount of cortisol. There are numerous studies, one of which is Alimuddin, (2018), in addition to dhikr therapy.

Patients with diabetes mellitus who are treated in the Intensive Care Unit (ICU) generally exhibit physical weakness due to the disease's symptoms, according to the author's experience. Patients with diabetes mellitus would feel scared and apprehensive about

themselves in critical situations, thus it is important to address not only pharmacological but also non-pharmacological requirements, such as spiritual fulfillment, which can assist diabetic patients lower their blood sugar levels. With some of the findings above, the authors are interested in conducting a systematic review which aims to determine the spiritual healing of dhikr in patients with diabetes mellitus who are treated in the ICU from several research journals.

Method

This research method is carried out by means of a literature review or is a form of description of various relevant studies in the field or topic of dhikr spiritual therapy to reduce blood sugar levels in diabetes mellitus patients. Search by using various articles searched on Pubmed and Google Scholar. The inclusion criteria in this research are articles published from 2016 – 2021 which are accessed in full text in pdf form, and are limited to experimental studies. "terapi spiritual dzikir, gula darah, diabetes melitus, intensive care unit" are the Indonesian keywords, whereas "Spiritual Dhikr Therapy, blood sugar, diabetes mellitus, intensive care unit" is the English keyword. The literature review or systematic review, as well as articles that did not clearly describe the intervention and technique, were all excluded from this study.

There were four articles that met the review criteria once the article sorting process was completed. The articles are extracted after

they have been screened to see how many are still eligible for further study. Data was extracted by reading all four publications in their entirety and then jotting down the most noteworthy findings in each. The information was then combined utilizing narrative approaches. The authors grouped comparable

extracted data at this point. To make conclusions, the data from the four papers was evaluated for similarities and differences. The key data is tabulated after it has been analyzed. The flow of PRISMA is depicted in the diagram below (figure 1).

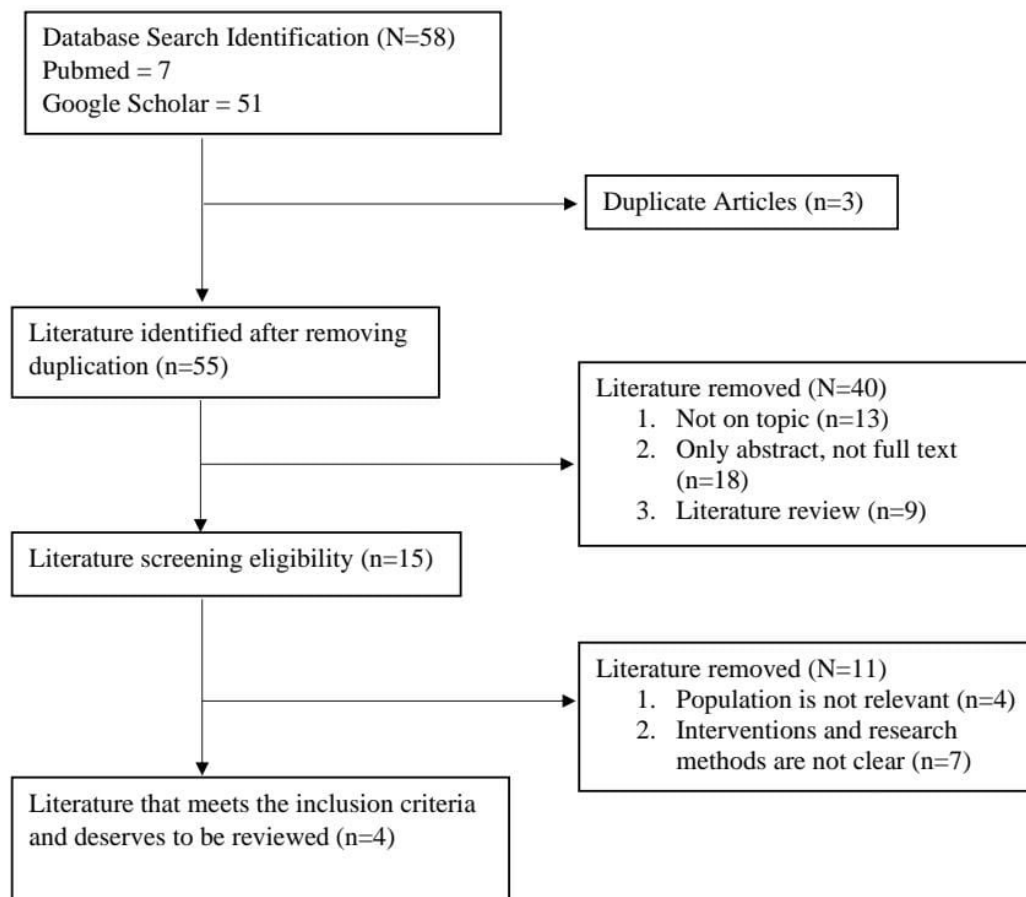


Figure 1. The flow of PRISMA

Results and Discussion

Four papers were obtained based on article data extraction, which were chosen from a review of spiritual dhikr therapy administered

to diabetic patients in the ICU. The previous researchers used an average of 28-40 research samples from the four selected articles. An observation sheet containing blood glucose

levels measured with a glucometer was used in the first and fourth paragraphs as the instrument. A blood sugar questionnaire and a depression anxiety stress scale questionnaire were employed in the second and third papers, respectively.

According to the findings of the review, four publications demonstrated that spiritual dhikr therapy can influence blood sugar levels in diabetic patients. The following results were obtained after summarizing the papers in tabular form (table 1):

Table 1. Extraction of data from articles that meet the criteria

No	Author/ Year/ Country	Title	Aim	Sample	Method	Intervention	Research result
1	Habibburahman, Yesi Hassneli, Y fitriana Amir (2018). Indonesia	The Effectiveness of Dhikr Therapy on Blood Glucose Levels in Type II Diabetes Mellitus Patients	To determine the effectiveness of dhikr therapy in lowering blood glucose levels in patients with type II diabetes mellitus.	The number of samples was 34 respondents, consisting of 17 respondents as the experimental group and 17 respondents as the control group.	Research method: the method used in this study is a quaisy experimental design with a non-equivalent control group design.	The intervention that will be given to the patient is measuring blood glucose levels in the control and experimental groups before and after dhikr therapy. Dhikr therapy (Murottal Al-Quran Ayat Kursi) for \pm 20 minutes twice a day for three consecutive days	The results obtained were the average blood glucose level in the experimental group was 175.65 mg/dL who had not been given dhikr therapy and after being given dhikr therapy, blood glucose levels decreased to 165.06 mg/dL.
2	Research by Faisal Amir, GondoMastutik, M. Hasinuddin, Suhartato Taat Putra (2018). Indonesia	Dzikh (Recitation) And Relaxation Improve Stress Perception and Reduce Blood Cortisol Level in Type 2 Diabetes Mellitus Patient with ADM	This study aims to determine the effect of remembrance and relaxation on improving stress perception and decreasing blood cortisol levels in patients with type 2	Consisting of 14 people in the control group and 14 people in the intervention group.	This quasi-experimental research uses a non-randomized control group design pretest posttest	The treatment of reciting the recitation of the verse of the chair and relaxation with 10-15 minutes is carried out every morning, afternoon and when you want to sleep for 6 weeks.	There is an average perception of stress in the intervention group which is much higher than in the control group which shows an increase in stress perception and when given dhikr therapy and relaxation, blood sugar levels decrease.

			diabetes mellitus.				
3	Shanti Wardaningsih, Dian Pepriana Widyaningrum (2018). Indonesia	The effect of prayer and dhikr al Ma'tsurat intervention on depression scores and blood sugar in patients with diabetes mellitus at Public Health Center Mlati 1	Knowing the effect of prayer and remembrance of Al-Ma'tsurat on depression scores and blood sugar.	number of samples 34 respondents which is divided into 17 respondents in the control group and 17 respondents in the intervention group	Method used Quasy experiment with (Non Equivalen Control Group) Pretest Post test	Giving prayers and remembrance of Al-matsurat and verses of the Qur'an for 10 minutes to the intervention group.	The results of the study that obtained differences in depression scores and blood sugar in the control group and also the intervention group showed significant differences
4	Sitti Fatimah M Arsad, Erna Rochmawati, Arianti Arianti (2020). Indonesia	The Effect of Dhikr Therapy on Blood Glucose Levels in Type 2 Diabetes Mellitus Patients.	Knowing the effect of dhikr spiritual therapy on blood sugar levels in patients with diabetes mellitus	The sample was 40 respondents, divided into 20 respondents in the experimental group and 20 respondents in the control group.	Quasy experiment with control group preposttes design	Diabetic oral therapy and also given dhikr therapy which is done by reading prayers, Asmaulhusna and by reading thayibah sentences which is done by reading a guide book or listening to it with an MP3 player, carried out with a duration of 15 minutes every day for 2 days	The results obtained from the t-test conducted in the two groups where glucose levels have a p value or equal to 0.000 or $p < 0.05$ this can of course be interpreted that therapy carried out with dhikr greatly affects the decrease in blood sugar levels in the body.

Decreased blood levels might occur when a patient's health is unstable and anxiety is a psychological disorder that is linked to other chronic diseases, including diabetes mellitus. Blood sugar levels in diabetic people fall as a result of a variety of circumstances. Navid et al., (2020) discovered a link between poor blood sugar control and decreased conditions in patients with diabetes mellitus, which is produced by a lack of motivation from their families, then gender, and a strong sense of fear about complications. Dhikr therapy, according to Safitri et al., (2017), has the effect of enhancing molecular signals and neurotransmitters in order to release endogenous opiates like engkephalin, which can cause sensations of euphoria and pleasure, as well as calm the body's response.

Yulianti & Armiyati, (2019) on an independent diabetes management module, guidance for spiritual dhikr therapy which is directed at developing a good attitude when sick. Before giving the treatment, the patients in the treatment group lacked tawakkal when they were facing the pain and after the treatment, 23 patients had a decreased level of tawakkal and only about 2 patients had a little sense of tawakal. Nowadays, there are so many people who come to seek healing from doctors and priests, but actually everyone has the potential to heal themselves. This can be done by applying the concept of This can be accomplished by beginning therapy approaches with the concept of surrendering and then standardizing them to rehabilitate a person. It has been shown to be effective in controlling and lowering blood sugar levels in

diabetic patient. According to Kusnanto (2018), spiritual and religious elements of life are one of the most important impacts on life and have a significant impact on a diabetic's condition.

Muzaki & Arofiati, (2020) did research on dhikr spiritual therapy and found that patients with diabetes mellitus who got dhikr spiritual support treatments experienced less anxiety, which resulted in lower blood sugar levels. Spiritual healing can provide intrinsic and vital components for caring for critical ill patient. According to Putri & Kusnanto, (2015) research, providing spiritual support in the form of stimulation of the Al-Quran's sound can enhance the Glasgow Coma Scale (GCS) in critically ill patients. There is also a journal kept by the author (Lukmanulhakim & Syukrowardi, 2018). Patients with diabetes mellitus and critical patients with hemodynamics can benefit from spiritual assistance, dhikr, and reading Al-Quran.

Conclusion

Spiritual Dhikr therapy is one of the approaches utilized to cure diabetes mellitus patients. This treatment can also be carried out by the patient's family, who work to reduce the patient's blood sugar levels.

According to the author's description of various research on the spiritual therapy of dhikr in patients with diabetes mellitus, the intervention of spiritual dhikr therapy can effectively reduce blood sugar levels in patients. Based on the findings of this literature review, it is proposed that patients with type 2 diabetes utilize spiritual therapy in the form of

dhikr to reduce blood sugar levels in their bodies in the intensive care unit (ICU) so that they can return to normal health.

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