

Meditation Healing is Accompanied by Mozart Music in The Management of Stress Levels of DM Patients Type 2

Rahmadaniar Aditya Putri¹, Nunik Purwanti², Siti Nur Hasina³, Riska Rohmawati⁴

Universitas Nahdlatul Ulama Surabaya

rahmadaniar@unusa.ac.id, noniek@unusa.ac.id, sitnurhasina@ac.id,
riskarohmawati@unusa.ac.id

ABSTRACT

Stress that occurs in type 2 DM patients can occur due to high levels of blood glucose, prolonged treatment and complications are experienced. Meditation Healing exercises accompanied by Mozart include a type of meditation practice that can help improve the cognitive performance, emotion, and behaviour of a person when facing stressful situations. The purpose of this research is to prove the influence of Meditation healing exercise accompanied by Mozart music in the management of stress levels of diabetes mellitus type 2. This research is Quasy research experiment using pretests method Posttest with control group design. Sampling techniques use a total sampling by picking up respondents who meet the criteria for both inclusion and exclusion with a sample number of 52 people. Instruments used to measure stress levels using the DASS (Depression Anxiety Stress Scales) Questionnaire 42. Data analysis results use T-Test with the significance of $P < 0.05$. Stress-level test results show significant differences between intervention groups and control groups with P -value = 0.000. MHE accompanied by Mozart has a positive impact in stress management and as one of the interventions that can be done routinely even daily, especially for people with type 2 diabetes.

Key words: Diabetes mellitus type 2; Meditation healing Exercise; Mozart's music; Stress

I. INTRODUCTION

Diabetes Mellitus is one of the chronic diseases that causes high morbidity and mortality rates. The disease is included in metabolic disorders characterized by an increase in blood glucose (hyperglycemi), thereby affecting energy production in cells. Based on data from Surabaya Health office in 2013, DM case in Surabaya City in 2009 as much as 15,961 increased to 21,729 sufferers in 2010, then increased again to be 26,613 in 2013 (Surabaya City Health Office, 2016).

Diabetes mellitus can be caused by various factors, including heredity, lifestyle change, improper diet, obesity, lack of physical activity, aging process, pregnancy, smoker and stress (Muflihatin, 2015). Psychological stress can occur due to high levels of blood glucose and complications of type 2 DM that can negatively impact patients (Smeltzer & Bare, 2015). It shows that physical factors can be a trigger to stress in type 2 DM patients. In the event of emotional stress, diabetics are not able to maintain glucose levels in the blood, do not keep the Diabetesnya diet and do not adhere to the diabetic therapy recommended by doctors (Badedi et al., 2016)

The management of DM can be done to correct the basic abnormalities that are genetic factors, insulin resistance and Beta cell insufficiency of the pancreas, so in fixing the disorder can be reflected in the treatment step. In addition to the pattern of treatment and therapy that must be

done periodically, a healthy lifestyle with food planning and physical exercise can keep the patient's glucose levels in order to stay controlled. Interventions in stress management may seem to alleviate stress symptoms in DM patients.

One form of physical exercise management in stress management is with Meditation Healing Exercise (MHE). MHE is included in this type of meditation practice. Meditation is very effective to help improve the cognitive performance, emotion, and behaviour of a person when facing stressful situations (Prayitno,2014). In the implementation of meditation to get a relaxing condition can usually be accompanied by music. His musical choices could be Mozart's music which included expressive classical music, but not overly emotional and his music was able to give strength to the senses, affecting the brain and the emotional state as well as the mood of a person (Putri, 2020).

II. METHODOLOGY

Experimental Quasy research with pre post test with control group design. Researchers divide the respondents into 2 groups: the control group and the treatment group. In this study, researchers used the DASS (Depression Anxiety Stress Scales) Questionnaire 42 by Lovibond & Lovibond (1995) in Crawford et al., (2003) to measure Stress. This questionnaire has been validated so there is no need to do validity and reusability testing because it has a value of validity and reusability with a value of 0.91 performed by Crawford and Henry (2003). To determine the level of stress, the instrument used is a questionnaire that was taken 14 special items for stress-level measurements. Data analysis using T-Test test. Hypotheses are accepted when the P value is < 0.05.

This study was conducted for 4 weeks. On the first day, the intervention group and the control group carried out the pre test by measuring stress levels and blood sugar levels. The intervention group will be given the Meditation Healing Exercise accompanied by Mozart music performed 30-40 times for 30 minutes and in a day done 3 times in the morning, afternoon, and evening for 3 consecutive days a week, while for the control group is given deep breath techniques and DM management. After four weeks, both groups were performed post-test. The sample determination was carried out on the control group and the treatment group with total sampling with a sample number of 52 respondents matched the criteria of inclusion and exclusion then divided 26 respondents of the control group and 26 respondents in the treatment group. The research was conducted in RSI Surabaya A. Yani who have obtained licensing from the location and declared Laik ethics with the number: 067/EC/KEPK/UNUSA/2020.

III. RESULTS

The result of stress variable measurements in type 2 DM patients in the intervention group showed that all respondents had decreased stress levels after being given MHE accompanied by Mozart music. The T-test results showed that the control group and the intervention group underwent a change with the value $P = 0.00$. MHE is part of a meditation exercise where the

goal is to help improve cognitive and emotional performance and behavior of a person when facing stressful situations. All types of meditation practice have a concept of self-observation of physical activity, training the level of consciousness of a person, and cultivate an attitude of acceptance (Albeniz Homels, 200: In Artsanthia & Sari, 2017).

Pre-test results with the use of DASS 42 questionnaire about the stress of type 2 DM patients in the treatment group almost completely have moderate stress as much as 19 people, mild stress as much as 6 people and not stressed as much as 1 person. In a control group of 20 people with moderate stress and 6 people with mild stress. The results of this study showed that there were no meaningful differences in the stress levels of both treatment groups and control groups before the MHE training was accompanied by Mozart music. The results of the pre-test group intervention or control group show the average stress value at moderate level.

Signs of stress experienced by respondents caused by frequent waking at night to urinate and can not sleep anymore, pain or tingling and numbness in the extremities also often felt, concerns in complications that will occur in the later days and concerns in the instability of blood sugar levels despite having arranged a diet that causes the respondent to feel disturbed in daily activities. This is in accordance with Nash (2014) stating that the specific cause of stress experienced in DM patients is afraid of long-term complications, worried about the occurrence of hypoglycemia, and anxiety about the influence of DM in families.

Post-test results after the MHE intervention was accompanied by Mozart music in the treatment group acquired respondents with moderate stress 12 Responden, 10 respondents mild stress and normal stress 4 people. In the control group, there were 16 respondents of moderate stress and a mild stress of 10 respondents. The results obtained from this study showed stress levels in the treatment group experienced a decline.

This research is in harmony with the results of research conducted by Lauche, et al, (2014) where the effect of regular and regular practice of meditation is not directly related to health perception in patients with chronic diseases, but respondents who do regular meditation report that the quality of life (related to physical pain) is felt better and more satisfied with his life. It is also appropriate according to Purnama Sari (2018) that the MHE techniques performed proved effective in reducing tension, anxiety, and relaxation will give results after 3 exercises. The respondents ' results are better health conditions and more balanced emotional conditions.

From statistical results shows the stress levels of the majority treatment group experiencing mild stress than previously moderate stress. In this study respondents conducted rhythmic respiratory exercises as much as 30-40 times for 30 minutes 3 times a day each day, in a sitting or sleeping position, as well as during the activities also accompanied Mozart music. The activity was conducted for 4 weeks regularly. MHE exercises begin by slowly taking a deep breath and feeling relaxed will cause a relaxed sensation in the body when exhaling, so that it will cause a relaxing effect involving the parasympathetic nerve and central nervous system. The function of one of the parasympathetic nerve is to reduce the production of the hormone adrenaline or epinephrine (stress hormones) and increase the secretions of nonadrenaline or nonepinephrine hormones that make the decline of tension and anxiety so that it becomes more relaxed and calm (Manocha, 2014).

The results of this study were processed and analyzed using T-test test obtained the result that MHE intervention accompanied by Mozart music to the stress level of type 2 DM patients obtained results that there is a decrease in stress levels in treatment group and control group. A significant reduction in stress on the treatment group, while in the control group obtained an insignificant reduction in stress. From the data, in the treatment group there was a decline in stress before and after the MHE intervention was accompanied by Mozart music in type 2 DM patients.

The success of a treatment is determined by the personal factors of the DM sufferer. The aspect of perception of the benefits or disadvantages of an action in the treatment is based on a strong commitment to develop empowerment on him (Putri, 2020). Patients suffering from DM should be able to regulate their own behavior to always control his blood sugar, whether it is behavior in increasing physical activity and improving healthy eating patterns to prevent complications by maximizing aspects including the psychosocial aspect that exists in him to determine the best option for improving his health status.

IV. CONCLUSION

Prevention efforts in correcting psychic disorders that are stress that can be done by meditation healing exercise and Mozart music. The presence of deep breathing increases the circulation of oxygen and improves blood flow in the body. With a relaxed body condition is expected to control a person's stress level for the better so that it can control blood sugar levels.

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