APPLICATION OF SURAH AR-RAHMAN MUROTTAL THERAPY FOR REDUCING PAIN LEVELS IN DIABETIC ULCER PATIENTS

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ABSTRACT

A diabetic ulcer is an acute complication that is feared by people with diabetes mellitus. In wound care often patients complain of pain and anxiety. Pain and anxiety begin during the process of removing the dressing and cleaning the wound. Nurses carry out non-pharmacological pain management to reduce pain in patients. Murottal therapy is a distraction technique for someone to read or listen to the holy verses of the Alquran. The aim of the study was to identify the benefits of applying the murottal therapy technique in reducing pain in diabetic ulcer patients undergoing wound care. Descriptive research method with case studies. The subjects of this case study were two patients with diabetic ulcer degrees I, II, and III. The instrument sheet uses an observation sheet of the NRS (Numeric Rating Scale) rating scale. Ar-Rahman murrotal therapy intervention for 3 days with a duration of 10-15 minutes. Respondent I before being given murrottal therapy with a pain scale of 6 (moderate pain). On day 3 there was a decrease in pain scale 3 (mild pain). Respondent II before being given murottal therapy with a pain scale of 5 (moderate pain). On day 3 there was a decrease in the pain scale to 2 (mild pain). The murottal therapy technique was able to reduce the level of pain, which initially experienced a moderate pain scale (4-6) and became mild (1-3).

Keywords: Murottal Therapy, Surah Ar-Rahman, Pain, Diabetic Ulcer

BACKGROUND

Diabetes mellitus is a disease due to ineffective insulin production so the balance of sugar in the body is disturbed (Mutmainah, Al Ayubi, & Widagdo, 2020). Hyperglycemia that occurs in the long term and is not controlled can cause damage to the nervous system and blood vessels such as atherosclerosis, thickening of the basement membrane, and changes in peripheral nerves. This can cause diabetic ulcers or gangrene (Nisak, 2021). Diabetic ulcers are an acute complication that is feared by people with diabetes mellitus (Kurnia, Sumangkut, & Hatibie, 2017). The presence of angiopathy results in decreased intake of nutrients, oxygen, and antibiotics resulting in wounds that are difficult to heal (Wijaya & Putri, 2015).

The International Diabetes Federation (IDF) in 2019 noted that 463 million people in the world suffer from diabetes mellitus which is expected to increase to 578.4 million people in 2030. In 2045 it is estimated that there will be an increase of up to 700.2 million people. In 2020, Indonesia has diabetes with a population of 18 million (Setiawaty, Risma Dianti, & Noviyanti, 2022). Meanwhile, the prevalence of diabetic ulcers in the world is around 14%, cases of non-traumatic amputation are 40-70%, and there are 85% of amputations in patients with diabetes mellitus. the prevalence of diabetic ulcer cases in Indonesia is 15% and the mortality rate is 32.5%, amputation is 23.5% (Kurnia et al., 2017). The results of interviews with nurses at the Lanang Children's Wound Clinic, Semarang from January to June 2022, the number of patients with diabetic ulcers was 35 people.

Diabetic foot ulcers are open sores that occur in about 15 percent of diabetic patients and are often found on the bottom of the feet (Alfaqih, Anugrah, & Khayudin, 2022). Wound care is often carried out by people who treat and care for the skin. Pain and anxiety begin during the dressing process and when treating the wound (Prihati & Wirawati, 2018). Pain is an unpleasant sensory and emotional experience due to actual or potential tissue damage. At the time of wound care, it can hit open nerve endings which can trigger nociceptors so that chemical substances increase the

perception of pain (Istiroha, 2018). A stimulus that comes from tissue damage or possible tissue damage (Bahrudin, 2018).

Diabetic foot ulcers are open sores that occur in about 15 percent of diabetic patients and are often found on the bottom of the feet (Alfaqih et al., 2022). In wound care often patients complain of pain and anxiety. Pain and anxiety begin during the process of removing the dressing and cleaning the wound. (Prihati & Wirawati, 2018). Pain is an unpleasant sensory and emotional experience caused by actual or potential tissue damage. During wound care, the open nerve endings can stimulate nociceptors so that chemical substances increase the perception of pain (Istiroha, 2018). Pain stimuli come from tissue damage or have the potential to cause tissue damage (Bahrudin, 2018). Regular diabetic foot care will prevent chronic complications of diabetic foot. Wound dressings should be changed 2 times/day. Debridement is an action to remove necrotic tissue, callus, and fibrotic tissue. Dead tissue is removed about 2-3 mm from the wound edge to healthy tissue. Debridement increases the production of growth factors that help the wound healing process (Muhartono & Sari, 2017).

Actions to reduce pain a nurse or health team can perform pain management either pharmacologically or non-pharmacologically. One of the non-pharmacological pain management is a distraction. Murottal therapy is one of the distraction techniques for reading the Koran, namely religious therapy where a person is read or listened to the holy verses of the Koran (Marliyana, 2018). Recitation of the holy verses of the Qur'an can also improve the body's chemical system which can lower blood pressure and slow down breathing, pulse, heart rate, and brain wave activity (Maharani & Melinda, 2021). Surah Ar-Rahman or the name of Allah which means "The giver of the blessings of the world and the hereafter" is a reminder to humans of the many forgotten blessings of Allah (Oktarosada & Pangestu, 2021). The effects of pain also affect daily activities. Clients who experience pain every day are less able to participate in routine activities. The purpose of this study was to determine the benefits of applying murottal therapy techniques for reducing pain in diabetic ulcer patients undergoing wound care.

METHOD

The research method used is descriptive with case studies. The subjects of this case study were two patients with diabetic ulcer degrees I, II, and III. The research was conducted in June 2022 at Anak Lanang Clinic, Semarang. The inclusion criteria in this study were patients aged 45-64 years, Muslim. The exclusion criteria for this case study were patients with hearing loss and no loss of consciousness. The instrument sheet uses an observation sheet of the NRS (Numerical Rating Scale) rating scale and standard operational procedures for distraction therapy in Surah Ar-Rahman. Ar-Rahman murrotal therapy intervention for 3 days with a duration of 10-15 minutes. Researchers conducted pre and post-intervention pain assessments.

RESULT AND DISCUSSION

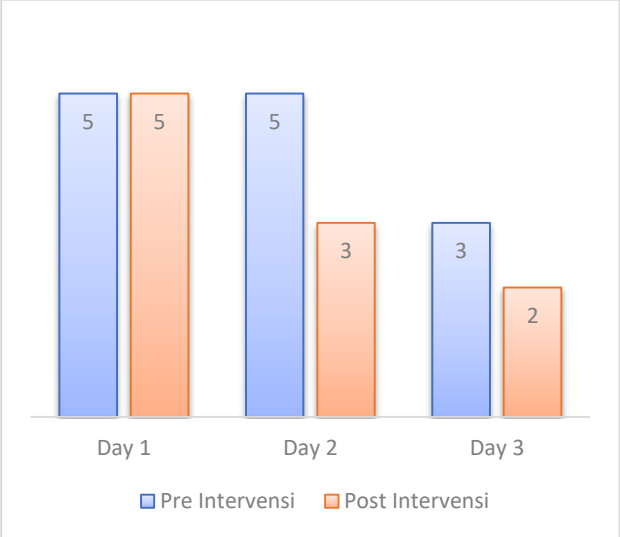

Diagram 1. Pain Levels in Respondent I pre and post-intervention Murottal Ar-Rahman Therapy

Based on diagram 1, it is explained that respondent I before being given murrottal therapy on the first day obtained a pain scale of 6 (moderate pain) and did not experience a decrease in pain after being given therapy. On day 2 there was a decrease in pain which was initially a pain scale of 4. For day 3 there was a decrease which was initially 4 on a pain scale of 3.

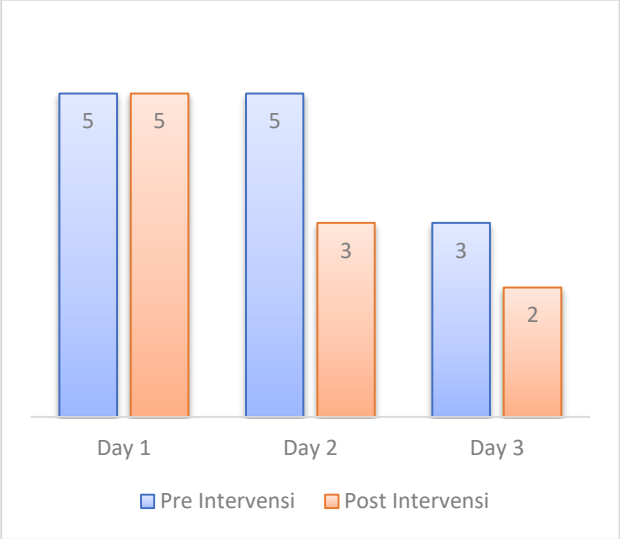

Diagram 2. Pain Levels in Respondent II pre and post-intervention Murottal Ar-Rahman Therapy

Based on diagram 2, it is explained that respondent II before being given murottal therapy on the first day of pain scale 5 is moderate and does not experience a decrease in pain after being given therapy. On day 2 there was a decrease in pain, which was initially on a pain scale of 5 to 3. On day 3 there was a decrease in pain from a pain scale of 3 to 2 (mild pain).

Diabetes Mellitus is a disease due to ineffective insulin production so the sugar balance in the body is disturbed (Mutmainah et al., 2020). Factors that can affect pain consist of physiological factors (age, fatigue, genes, neurological function), social factors (attention, previous experience, support from family and social) and spiritual factors (Novieastari, Ibrahim, Deswani, & Ramdaniati, 2020). This study found that the first respondent was 46 years old and the second respondent was 45 years old. This shows that age affects pain sensitivity due to physiological factors, chemical changes and changes in homeostatic mechanisms that affect the perception of pain in individuals. The older you get, the more you are at risk for diabetic foot ulcers, due to a decrease in insulin secretion or resistance, which results in a lack of body function in controlling high blood glucose. The level of education is one of the factors that determine the level of understanding of the patient's ability in pain management, the lower the education causes the increase in pain intensity. The education level of the two respondents in this study is high school. Other factors that can influence pain response are gender, age, culture and attention(Prihati & Wirawati, 2018). Causes of acute pain due to physical injuring agents such as amputation, burns, cuts, lifting weights, surgical procedures, trauma, and excessive physical exercise (PPNI Tim Pokja, 2017). Patients use maladaptive coping mechanisms in an effort to prevent the pain they feel, this will increase pain because pain becomes the center of attention. The role of nurses is needed in assessing how adaptive or maladaptive coping mechanisms are used by patients in responding to pain. This is to facilitate nursing interventions in reducing or eliminating the pain felt by patients during wound care.

Ar-Rahman murrotal therapy intervention for 3 days with a duration of 10-15 minutes. Research with the provision of murrotal therapy, the results obtained in both respondents before murottal therapy on the first day had moderate pain levels (5). Evaluation on the first day did not find a decrease in the pain scale in both respondents this is because the patient did not feel relaxed when listening to murottal. Evaluation on the second and third days there was a decrease in the pain scale this was because the patient had felt relaxed when listening to murottal. When a person receives a constant murrotal Qur'anic stimulus and there is no sudden change in rhythm, there will be a process of adaptation of cognators, namely perception, information, and emotion, and regulators, namely chemical, nervous, and endocrine which affect the cerebral cortex in cognitive and emotional aspects. then it produces a positive perception and

increased relaxation which causes an analgesic effect so that it can reduce the production of cortisol and other hormones so that pain decreases (Istiroha, 2018). When the respondent is heard chanting the holy verses of the Koran, in the EEG recording (electroencephalogram) delta waves in the frontal and central areas on the right and left sides of the brain if dominated by delta waves, are calm, comfortable, and tranquility (Prihati & Wirawati, 2018). Research conducted by Khasanah & Pitayanti (2021) proves that murrotal therapy is effective in reducing anxiety and stress in preoperative patients. When the patient is given murrotal Al-Qur'an therapy, the nervous system connects to the hypothalamus and then secretes endorphins, suppresses epinephrine and non-epinephrine so that it can reduce blood pressure, pulse rate, slow breathing, and slow blood flow to the brain so that anxiety decreases. This is in line with research conducted by Istiroha, (2018) and Prihati & Wirawati, (2018) which showed that there was a decrease in pain levels during treatment of diabetic ulcers after murottal therapy. so it can be concluded that this murottal therapy technique is able to reduce pain which initially experienced a moderate pain scale (4-6) and became mild (1-3). Murottal therapy technique is able to reduce the level of pain which initially experienced moderate pain scale (4-6) and became mild (1-3).

The results of this study indicate that respondent I was given murrottal therapy with a pain scale of 6 (moderate pain) before being given murrottal therapy. On day 3 there was a decrease in pain scale 3 (mild pain). Respondent II before being given murottal therapy with a pain scale of 5 (moderate pain). On day 3 there was a decrease in pain scale 2 (mild pain).

CONCLUSION AND SUGGESTION

The murottal therapy technique is able to reduce pain levels, which initially experienced a moderate pain scale (4-6) and became mild (1-3). For future researchers to be able to develop research on non-pharmacological techniques with other combinations to reduce pain in diabetic ulcer patients. For further researchers to be able to develop research on non-pharmacological techniques with other combinations to reduce pain in diabetic ulcer patients.

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