

Section: General Nursing

Implementation of murattal therapy and aromatherapy to reduce anxiety in patient undergoing hemodialysis

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Abstract

Chronic Kidney Disease (CKD) is a progressive physiological disorder that exerts a profound impact on both physical and psychological well-being. In Indonesia, the prevalence of CKD continues to rise, with West Java and Central Java reporting the highest number of cases. While hemodialysis serves as a vital renal replacement therapy, it frequently triggers significant side effects, most notably high levels of anxiety. If left unmanaged, this anxiety can severely diminish a patient's quality of life and hinder their adaptation to long-term treatment. This case study analyzes the application of a combined intervention of Murattal therapy and Lavender aromatherapy to reduce anxiety in hemodialysis patients at Tidar Hospital, Magelang City. The methodology followed a comprehensive nursing care process, including assessment, diagnosis, planning, implementation, and evaluation of a patient presenting with clinical anxiety. Murattal therapy was utilized to provide a spiritual and psychological calming effect, while Lavender aromatherapy served to induce physical relaxation through the stimulation of the central nervous system. Following the implementation of this dual-modality approach, the patient's anxiety levels showed a significant decrease. The results suggest that the combination of these two complementary therapies not only alleviates psychological distress but also enhances overall comfort during the hemodialysis procedure. By promoting emotional well-being, this integrated approach contributes directly to an improved quality of life. Consequently, the combination of Murattal therapy and aromatherapy is highly recommended as a non-pharmacological, complementary intervention to support the adaptation process and mental health of patients undergoing regular hemodialysis.

Keywords: Anxiety, aromatherapy, hemodialysis, murattal therapy, nursing care

Introduction

Chronic kidney disease (CKD) is a progressive disorder of the renal system characterized by a decline in kidney function and imbalances in body fluid and electrolyte homeostasis (Dame et al., 2022). This condition leads to various physiological effects, including fluid overload, anaemia, hypertension, and respiratory complications, as well as psychological impacts such as anxiety, sleep disturbances, and depression (Kevin & Wihardja, 2022). According to the World Health Organization (WHO) data from 2019, the global prevalence of CKD is estimated at 15% of the population (Aditama et al., 2023), causing approximately 1.2 million deaths. In Indonesia, hundreds of thousands of individuals suffer from CKD, with a growing number of patients undergoing haemodialysis, including those treated at RSUD Tidar. Haemodialysis is the primary therapeutic intervention aimed at reducing the risk of further kidney damage by removing metabolic waste and maintaining fluid and electrolyte balance (Irawati et al., 2023). Nonetheless, this procedure is often accompanied by side effects such as hypotension, dizziness, nausea, muscle cramps, pruritus, anemia, and fatigue, which can exacerbate patient anxiety. Additional contributing factors to anxiety include the regularity of treatment sessions, medication adherence, and uncertainty about health outcomes (Dame et al., 2022).

Anxiety is a response to perceived threats that have not yet occurred and, if left unaddressed, may progress to serious psychological disorders, including depression (Rismawan et al., 2019). Therefore, implementing effective interventions to reduce anxiety in haemodialysis patients is essential. Relaxation and distraction therapies have proven effective in this context, including the use of Quranic murattal therapy, which soothes the mind by listening to or reciting sacred verses, thereby diverting the patient's attention away from their illness (Yudha et al., 2021). Aromatherapy is an adjunctive method employing essential oils derived from plants to influence mood and patient well-being. It facilitates physical relaxation, enhances sleep quality, alleviates pain, and reduces nausea through inhalation, massage, or compress application (Rahmanti & Haksara, 2023). Essential oils such as lavender, peppermint, and rosemary act directly on the central nervous system to induce calming and relaxing effects beneficial for haemodialysis patients (Agustin et al., 2020).

This case study focuses on the combined application of murattal and aromatherapy to alleviate anxiety in a haemodialysis patient at RSUD Tidar. The primary objective is to analyse the impact of this combined therapy on patient anxiety levels, including a detailed description of nursing care and the changes in anxiety before and after the

intervention (Ifzaakfifnie et al., 2024). The study's benefits include enhancing nurses' understanding of holistic patient care and providing alternative anxiety-reducing strategies aimed at improving patient comfort and quality of life during haemodialysis treatment.

Case Description

The nursing assessment was conducted on June 12, 2025, in the haemodialysis Unit at RSUD Tidar on a patient identified as Mrs E, a 50-year-old woman diagnosed with stage V chronic kidney disease undergoing haemodialysis twice weekly. The patient, residing in Windusari, Magelang, practices Islam and has a medical history of hypertension and chronic gastritis. During the assessment, the patient's vital signs were stable; however, she reported experiencing anxiety, difficulty sleeping, tension, and restlessness before and during haemodialysis sessions. The patient's medical history reveals routine hypertension management with regular medication adherence and follow-ups. She had her first haemodialysis session in March 2025, with vascular access already established. Mrs. E expressed significant worry and anxiety toward the haemodialysis treatment, particularly at night when sleeping difficulties were prevalent. She does not consume alcohol and rarely engages in physical exercise. The patient's anxiety level was evaluated using the Hamilton Anxiety Rating Scale (HARS), scoring 24, indicative of moderate anxiety. The nursing diagnosis established was anxiety related to concerns about treatment failure, evidenced by the patient's reports of anxiety and worry regarding haemodialysis, occasional insomnia, and observed restlessness and tension (code D.0080). The therapeutic plan focused on relaxation therapy (code I.09326) combining Quranic murattal and aromatherapy using eucalyptus oil, aiming to reduce anxiety and promote relaxation during and after haemodialysis sessions.

On June 12 and June 16, 2025, nursing interventions included providing education on murattal and aromatherapy techniques, creating a calm and comfortable environment, and assisting the patient to assume a comfortable position conducive to relaxation. The patient cooperatively inhaled eucalyptus oil and listened to Surah Ar-Rahman for approximately 20 minutes during the sessions. Positive responses were observed, including decreased anxiety, reduced muscle tension and restlessness, and increased feelings of calm and comfort. Nursing evaluation indicated that the patient was enthusiastic about continuing relaxation therapy at home, especially during night-time when sleep disturbances occurred. The patient reported reductions in anxiety and worry, accompanied by increased calmness and absence of tension and restlessness. These findings demonstrate the effectiveness of combining murattal and aromatherapy in managing anxiety among haemodialysis patients, supporting positive care outcomes and encouraging ongoing self-administered relaxation therapy.

Discussion

Based on the nursing care provided to patient Mrs. E, it was identified that she experienced anxiety related to concerns about failure, specifically worry about the hemodialysis procedure. According to the Great Indonesian Dictionary (KBBI), anxiety is described as a feeling of disappointment arising from failure in accomplishing something. Anxiety itself is a physiological response to changes experienced by the body and is commonly observed in hemodialysis patients. This feeling of anxiety typically arises from thoughts and situations perceived as threatening, even though such threats may not actually occur (Rahmanti & Haksara, 2023). This aligns with previous research indicating that hemodialysis patients frequently experience worries regarding their uncertain health condition, especially those who have undergone treatment for less than six months due to limited procedural experience (Alesandra & Cusmarih, 2024). During the adjustment process to chronic kidney disease, patients often go through stages of grieving based on Elisabeth Kübler-Ross's model: denial, anger, bargaining, depression, and ultimately acceptance (Shadrina et al., 2024). In the initial stage, many patients deny the reality of their illness and feel anger or frustration. They then enter the bargaining phase, hoping for improvement or seeking alternatives. Depression follows as patients recognize the incurable nature of their condition, impacting mental health with symptoms such as anxiety, sleep disturbances, and reduced appetite (Azira et al., 2023). Finally, acceptance allows patients to adapt to their condition and learn to manage their health despite the lifelong need for hemodialysis (Antari et al., 2023).

In planning nursing interventions, the author referred to the Indonesian Nursing Intervention Standard (SIKI). Typically, anxiety management involves interventions aimed at reducing the sources of anxiety. However, in Mrs. E's case, relaxation therapy combining murattal and aromatherapy was implemented. Murattal therapy functions not only as a distraction from anxiety but also stimulates a physiological relaxation response that calms the mind and body (Taha et al., 2023). Meanwhile, aromatherapy, using essential oils such as lavender, acts through the olfactory system to influence the limbic brain region, thereby reducing tension and inducing a significant sense of calm (Manalu, 2019). The application of murattal and aromatherapy relaxation therapies effectively alleviated the psychological burden of the hemodialysis patient, which stems not only from physical deterioration but also the rigorous treatment schedule and its impact on quality of life. Other studies have demonstrated that Quranic recitations in murattal induce calm through spiritual and acoustic resonance, while aromatherapy stimulates the central nervous system via fragrance, promoting relaxation and anxiety reduction. This combination therapy has proven effective in decreasing stress levels and enhancing patient comfort throughout hemodialysis treatment (Wijayanti et al., 2024).

In the therapy sessions, aromatherapy involved applying eucalyptus oil onto a cotton pad placed near the patient, while the patient listened to the murattal of Surah Ar-Rahman via headphones during hemodialysis. Anxiety

levels measured by the Hamilton Anxiety Rating Scale (HARS) showed a decrease from 24 (moderate anxiety) to 15 (mild anxiety) after the first therapy session, and from 22 (moderate anxiety) to 13 (mild anxiety) on the second day. These results indicate that murottal therapy provided a spiritual suggestion that soothed the soul, while aromatherapy influenced brain function balance to produce physical and mental tranquility (Agustin et al., 2020). The resulting calmness enabled the patient to think more clearly and develop effective coping strategies, leading to improved acceptance of her condition and a significant reduction in anxiety (Kuling et al., 2024).

Conclusion

Based on the nursing care provided to patient Mrs. E, it was found that she experienced moderate anxiety with a HARS score of 24. This anxiety was associated with the routine haemodialysis treatment performed twice weekly, the uncertain duration of the therapy, her relatively recent experience with the procedure (less than six months), and a history of hypertension, which contributed to concerns about potential complications. After receiving a combination of murottal and aromatherapy interventions, Mrs. E's anxiety level decreased to a HARS score of 15, indicating mild anxiety. This therapy was proven effective in promoting the patient's sense of calmness and comfort. The reduction in anxiety demonstrates the success of this combined therapeutic approach in achieving holistic and optimal care outcomes for the patient.

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