



LITERATURE REVIEW: THE POSITIVE IMPACT OF MUROTTAL AL-QUR'AN THERAPY ON ANXIETY IN HEMODIALYSIS PATIENTS

Zamsiah Martiasih*, Dwi Retno Sulistyaningsih, Suyanto, Erna Melastuti

Faculty of Nursing, Universitas Islam Sultan Agung, Jl. Kaligawe Raya No. Km.4, Terboyo Kulon, Kec. Genuk, Semarang, Central Java 50112, Indonesia

*zmartiasih@gmail.com

ABSTRACT

Hemodialysis patients often experience anxiety that impacts quality of life and requires effective intervention. Murottal therapy has the potential to be an alternative to reduce anxiety, can be recommended as part of holistic care that is easy to apply and has minimal side effects for hemodialysis patients. Objectives: This literature review aims to evaluate the positive impact of Qur'anic murottal therapy on anxiety in hemodialysis patients. Methods: This study used a literature study of journal articles. Articles were searched through Google Scholar, PubMed, ResearchGate, and Semantic Scholar with the keywords "Hemodialysis", "Anxiety", and "Murottal Al-Qur'an" using the PCC approach. The PRISMA flowchart details the article selection process: initial identification of 462 articles, elimination of 203 duplications, exclusion of 185 articles based on irrelevant titles and abstracts, leaving 18 articles. 8 articles were again excluded after full text assessment as they did not meet the inclusion criteria. The selection process resulted in 10 final articles that met the inclusion criteria: national and international journal articles in Indonesian and English, published in 2019-2024, free full text available, and discussing murottal therapy for hemodialysis patient anxiety. Results: Out of hundreds of articles, ten articles showed consistent results that Qur'anic murottal therapy is effective in reducing the anxiety level of hemodialysis patients. Conclusion: Based on the literature analysis, Qur'anic murottal shows a positive impact as an effective therapy in overcoming anxiety in hemodialysis patients.

Keywords: anxiety; hemodialysis; murottal Al-Qur'an

How to cite (in APA style)

Martiasih, Z., Sulistyaningsih, D. R., Suyanto, S., & Melastuti, E. (2025). Literature Review: The Positive Impact of Murottal Al-Qur'an Therapy on Anxiety in Hemodialysis Patients. *Indonesian Journal of Global Health Research*, 7(1), 1031-1038. <https://doi.org/10.37287/ijghr.v7i1.5485>.

INTRODUCTION

Hemodialysis patients often experience anxiety due to the repetitive treatment process and lifestyle changes. Pharmacological approaches to manage anxiety carry the risk of side effects, especially in patients with renal impairment. Non-pharmacological therapies offer alternative solutions, but their effectiveness can vary (Nagy et al., 2023). This anxiety, if not properly addressed, can significantly reduce patients' quality of life and affect adherence to treatment (Hapsari et al. 2023). In the hemodialysis ward, common interventions to address anxiety include brief counseling, simple relaxation techniques (such as deep breathing), and providing clear information about procedures. However, the effectiveness of these interventions is often limited and not always able to optimally relieve patient anxiety, especially in severe or chronic anxiety (Yuniartika et al. 2022). Pharmacological approaches to manage anxiety are available, but they carry the risk of side effects, especially in patients with renal impairment whose organ function is already declining. Therefore, non-pharmacological therapies offer a safer alternative solution, but their effectiveness may vary and require further exploration to find the most appropriate and effective method. This situation indicates the urgency to seek and develop more effective and accessible non-pharmacological interventions for hemodialysis patients (Livayana Mawardi et al. 2021).

Murotal Quran, a method of listening to tartil recitation of the Quran, has been shown to be effective in reducing anxiety through its relaxing effects and stimulation of the parasympathetic nervous system. Besides being practical, it does not cause side effects and provides spiritual benefits, making it an excellent choice for hemodialysis patients with religious backgrounds. With these advantages, Quranic murotal is a potential holistic approach in reducing anxiety in hemodialysis patients (Agustiyowati et al., 2022). According to World Health Organization (WHO) data in 2022, the number of patients undergoing hemodialysis therapy globally reached around 3 million people. According to a report from the Asian Pacific Society of Nephrology in 2022, it is estimated that more than 1.5 million patients in the Asian region are undergoing hemodialysis therapy. In Indonesia, data from the Ministry of Health of the Republic of Indonesia recorded around 40,000 patients undergoing hemodialysis therapy in 2022. However, according to a report from the Indonesian Nephrology Association (PERNEFRI), the number of hemodialysis patients in Indonesia exceeds 80,000 people. Indonesia ranks third in Southeast Asia in the number of hemodialysis patients, after the Philippines and Thailand, showing a significant trend in kidney disease recovery. According to Indonesia Renal Registry (IRR) data, in 2024, hemodialysis therapy will remain the main choice for patients with chronic renal failure, reaching 89.7%.

METHOD

This research used a literature study of national and international articles published between 2019-2024, in Indonesian and English, and available free full text. Searches were conducted in Google Scholar, PubMed, ResearchGate, and Semantic Scholar with the keywords “Hemodialysis,” “Anxiety,” and “Murottal Al-Qur'an” using the PCC (Population, Concept, Context) approach. From a total of 462 identified articles, the analysis process using the PRISMA method resulted in 10 articles that met the inclusion criteria and were analyzed in the study. Exclusion criteria included books, unpublished full text, year of publication before 2019, and languages other than Indonesian and English. The researcher used the Population, Concept, Context (PCC) framework as a foundation to limit the scope of the review.

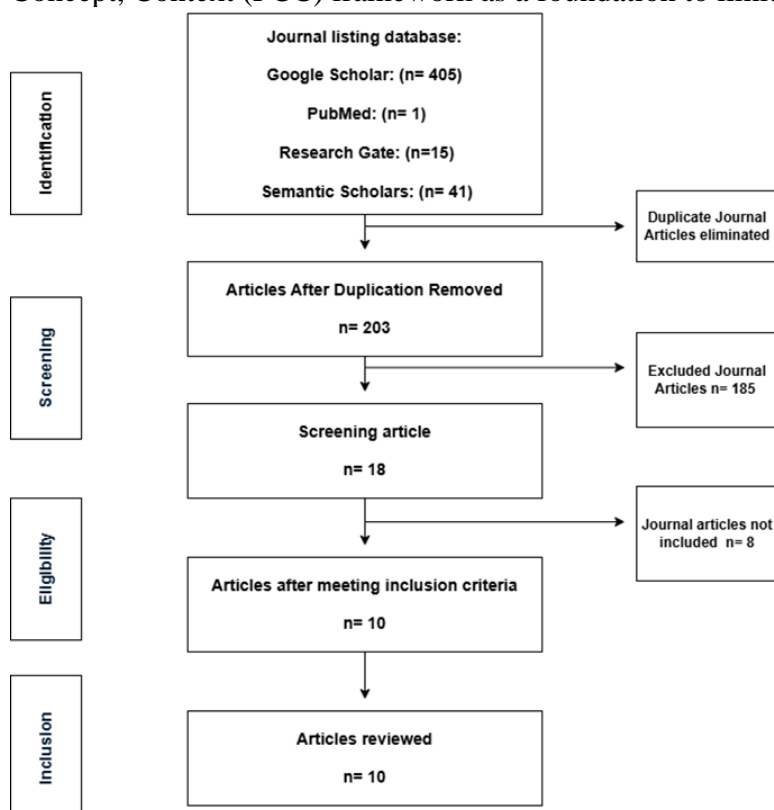


Table 1.
Research keywords on PCC

PCC	Keywords
P	Hemodialysis
C	Murottal Quran
C	Anxiety

Databases used: Google Scholar, PubMed, ResearchGate, and Semantic Scholar . Keywords: Murottal Qur'an", "anxiety", "hemodialysis.

RESULT

The systematic process of selecting articles for a literature review begins with the identification stage, where article searches were conducted in four journal databases: Google Scholar (405 articles), PubMed (1 article), ResearchGate (15 articles), and Semantic Scholar (41 articles), totaling 462 articles. Next, in the filtering stage, duplicated articles were removed, leaving 203 articles. Of these, 185 articles were excluded based on title and abstract review as they were not relevant to the research topic. The eligibility stage then assessed the remaining 18 articles based on the predetermined inclusion criteria. As a result, 8 articles were again excluded because they did not meet these criteria. Finally, the inclusion stage determined 10 articles that met all criteria and were included in the literature review. The systematic process of selecting articles for a literature review begins with the identification stage, where article searches were conducted in four journal databases: Google Scholar (405 articles), PubMed (1 article), ResearchGate (15 articles), and Semantic Scholar (41 articles), totaling 462 articles. Next, in the filtering stage, duplicated articles were removed, leaving 203 articles. Of these, 185 articles were excluded based on title and abstract review as they were not relevant to the research topic. The eligibility stage then assessed the remaining 18 articles based on the predetermined inclusion criteria. As a result, 8 articles were again excluded because they did not meet these criteria. Finally, the inclusion stage determined 10 articles that met all criteria and were included in the literature review.

Table 1.
Data extraction

Title	Author/Year	Research Objectives	Type of Research	Population/Sample	Research Results
The Effectiveness of Listening to Murottal and Prayer on Reducing Anxiety in Hemodialysis Patients at RSUD Wates	Galih Noor Alivian, Iwan Purnawan, Danang Setiyono (2019)	Knowing the difference between murottal and prayer therapy to reduce anxiety scores in hemodialysis patients	Quasy experiment with pretest-posttest design with control.	30 respondents; 15 prayer group and 15 murottal group according to inclusion and exclusion criteria.	There was a significant difference between anxiety scores before and after murottal and prayer therapy (p < 0.001). However, there was no significant difference between the two groups (p = 0.571).
Anxiety Case Report with Murottal Alqur'an Approach in Woman Who Got Hemodialysis in Universitas Sumatera Utara Hospital, Medan	Agusmita, Elmeida Effendy (2019)	Knowing the effect of Murottal Al-Qur'an therapy on the anxiety level of hemodialysis patients.	Case study.	A 48-year-old female patient undergoing hemodialysis	There is an effect of Al-Qur'an Murottal therapy on the anxiety level of hemodialysis patients

Title	Author/Year	Research Objectives	Type of Research	Population/Sample	Research Results
The Effect of Listening to the Holy Qur'an and a Back Massage on Fatigue and Quality of Life for Participants Undergoing Hemodialysis: A Quasi-Experimental Study	Komaridah A, Rochmawati E	This study examined the effect of combined Qur'anic listening and back massage on fatigue and quality of life in participants undergoing hemodialysis in Indonesia.	Quasi experiment pretest-posttest without control group.	40 chronic renal failure patients undergoing hemodialysis.	Fatigue scores in the intervention group were significantly lower than those in the control group ($p < 0.05$), suggesting that the combination of Qur'anic listening and back massage is effective in reducing fatigue and improving quality of life.
The Effectiveness of Murottal Al-Qur'an Therapy by Surah Ar-Rahman toward Anxiety of Chronic Kidney Disease (CKD) which is being Hemodialysis	Byba Melda Suhita, Yulianita Arini, Sri Kardjati (2019)	Analyzing the effectiveness of Murottal Al-Qur'an therapy with Surah Ar-Rahman on the anxiety of Chronic Kidney Failure (CKD) patients undergoing hemodialysis.	Quasi Experiment al with pretest-posttest design using a control group.	58 respondents who underwent hemodialysis at Gambiran Kediri Hospital.	There was a decrease in the average anxiety level from 32.7 (pre-test) to 23.6 (post-test) in the group that received Murottal therapy, with a p value = 0.000 which indicates significance.
The Application of Qur'anic Murottal Therapy to the Level of Anxiety of Renal Failure Patients Undergoing Hemodialysis in Metro City	Tendy Arma Yudha, Ludiana, Senja Atika Sari HS (2021)	Applying Qur'anic Murottal therapy to reduce the level of anxiety in patients with kidney failure undergoing hemodialysis.	Case study.	1 renal failure patient who experienced anxiety due to hemodialysis.	After the application of Qur'anic Murottal therapy for 3 days, there was a decrease in anxiety levels from a score of 26 (moderate) to a score of 15 (mild).
Application of Qur'anic Murottal Therapy on Anxiety in Patients Undergoing Hemodialysis	Kesyia Ayuni Asnidatama, Ida Nurjayanti, Agus Rismanto (2024)	Applying Qur'anic Murottal therapy to reduce anxiety levels in patients undergoing hemodialysis.	Case study (case report).	Two patients diagnosed with chronic renal failure undergoing hemodialysis.	The anxiety level of respondents before the intervention was in the moderate category (24 and 23), which then dropped to the mild category (14) after the application of therapy.
The Effect of Murottal Al-Quran Therapy on Anxiety Level of Chronic Kidney Disease Patients Undergoing Hemodialysis	Tri Hapsari RA, Diana Ros Endah, Tri Antika Rizki Kusuma Putri, (2022)	Determine the effect of Qur'anic murottal therapy on anxiety levels in chronic kidney disease patients undergoing hemodialysis.	Quantitative research with a quasi-experimental design, using a one group pretest-posttest model.	34 respondents with chronic kidney disease undergoing hemodialysis.	After the application of murottal therapy, there was a significant decrease in anxiety levels, with an average pre-test value of 55.03 and post-test of 41.44 (p -value = 0.000).
Effectiveness of Murottal Al-Qur'an Therapy	Hana Febrianti, Dwi Pantja	Knowing the effect of Murottal Al-Qur'an	Quantitative research with a pre-	20 hemodialysis patients taken by purposive	There is a significant effect of Murottal Al-Qur'an therapy on

Title	Author/Year	Research Objectives	Type of Research	Population/Sample	Research Results
on Anxiety Levels of Hemodialysis Patients at Hospital X Tangerang	Wibowo, Rembyung Hartati, (2024)	therapy on the anxiety level of hemodialysis patients at X Tangerang Hospital.	experiment al design approach.	sampling technique.	reducing anxiety levels patients, with a p-value of 0.000 (<0.05).
The Effect of Murotal Al-Quran Distraction Therapy on Reducing Anxiety Levels in CKD Patients Undergoing Hemodialysis at Toto Kabila Hospital	Yulinda Ibrahim, 2024	Knowing the effect of Murotal Al-Qur'an distraction therapy on reducing the level of anxiety in CKD patients undergoing hemodialysis.	Quantitative research design with Quasy Experiment al approach	Sample: 15 respondents, consisting of intervention group and control group	There was a significant decrease in the level of anxiety in the treatment group after being given Murotal Al-Qur'an therapy, with a p-value <0.05.
Application of Deep Breath Relaxation and Al-Qur'an Murottal Therapy on Anxiety in Chronic Kidney Failure Patients in the Hemodialysis Room at Jend. Ahmad Yani Metro Hospital	Anis Ayu Wijayanti, Uswatun Hasanah, Anik Inayati (2024)	Reducing the anxiety level of chronic renal failure patients undergoing hemodialysis therapy using deep breath relaxation therapy and Qur'anic murottal therapy.	Case study research design.	Two patients	After implementation, subject I's anxiety score decreased from 24 (moderate) to 14 (mild), and subject II from 27 (moderate) to 14 (mild).

DISCUSSION

Anxiety is a natural human response to threats, but can become maladaptive if it persists, characterized by tension and worry about threats (Saragih Nurlela Petra et al., 2022). Anxiety in hemodialysis patients is often triggered by long-term medication, poor health, unexpected health changes, dietary changes, and pain during dialysis. Symptoms include feelings of anxiety, anger, sadness, trembling, weakness, restlessness, repeating questions, worry, looking hopeless, and confusion and anxiety about how long they will be on hemodialysis (Gerogianni et al. 2019). Murotal Qur'an as a non-pharmacological intervention approach offers a significant positive impact in anxiety management without the side effects of medication for hemodialysis patients (Ibrahim et al., 2024). By listening to the recitation of the Holy Qur'an, patients can experience a sense of calm and a reduction in anxiety associated with the medical procedure they are undergoing, proven to have a calming effect on the nervous system. Through hearing, murotal sounds induce relaxation, stimulate the production of endorphin hormones, and lower stress-related cortisol levels. In addition, the spiritual value in murotal also helps to increase a sense of calmness, self-confidence, and acceptance of the disease condition and treatment (Agustiyowati et al., 2022).

Murottal therapy has been shown to have a positive impact on mental and physical health. Mentally, murottal is effective in reducing anxiety and stress because its sound waves are dominated by delta waves that trigger relaxation, lower stress hormones, and activate endorphins (Suhita & Arini, 2019). Murottal also improves sleep quality by providing a

relaxing and calming effect, as well as strengthening spiritual awareness and a sense of surrender. In addition, the harmonious sounds of murottal can distract from fear, anxiety and tension (Alivian Galih Noor et al., 2019). From the physical side, murottal can reduce pain by increasing stimulus and relaxation that affects perception and emotions, and provides a relaxing effect on the body by reducing muscle tension (Gerogianni, Babatsikou, et al., 2019). Murottal works by providing stimulus through hearing that the brain processes, resulting in feelings of calm, relaxation and comfort. Its sound waves also influence brainwave activity in a more positive direction (Nurkhasanah Alfi et al., 2023). To provide a more comprehensive picture of the effectiveness of murottal therapy compared to other methods, it is necessary to review several aspects of comparison by considering the context. Compared to pharmacological therapy (drugs), murottal has the advantage of being a non-invasive intervention that does not cause side effects, low cost, easily accessible even for free via the internet, and can be combined with medical treatment (Gerogianni, Babatsikou, et al., 2019). However, the effects of murottal may not be as fast as drugs that act directly on the nervous system, its effectiveness varies between individuals depending on beliefs and psychological conditions, and it is less appropriate for emergency conditions that require immediate treatment (Suparman Rustam, 2021).

When compared to other non-pharmacological psychological therapies, murottal has similarities with relaxation techniques such as deep breathing and meditation in providing a calming effect (Alhawtmeh et al., 2024). The difference lies in the spiritual and religious dimension contained in murottal, which may be more meaningful to some people. As part of music therapy, murottal has an advantage because of the content of the holy verses of the Qur'an which can provide calmness and spiritual meaning for Muslims (Yuniartika et al., 2022). Unlike hypnotherapy which is more structured and involves suggestion, murottal is more passive and provides a relaxing effect through hearing. Meanwhile, counseling or psychotherapy focuses on identifying and resolving psychological problems, so murottal can serve as a complement to support the therapy process (Praptomo Agus Dodi et al., 2024). The effectiveness of this comparison is also influenced by several factors. For mild to moderate anxiety problems, murottal may be quite effective (Livayana Mawardi et al., n.d.). However, for more severe problems, a combination with other therapies or medications may be required. Individual preferences and beliefs also play an important role; for those who believe and practice Islam, murottal may have a stronger effect. Finally, availability and access are considerations, where murottal is relatively easy to access and implement, whereas other therapies may require expertise and greater cost (Alivian Galih Noor et al., 2019).

Of the ten journals analyzed, four used the Quasi-Experiment method with a Pretest-Posttest Design. Strengths: The presence of a control group allows researchers to compare the results of the intervention (murottal) with a group that did not receive the intervention. This helps control for outside factors that may affect the results, making the conclusions drawn more robust. The pretest-posttest design also makes it possible to measure changes before and after the intervention in both groups. Weaknesses: As it is a quasi-experiment, the assignment of subjects to the control and intervention groups is not randomized. This may lead to selection bias, where the control and intervention groups may differ systematically in certain characteristics that may affect the results. For example, the group that volunteered for the murottal intervention may already have a higher level of religiosity or motivation, which may affect their anxiety levels (Agustiyowati et al., 2022; Alivian Galih Noor et al., 2019; Ibrahim et al., 2024; Suhita & Arini, 2019).

One journal used the Quasi-Experimenta Pretest-Posttest Without Control Group method. Strengths: This design is relatively easy to conduct and can provide an early insight into the

effectiveness of the intervention. Weaknesses: The absence of a control group is a major weakness. It is difficult to ensure that the decrease in anxiety is due to the murottal intervention, rather than other factors such as time, placebo effect, or regression to the mean the tendency of extreme scores to approach the mean in subsequent measurements (Nurkhasanah Alfi et al., 2023). Two journals used case studies. Strengths: Case studies allow for in-depth research into specific phenomena in individuals or small groups. Can provide rich and detailed insights into the subject's experience of the murottal intervention. Weaknesses: Case studies cannot be generalized to a wider population as the sample is very small and not representative. Case studies are more exploratory in nature and cannot prove cause-and-effect relationships between interventions and outcomes (Arma YudhaTendy et al., 2021)

CONCLUSION

Based on the literature analysis conducted, Qur'anic murottal has shown positive impact as an effective therapy in overcoming anxiety in hemodialysis patients. Murottal therapy offers significant potential benefits for hemodialysis patients, especially in overcoming psychological problems such as anxiety, depression, and sleep disorders. Although its potential physiological impact still requires further research, murottal may be an effective complementary therapy to improve the quality of life of hemodialysis patients. It is important to remember that murottal therapy should be used as a complement and not a substitute for medical treatment provided by a doctor. Although the study results showed a positive impact, further research with a larger sample size and more consistent methodology is needed to strengthen these findings.

REFERENCES

- Agustiyowati, T. H. R., Endah, D. R., & Putri, T. A. R. K. (2022). The Effect of Murottal Al-Quran Therapy on Anxiety Level of Chronic Kidney Disease Patients Undergoing Hemodialysis. *Jurnal Keperawatan Komprehensif (Comprehensive Nursing Journal)*, 8(4). <https://doi.org/10.33755/jkk.v8i4.443>
- Alhawatmeh, H., Najadat, I. A., & Hweidi, I. M. (2024). Mindfulness-based intervention as a symptom management strategy in patients with end-stage renal disease: A controlled clinical trial. *International Journal of Nursing Practice*, 30(6). <https://doi.org/10.1111/ijn.13282>
- Alivian Galih Noor, Purnawan Iwan, & Setiyono Danang. (2019). Efektifitas Mendengarkan Murottal Dan Doa Terhadap Penurunan Kecemasan Pada Pasien Hemodialisis Di Rsud Wate. *Jurnal Keperawatan Sriwijaya*, 6.
- Arma YudhaTendy, Ludiana, & Sari HS Senja Atika. (2021). Penerapan Terapi Murottal Al-Qur'an Terhadap Tingkat Kecemasan Pasien Gagal Ginjal Yang Menjalani Hemodialisa Di Kota Metro . *Jurnal Cendikia Muda*, 2.
- Gerogianni, G., Babatsikou, F., Polikandrioti, M., & Grapsa, E. (2019). Management of anxiety and depression in haemodialysis patients: the role of non-pharmacological methods. *International Urology and Nephrology*, 51(1), 113–118. <https://doi.org/10.1007/s11255-018-2022-7>
- Gerogianni, G., Polikandrioti, M., Babatsikou, F., Zyga, S., Alikari, V., Vasilopoulos, G., Gerogianni, S., & Grapsa, E. (2019). Anxiety–Depression of Dialysis Patients and Their Caregivers. *Medicina*, 55(5), 168. <https://doi.org/10.3390/medicina55050168>

- Ibrahim, Y., Uyun Biahimo, N. I., Abas, J., Kedokteran dan Ilmu Kesehatan, F., & Studi Profesi Ners, P. (2024). Pengaruh Terapi Distraksi Murotal Al-Quran Terhadap Penurunan Tingkat Ansietas pada Pasien CKD yang Menjalani Hemodialisa di RSUD Toto Kabila. *Jurnal Kesehatan Dan Kedokteran*, 1(4), 152–168. <https://doi.org/10.62383/vimed.v1i4.802>
- Livayana Mawardi, M., Agusthia, M., Noer, R. M., Awal, S., & Batam, B. (n.d.). Decreased The Anxiety Scale of Hemodialysis Patients with The Autogenic Relaxation.
- Nagy, E., Tharwat, S., Elsayed, A. M., Shabaka, S. A. E.-G., & Nassar, M. K. (2023). Anxiety and depression in maintenance hemodialysis patients: prevalence and their effects on health-related quality of life. *International Urology and Nephrology*, 55(11), 2905–2914. <https://doi.org/10.1007/s11255-023-03556-7>
- Nurkhasanah Alfi, Putri Diyanah Syolihan Rinjani, & Azali Lalu M Panji. (2023). Pengaruh Penerapan Murottal Dan Dzikir Terhadap Kualitas Tidur Pasien Gagal Ginjal Kronik Yang Menjalani Hemodialisa Di Rsud Dr. Moewardi. *Journal of Nursing Care & Biomolecular*, 8.
- Praptomo Agus Dodi, Winta Mulya Virgonita I, & Pratiwi Margaretha Maria Shinta. (2024). Pendekatan Terapi Psikologi Dan Nonfarmakologi Kecemasan Dan Stres Pada Lansia : Literature Review. *Jurnal Kesehatan Tambusai*, 5.
- Saragih Nurlela Petra, Naibaho Ruisna Wati, Halawa Sri Defri, & Sianipar Theresia Ivana. (2022). Hubungan Antara Tingkat Kecemasan Dengan Lamanya Hemodialisis Pada Pasien Gagal Ginjal Kronik (Ggk) Yang Menjalani Hd. *Jurnal Penelitian Perawat Profesional*, 4.
- Suhita, B. M., & Arini, D. Y. (2019). The Effectiveness of Murottal Al-Qur'an Therapy by Surah Ar-Rahman toward Anxiety of Crhonic Kidney Disease (CKD) which is being Hemodialysis at Gambiran Hospital Kediri. *Strada Jurnal Ilmiah Kesehatan*, 8(2), 129–135. <https://doi.org/10.30994/sjik.v8i2.213>
- Suparman Rustam, J. (2021). Efektifitas Terapi Murrotal Al-Qur'an Dalam Perawatan Pasien Kritis: Integrative Review. *Ensiklopedia Sosial Review*, 3(3), 304–309. <https://doi.org/10.33559/esr.v3i3.978>
- Yuniartika, W., Fitri Karunia, F., & Nurjanah, F. (2022). Literature Review : Pengaruh Terapi Murottal Terhadap Kecemasan Pada Pasien Hemodialisa. *Artikel Penelitian Jurnal Kesehatan*, 11(2). <https://doi.org/10.37048/kesehatan.v11i2.429>.