

## Review Paper

## Therapy by Quranic Recitation for Pain Management in Hospitals: A Scoping Review



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## ABSTRACT

**Background:** Pain is a frequently encountered issue in hospitals with a high prevalence, causing detrimental effects if uncontrolled. Non-pharmacological approaches like Quranic recitation have been effective in reducing pain. However, further mapping is needed for the clinical application of this therapy in hospitals. This scoping review aims to map Quranic recitation therapy for hospital pain management.

**Methods:** The literature research was conducted on PubMed, Science Direct, Cochrane Library, Garuda, and Wiley Online Library. We searched the relevant articles written in English between 2014 and 2024. Boolean operators (“AND” and “OR”) were used to optimize the search strategy, focusing on the terms “Quran” OR “Qur’an” OR “Koran” AND “pain.” This scoping review uses the framework by Arkey and O’Malley. The article selection process was conducted using the Rayyan software program. Three individuals carried out the selection process, and the extracted data were then mapped, categorized, and summarized.

**Results:** The initial database search retrieved 250 articles. Ultimately, 10 studies met the inclusion criteria and proceeded to the next stage of extraction and analysis. The included studies consisted of 4 randomized controlled trials, 5 quasi-experimental studies, and 1 case-control study. Most participants were Muslim adults, reflecting the context of the studies conducted in Muslim-majority countries. One study included neonates, highlighting the potential physiological effects of Quranic recitation beyond religious affiliation. The findings show that Quranic recitation therapy notably decreases pain perceptions, promotes relaxation, soothes the mind, and enhances mental health. It also boosts patient comfort, lowers heart rate, improves oxygen saturation, and alleviates anxiety. The numeric rating scale is commonly used to measure pain, with Surah Ar-Rahman being the most frequently used chapter in the therapy.

**Conclusion:** Given the benefits of Quranic recitation in pain management, it is hoped that the provision of Quranic recitation therapy can be integrated into hospital pain management protocols as a routinely used complementary therapy. Future research should focus on establishing standardized methodologies for Quranic recitation therapy, including the duration of sessions, specific Surahs used, and uniform outcome measures. Additionally, exploring the therapy’s efficacy in non-Muslim populations would provide valuable insights into its universal applicability beyond cultural and religious contexts.

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## Highlights

- The prevalence of pain sensations in hospitals is high and significantly affects patients.
- Uncontrolled pain has adverse physical, psychological, and economic effects.
- Quranic recitation is effective in reducing pain and improving patients' mental health.
- Surah Ar-Rahman is the primary choice in Quranic recitation therapy for pain management.
- The integration of Quranic recitation therapy into hospital pain management protocols is recommended.

## Plain Language Summary

Pain is a common issue in hospitals. Besides medications, people seek other methods to manage pain. This scoping review elaborates on the effectiveness of listening to Quranic recitation on pain management in hospital settings. The results indicate that listening to the Quran can reduce pain in many patients. Patients reported feeling more relaxed and comfortable. Surah Ar-Rahman is the most frequently used in this therapy. This method has physical effects, such as changes in brain waves and increasing the impact of natural pain-relieving substances. This method is worth mentioning because it offers a cost-effective and straightforward way to manage pain, especially for Muslims.

## Introduction

**P**ain is a common medical symptom that poses significant challenges for hospitalized patients. According to a survey conducted in hospitals in Canada, approximately 70.4% of inpatients experience pain (Jabusch et al., 2015). In China, the rate is 63.36%, with 68% experiencing acute pain, 26% chronic pain, and 16% neuropathic pain (Xiao et al., 2018). Italy reports an even higher prevalence of 80.8%, both for acute and chronic pain, which tends to increase with age (Mitello et al., 2022). Other countries, such as Sweden and Spain, report high numbers, with 62% and 52.9%, respectively (Peter-son & Schaller, 2022; Becerra-Bolaños et al., 2023). A survey at a children's hospital in Uruguay found a pain prevalence of 51.3% (Walther-Larsen et al., 2017). These data underscore that pain is a highly significant and widespread issue across various healthcare facilities worldwide, with a high incidence rate.

Uncontrolled pain can lead to detrimental physiological and psychological effects. Physically, pain can reduce physical activity, weaken the immune system, and disrupt sleep patterns (Peterson & Schaller, 2022). Psychologically, chronic pain is often associated with anxiety, depression, and suicidal thoughts (Mullins et al., 2023). Uncontrolled acute postoperative pain results in increased morbidity, functional impairment, delayed recovery, prolonged opioid use, and higher healthcare

costs (Gan, 2017). Pain significantly impacts inpatients' physical and mental condition, reducing the quality of life and increasing economic burdens (Das et al., 2020). Therefore, effective pain management is crucial to control pain successfully.

Many non-pharmacological approaches to pain management are commonly employed in hospitals, such as massage, acupuncture, and temperature modulation. However, these treatments primarily focus on physical care. Effective pain management should consider the physical, psychological, emotional, cultural, and spiritual dimensions (Sjattar et al., 2024). Listening to the Quranic recitation is one form of therapy that can provide relaxation and tranquility (Al-Galal & Fakhri Taha Alshaiikhli, 2017) and enhance spirituality (Suwardi & Rahayu, 2019). Reciting Quranic verses and listening to the Quran has been found effective in reducing anxiety, depression, stress, pain, and fear among Muslim women during pregnancy (Si-monovich et al., 2022). Reciting the Quran has been shown to stimulate alpha brain waves associated with endorphin release, increase stress thresholds, create a sense of relaxation, and reduce negative emotions, which can lower postoperative pain levels (Eid Aburuz et al., 2023). This finding aligns with research by Keivan et al. (2019), demonstrating that listening to Quranic recitation effectively reduces pain during burn treatment. Additionally, listening to the Quran is more effective

in reducing headaches in hypertensive patients than listening to Mozart music (WirakhmiTin et al., 2018).

Although numerous studies have investigated the use of Quranic recitation therapy for pain management, further mapping of the procedures for using Quranic recitation therapy in clinical settings is necessary. This need arises due to the high prevalence of pain in hospitals and the adverse effects of uncontrolled pain. Therefore, we conducted a scoping review to map the use of Quranic recitation therapy for hospital pain management.

### Materials and Methods

The preferred reporting items for systematic reviews and meta-analyses extension for Scoping reviews (PRISMA-SCR) were utilized to optimize reporting and increase fidelity (Tricco et al., 2018). The review followed the guidelines of scoping review frameworks (Arksey & O’Malley, 2005), using the five stages of scoping reviews:

#### Stage 1. Identify research questions

This scoping review elaborates on the effectiveness of listening to Quranic recitation on pain management in a hospital setting.

#### Stage 2. Identify relevant studies and search terms

Five databases were used for the literature search: PubMed, Willey Online Library, Cochrane, Science Direct, and Garuda, plus a secondary search from 2014 to June 2024. This time frame was chosen to ensure relevance to current clinical practices and provide a comprehensive 10-year overview of the literature on

Quranic recitation therapy for pain management. Boolean operators (“AND” and “OR”) were used to optimize the search strategy, focusing on the terms “Quran” OR “Qur’an” OR “Koran” AND “pain.” Our initial search was based on title, abstract, and content to identify terms and keywords (Table 1).

Table 2 shows a sample search strategy used in one of the databases, along with the number of hits for each keyword or Boolean combination.

#### Stage 3: Literature selection

This scoping review uses the population, exposure, outcome (PEO) framework. The inclusion criteria in this scoping review are shown in Table 3.

This review excluded literature reviews, study protocols, and non-peer-reviewed articles. Most included studies focused on Muslim populations, as Quranic recitation is inherently tied to Islamic cultural and spiritual practices. However, one study involving neonates (Marofi & Nikobakht, 2018) was included. While neonates are not yet oriented to religion, the study was considered relevant due to its focus on the physiological effects of Quranic recitation, which are not restricted by religious affiliation.

After obtaining the articles, a screening process based on inclusion and exclusion criteria was carried out. A total of 250 relevant abstracts were inserted into the Men-deley reference manager. After removing duplicate articles, 237 articles remained. Next, the titles were screened for relevance, resulting in 31 articles for further screening. Of these, 13 articles were categorized as directly related to the review question, followed by full article reading. Then, we removed articles that were

Table 1. Number of articles retrieved from databases

No.	Database	Keyword	Resulted Articles	After Deduplication
1	PubMed	((((((Quran[Title/Abstract]) OR (Quranic[Title/Abstract])) OR (Qur’an[Title/Abstract])) OR (Koran[Title/Abstract])) OR (Quran recitation[Title/Abstract])) OR (Holy Quran[Title/Abstract])) AND (pain[Title/Abstract])	18	16
2	Science Direct	Quran or Qur’an and pain	44	41
3	Cochran Library	Quran or Quranic or Qur’an or Quran recitation or Holy Quran or Koran and pain	175	169
4	Willey Online Library	Quran or Qur’an and pain	4	3
5	Garuda	Quran and pain	6	5
6	Secondary Search		3	3
Total			250	208

**Table 2.** Sample search strategy in PubMed

No.	Keyword	Number of Hits
1	Quran[Title/Abstract]	318
2	Quranic[Title/Abstract]	90
3	Qur'an[Title/Abstract]	136
4	Koran[Title/Abstract]	111
5	Quran recitation[Title/Abstract]	21
6	Holy Quran[Title/Abstract]	88
7	Pain[Title/Abstract]	847177

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**Table 3.** Eligibility criteria for articles

PEO	Inclusion	Justification
Population	Patients complaining of pain	Studies focused on pain management interventions were prioritized. All studies included patients with pain as a primary concern.
Exposure	Listening to Quranic verses	Quranic recitation was the intervention of interest, and this exposure is linked to the potential alleviation of pain.
Outcome	Any signs of physical or mental pain relief	Studies measuring physical (e.g. pain scales) and mental (e.g. anxiety, stress) relief were considered relevant.
Time Frame	Studies published from 2014 to 2024	Ten years were chosen to ensure the inclusion of recent studies relevant to current clinical practices.
Language	Articles published in English	Only studies published in English were included to ensure global accessibility and understanding.

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not relevant. This selection stage resulted in 10 research studies being included and then analyzed (Figure 1).

### Reliability of study extraction

The article selection process was conducted using the Rayyan software program (Ouzzani et al., 2016) to facilitate systematic screening and manage inclusion criteria efficiently. The selection involved 3 rounds: initial screening, full-text review, and final inclusion. Three individuals (Sunarti Maming, Rosyidah Arafat and Saldy Yusuf) carried out the selection process. Subsequently, we thoroughly reviewed each article, including its title, abstract, and full text, employing the Jonna Briggs Institute (JBI) manual method. Any discrepancies in study selection were resolved through discussion. Of the 13 articles selected, 10 met our review criteria.

### Stage 4: Literature mapping

Data was extracted by entering important information; the variables measured can be seen in (Table 4).

### Stage 5: Organize, summarize, and report results

Focusing on the analysis of Quranic recitation interventions in pain management, several pieces of literature formed the basis for data collection. The identification of essential themes was carried out when the analysis results were reported.

## Results

### Characteristics of the studies

Ten included studies consist of various research designs: 4 RCTs, 1 prospective study, and 5 quasi-experimental studies. Among the 10 reviewed articles, one is from Jordan (Eid Aburuz et al., 2023), one from Iran (Marofi & Nikobakht, 2018), one from Turkey (Kocak et al., 2022), 2 from Pakistan (Maarof et al., 2023; Pervaiz et al., 2024), one from Arab Saudi (Ahmed et al., 2022) and four from Indonesia (Kurniyawan et al., 2018; Hanafi et al., 2019; Priyanto et al., 2019; Fadholi & Mustofa, 2020). The sample sizes varied from 12 (Hanafi et al., 2019) to 132 (Eid Aburuz et al., 2023). Most studies were conducted in Muslim-majority coun-

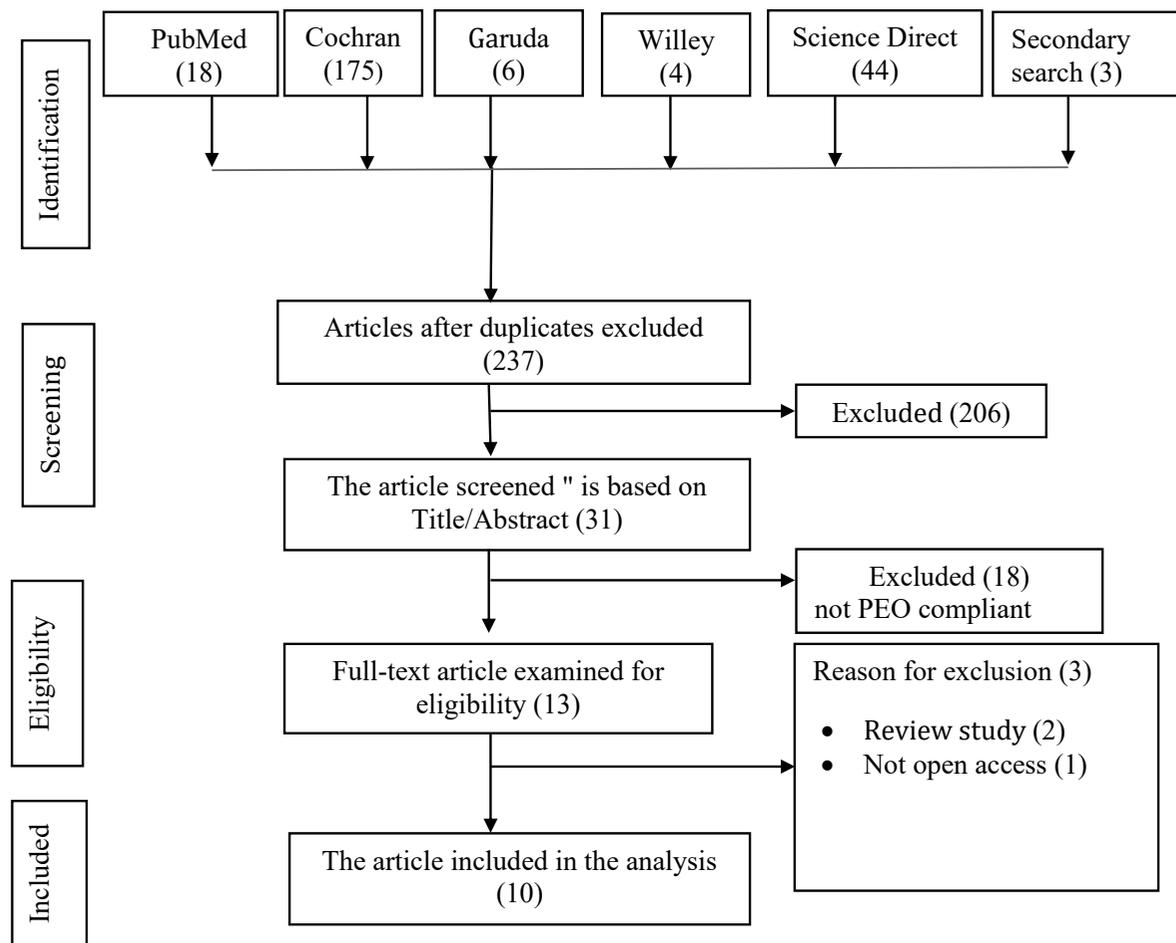


Figure 1. PRISMA Sc-R flow diagram (adapted from [Tricco et al., 2018](#))

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tries, suggesting that a significant proportion of participants were likely Muslim adults. However, one study ([Marofi & Nikobakht, 2018](#)) included neonates.

### Finding related Quranic recitation

Based on our findings, we categorized the outcomes of Quranic recitation therapy for pain ([Table 5](#)).

### Pain and its measurement

The numerical pain scale (NRS) is the most widely used tool for measuring pain ([Kurniyawan et al., 2018](#); [Priyanto et al., 2019](#); [Fadholi & Mustofa, 2020](#); [Ahmed et al., 2022](#); [Eid Aburuz et al., 2023](#); [Pervaiz et al., 2024](#)). Other measurement tools include VAS ([Hanafi et al., 2019](#); [Kocak et al., 2022](#)) and the Wong-Baker Faces pain scale ([Maarof et al., 2023](#)). For neonates, pain measurement uses the neonatal infant pain scale ([Marofi & Nikobakht, 2018](#)), while the face pain rating scale and comfort scale measure pain in unconscious patients ([Hanafi et al., 2019](#)).

The procedure and technique for administering Quranic recitation therapy vary, including the choice of surahs and the duration of treatment. Surah Ar-Rahman is the most frequently used Surah ([Marofi et al., 2018](#); [Hanafi et al., 2019](#); [Priyanto et al., 2019](#); [Fadholi & Mustofa, 2020](#); [Eid Aburuz et al., 2023](#)). Other recited surahs include Surah Al Insyirah, which is recited for pregnant women about to give birth ([Kocak et al., 2022](#)), Ayatul Kursi for hematological cancer patients ([Ahmed et al., 2022](#)), Surah Yaa-Seen for patients in the recovery period post-anesthesia ([Maarof et al., 2023](#)) and Surah Al Fatiha recited during post-open reduction and internal fixation (ORIF) wound care ([Kurniyawan et al., 2018](#)). Procedures for usage include using headphones connected to an iPad ([Eid Aburuz et al., 2023](#)) and MP3 players ([Marofi & Nikobakht, 2018](#)). The duration of the Quranic recitation provision ranges from 10 minutes ([Kurniyawan et al., 2018](#); [Eid Aburuz et al., 2023](#)) to 35 minutes ([Hanafi et al., 2019](#)).

Table 4. Article characteristics

No.	Author, Year, Country	Purpose	Design	Participants	Intervention Model	Media	Measurement	Results
1	Eid Aburuz et al. (2023), Jordan	To determine the effect of listening to Al-Qur'an recitation on post-CABG pain	Randomized controlled trial	One hundred and thirty-two Muslim adult patients from four hospitals in Amman (66 control, 66 intervention)	The intervention group listened to Al-Qur'an recitation for 10 minutes twice daily at 10 AM and 2 PM for two days. The control group received the usual care.	Surah Ar-Rahman by Qari Abdul Basit	Pain was assessed at baseline and on the fourth-day post-operation using a NRS from 0 to 10.	Paired t-test analysis showed a significant reduction in pain levels ( $P < 0.001$ ) for the intervention group.
2	Marofi & Nikobakht (2018), Iran	To evaluate the effect of Al-Qur'an sound on pain caused by heel blood sampling in neonates	A clinical trial study	72 full-term neonates were admitted to the neonatal intensive care unit of Al-Zahra Hospital in Isfahan (36 control, 36 intervention)	All groups were breastfed half an hour before the intervention. The intervention group listened to the Al-Qur'an via MP3, played one meter from the bedside, starting three minutes before the procedure, during blood sampling, and until three minutes after blood sampling	Surah Ar-Rahman by Abd-ALBaset at a sound intensity of 65 dB	Pain was assessed at: Three minutes before. During, Three minutes after blood sampling. Using the neonatal infant pain scale (NIPS) ranging from 0-7	Independent t-test results showed: There was no difference in pain between the two groups 3 minutes before blood sampling ( $P=0.34$ ). No difference in pain during blood sampling ( $P=0.09$ ). Significantly lower pain intensity in the Al-Qur'an group three minutes after blood sampling compared to the control group ( $P < 0.05$ )
3	Kurniyawan et al. (2018), Indonesia	To compare the effectiveness of acupressure intervention, Quranic recitation, and a combination of acupressure and Quranic recitation on pain intensity during wound care in post-ORIF clients	A quasi-experimental pre-test-post-test approach	Twenty-eight inpatient post-ORIF patients at Dr. Soebandi Hospital divided into four groups, each consisting of 7 people	Intervention groups consisted of: Acupressure Quranic recitation Combination of acupressure and Quranic recitation The control group did not receive pain management.	Surah al-Fatihah	Pain was measured before and after wound care using the NRS.	Acupressure, Quranic recitation, and the combination of acupressure and Quranic recitation significantly reduced pain intensity during wound care in post-ORIF patients ( $P < 0.05$ ), while the control group had a $P > 0.05$ . There was no significant difference in the severity of pain reduction in the three intervention groups.
4	Priyanto et al. (2019), Indonesia	To determine the effectiveness of psycho-religious Al-Qur'an recitation intervention on the pain level of bone cancer patients	A quasi-experimental study with pre-test-post-test control group design	Thirty-six bone cancer patients at Semarang Regency General Hospital	The intervention group listened to Al-Qur'an recitation for 20 minutes. The control group did not receive Quranic recitation.	Surah Ar-Rahman	Pain was measured using the NRS during pre- and post-intervention	The psycho-religious Al-Qur'an recitation intervention effectively reduced pain levels in bone cancer patients ( $P=0.001$ ).

No.	Author, Year, Country	Purpose	Design	Participants	Intervention Model	Media	Measurement	Results
5	Pervaiz et al. (2024), Pakistan	To evaluate the effect of listening to Surah Ar-Rahman on pain levels in ICU patients with pain scores above five on the visual analog scale (VAS)	Prospective case-control study	One hundred adult patients from the ICU at Bahria International Hospital, with 50 patients in the intervention group and 50 in the control group	The intervention group listened to Quranic recitation for 20 minutes twice a day at 9 AM and 4 PM for four days and received standard hospital pain medication, paracetamol 1000 mg, three times a day. The control group received standard care without additional non-pharmacological pain interventions.	Surah Ar-Rahman (by Qari Abdulbasit Abdulsamad)	Pain levels were measured using a numerical scale (0-10) at baseline and on the fourth day.	Paired t-test showed a significant reduction in pain scores in the intervention group (P=0.03).
6	Kocak et al. (2022), Turkey	To identify whether listening to the recitation of Surah Al-Inshirah during labor affects the pain levels of pregnant women	Randomized controlled trial	One hundred and twenty-six pregnant Muslim women were admitted for delivery at a hospital in the Central Anatolia Region of Turkey, with 60 in the intervention group and 66 in the control group.	The intervention group listened to the recitation of Surah Al-Inshirah for 5 minutes every hour, with the recitation played continuously from 4-cm to 10-cm cervical dilation. The control group received the usual care.	Surah Al-Inshirah	Pain levels were measured using the visual analog scale. Pre-intervention pain was measured at 4-cm cervical dilation, and post-intervention pain was measured at 9-cm cervical dilation during labor.	The intervention group had significantly lower pain levels than the control group (P<0.05).
7	Fadhli & Mustofa (2020), Indonesia	To determine the effect of the combination of Quranic recitation therapy and virtual reality on pain intensity in postoperative patients	Quasi-experimental	Thirty-two postoperative patients at PKU Muhammadiyah Hospital Temanggung is divided into 2 groups: Intervention and control	The intervention group received intravenous analgesic therapy, deep breathing relaxation, and a combination of Quranic recitation therapy and virtual reality. The control group only received standard therapy, which included intravenous analgesic therapy and deep breathing relaxation.	Surah Ar Rahman	NRS	The experimental group showed a more effective reduction in pain intensity than the control group, with P=0.009.

No.	Author, Year, Country	Purpose	Design	Participants	Intervention Model	Media	Measurement	Results
8	Hanafi et al. (2019), Indonesia	To analyze the effect of Al-Qur'an recitation on the comfort level of patients with decreased consciousness through pain scale assessment and cortisol hormone examination, which plays a role in pain prevention	Quasi-experimental with pre-test-post-test and a control group design	Twelve patients with decreased consciousness were assessed using the Glasgow coma scale with scores of 4-14, treated in the high care unit and inpatient wards at UNS Hospital, 6 patients in the intervention group and 6 in the control group.	The intervention group received Quranic recitation 3 times daily at 07:00, 15:00, and 22:00 for 3 days. Each intervention session lasted 35 minutes. The control group received no intervention.	Surah Ar-Rahman	VAS faces pain rating scale and comfort scale post-test group design for blood cortisol level testing	Based on the visual analog scale, the control group showed no significant reduction in pain levels (P=0.071), and the intervention group also did not show a significant reduction (P=0.658). Based on the faces pain rating scale, the control group exhibited significant pain reduction (P=0.026), while the intervention group did not (P=0.768). Based on the comfort scale, the control group showed significant improvement in comfort (P=0.040), whereas the intervention group did not (P=0.266). Cortisol levels were higher in the intervention group (15.9±5.22) than in the control group (10.96±9.93) but not statistically significant (P=0.286). The research indicates that although the pain scale did not show a significant decrease in the intervention group, there was an improvement in comfort reported through interviews as their consciousness gradually improved.
9	Maarof et al. (2023), Saudi Arabia	To determine whether listening to verses of the Qur'an during the immediate postoperative period affects the amount of opioids used for pain control in the Post Anesthesia Care Unit (PACU)	Randomized controlled trial	A total of 112 participants completed the study (56 control, 56 intervention)	The control group listened to natural sounds while receiving Fentanyl for pain relief, The intervention group listened to Qur'an recitation while also receiving Fentanyl for pain relief.	Surah Yaa-Seen, by Sheikh Mishary Rashed Alafasy	Wong-Baker faces pain scale	The study results showed that listening to selected verses from the Qur'an during the post-anesthesia recovery period reduced opioid use (P=0.008).

No.	Author, Year, Country	Purpose	Design	Participants	Intervention Model	Media	Measurement	Results
10	Ahmed et al. (2022), Pakistan	To evaluate the impact of Ayatul Kursi on pain levels in adult patients with hematological cancer admitted to the oncology in-patient units of a tertiary care hospital.	A time series quasi-experimental pre-test-post-test design	The total sample size was 35 patients	Patients listened to the recording using an MP3 player and earphones, with a frequency of 10 listens per day. Two intervention cycles were administered daily for three consecutive days.	Ayatul Kursi, by Qari Abdul Basit, with an Urdu translation	The pain level was measured on the NRS. Data measurements were taken at three different times: Before the intervention on the 1 <sup>st</sup> day, on the 2 <sup>nd</sup> day, and after the evening dose of the intervention on the 3 <sup>rd</sup> day.	Ayatul Kursi has a statistically significant impact on reducing pain levels (F=42.912, P<0.001).

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**Table 5.** The effects of listening to Quran recitation on pain

Outcome	Reference
Reducing the level of pain	Eid Aburuz et al. (2023); Marofi & Nikobakht (2018); Kurniyawan et al. (2018); Priyanto et al. (2019); Pervaiz et al. (2024); Kocak et al. (2022); Fadholi & Mustofa (2020); Maarof et al. (2023); Ahmed et al. (2022)
Providing relaxation	Eid Aburuz et al. (2023); Pervaiz et al. 2024; Kocak et al. (2022)
Calming the heart	Eid Aburuz et al. (2023)
Improving mental health	Eid Aburuz et al. (2023); Pervaiz et al. (2024)
Enhancing comfort	Kocak et al. (2022); Maarof et al. (2023)
Decreasing heart rate	Marofi & Nikobakht (2018); Fadholi & Mustofa (2020)
Improvement in oxygen saturation	Marofi & Nikobakht (2018)
Reducing anxiety	Kocak et al. (2022); Maarof et al. (2023); Ahmed et al. (2022)

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## Discussion

The Quran is the holy book of Muslims and is believed to provide psycho-spiritual therapeutic benefits to its readers and listeners (Kannan et al., 2022). In Muslim culture, the Quran serves as a spiritual guide and a resource for holistic healing, often utilized in alternative medicine through specific Quranic verses (Al-Jabi et al., 2021). According to a survey conducted by Abuelgasim et al. (2018) in Arab Saudi, 88.1% of cancer patients use the Quran as a form of treatment, with 11.9% stating that listening to Quranic recitations helps in controlling their pain.

Most studies included in this review involved adult participants, likely Muslim, given the cultural context of research conducted in Muslim-majority countries.

However, this assumption is based on the geographical context, as not all studies explicitly mentioned the religious affiliation of participants. One study (Marofi & Nikobakht, 2018) included neonates who naturally lack a religious orientation, emphasizing the potential physiological benefits of Quranic recitation beyond spiritual or religious contexts. While neonates are not yet oriented to religion, the study was considered relevant due to its focus on the physiological effects of Quranic recitation, which are not restricted by religious affiliation.

In various literature sources that we have outlined above, listening to Quranic recitations has shown positive effects on pain control in hospitals, whether it be acute pain such as postoperative pain (Fadholi & Mustofa, 2020), post-CABG surgery pain (Eid Aburuz et al., 2023), pain dur-

ing blood sample collection in neonates (Maarof et al., 2023), pain during wound care post-ORIF (Kurniyawan et al., 2018), pain in ICU patients (Pervaiz et al., 2024), and labor pain (Kocak et al., 2022). In addition to acute pain, Quranic recitations are also adequate for chronic pain control, such as in bone cancer patients and hematological cancer patients (Priyanto et al., 2019; Ahmed et al., 2022). However, only Hanafi et al. (2019) investigated the effect of Quran recitation on patients with reduced consciousness. They reported no statistically significant difference between pre- and post-pain scores as measured by the VAS, faces pain rating scale, and comfort scale. Although statistical significance was not observed, the intervention group exhibited a trend of lower pain scores post-intervention, and based on patient interviews, as consciousness gradually improved, listening to Quranic recitations provided comfort. This is evidenced by the increase in cortisol levels in the intervention group being higher than in the control group. This finding aligns with the study by Trevino et al. (2022), which stated that higher pain scores are associated with lower cortisol levels.

Listening to Quranic recitations induces a calming and relaxing effect, evidenced by increased alpha waves and decreased diastolic blood pressure (Ul Ain Irfan et al., 2019). Similarly, Al-Galal and Fakhri Taha Alshaihli (2017) stated that participants who listened to Quranic recitation produced higher alpha waves than beta waves, reflecting calmness and relaxation. Listening to Quranic recitation stimulates alpha waves, which increase endorphin levels, creating a sense of relaxation and alleviating pain (Eid et al., 2023). This finding aligns with Wahida's (2015) research, which found that  $\beta$ -endorphin levels in laboring mothers who listened to Quranic recitation were higher compared to the control group.  $\beta$ -endorphins are a natural analgesic that alleviates pain and induces relaxation.

Of the 10 studies, 6 utilized Surah Ar-Rahman, chosen for its meaning of mercy and compassion. It reflects God's majesty and ongoing mercy, even during illness, reminding us always to appreciate Allah's blessings (Hanafi et al., 2019). This finding aligns with the research by Suwardi and Rahayu (2019), which found that Surah Ar-Rahman has short verses, making it easy to understand and quickly enhancing one's spirituality towards Allah Subhanahu Wa Ta'ala (SWT) (Allah, The Most Glorified and The Most High). Most verses in this Surah speak about Allah's mercy, and one verse is repeated 31 times, emphasizing the immense blessings Allah has bestowed.

There are several limitations to this review. First, despite using broad search terms, we may have missed

some articles due to variations in terminology. Second, our review is limited to English articles, so that we might have overlooked essential contributions in other languages. Additionally, the lack of standardization in intervention protocols, such as differences in the duration of Quranic recitation sessions and the choice of Surahs, complicates comparisons across studies.

## Conclusion

According to this scoping review, listening to Quranic recitations can reduce pain in postoperative patients, patients with decreased consciousness, pregnant women in labor, cancer pain, and pain from procedural interventions such as wound care and blood sample collection in neonates. Surah Ar-Rahman is the most frequently used chapter in this therapy. Based on the results of this review, it is hoped Quranic recitation therapy can be integrated into pain management protocols in hospitals as a routinely used complementary therapy. Future research should focus on establishing standardized methodologies and exploring the therapy's efficacy in non-Muslim populations to understand its universal applicability.

## Ethical Considerations

### Compliance with ethical guidelines

Ethical issues related to authorship were considered. Duplicate publications were avoided. In case of suspected plagiarism or fraudulent research, the article was excluded. The authors tried to write with inclusion, respect, and acknowledgment of diversity. Also, bias and exclusive language (sexist, racist, homophobic, etc.) were avoided.

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### Authors' contributions

Conceptualization: Sunarti Maming; Study design: Sunarti Maming, and Rosyidah Arafat; Data analysis, Initial draft preparation, and final approval: All authors; Supervision: Rosyidah Arafat, and Saldy Yusuf;

### Conflict of interest

The author declared no conflict of interests.

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