

THE IMPACT OF SURAH AL-REHMAN RECITALS HEARING ON PAIN AND LENGTH OF ICU STAY

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ABSTRACT

Background: Pain management is crucial for patients admitted to the ICU, particularly those with significant pain levels. Non-pharmacological interventions, including spiritual practices, have been proposed to alleviate pain. **Objective:** To evaluate the effects of listening to the Surah Al-Rehman on pain and length of stay (LoS) in the ICU and hospital among patients with a pain score greater than 5 on the visual analog scoring system (VAS). **Study Design:** Prospective case-control study. **Setting:** The study was conducted at Bahria Town International Hospital Lahore. **Duration of Study:** September 2021 to August 2023. **Material and Methods:** Patients who met the inclusion criteria (aged 18 years or older, ICU admission, VAS pain score >5, ability to engage with the investigator, signed consent form, no hearing impairments, and no hemodynamic disturbances, minimum stay of four days at ICU) were enrolled. The intervention group (n=50) listened to Surah Al-Rehman for 20 minutes thrice daily for seven days. The control group (n=50) received standard care. Pain levels were measured using a numerical scale (0-10) at baseline and on the fourth day. Statistical analysis was performed using SPSS version 21. **Results:** The study included 100 patients admitted to the Department of Internal and Critical Care Medicine at Bahria International Hospital Lahore. Baseline pain levels were similar between groups. Post-intervention, the intervention group reported significantly lower pain scores (4.59 ± 2.41) than the control group (5.54 ± 2.64 , $p=0.03$). A paired t-test showed a significant reduction in pain scores within the intervention group ($p=0.03$). The intervention group also had a significantly shorter ICU length of stay (LoS) (5.1 ± 4.18 vs. 6.41 ± 4.25 days, $p<0.05$) and hospital LoS (10.54 ± 3.45 vs. 15.84 ± 6.36 days, $p<0.05$). **Conclusion:** Listening to the Surah Al-Rehman significantly reduced pain and shortened ICU and hospital stays for patients admitted with high pain levels. These findings suggest that incorporating spiritual care, such as Quran recitation, may enhance postoperative recovery and reduce the need for pharmacological pain management.

Keywords: Intensive Care Units, Pain Management, Postoperative Pain, Prospective Studies, Quran, Spiritual Therapies, Visual Analog Scale

INTRODUCTION

Effective pain management is a critical component of patient care, especially for those admitted to the intensive care unit (ICU) with significant pain (1). Severe pain can lead to numerous complications, including heightened stress responses, impaired healing, and prolonged ICU stays (2). Traditional pain management primarily relies on pharmacological interventions, such as opioids, which, while effective, can come with a range of adverse effects, including increased risk of morbidity and mortality (3). This has spurred interest in non-pharmacological pain management strategies that can complement or, in some cases, reduce the need for medication. Spiritual practices have been increasingly recognized for their potential role in pain management. Listening to religious texts, such as the Holy Quran Surah named Surah Al-Rehman, is one such practice that has been explored for its soothing and therapeutic effects. Several pilot and observational studies suggest that Surah Al-Rehman recitals (by Qari Abdulbasit Abdulsamad from Egypt) can positively influence psychological and physiological well-being (4). For instance, reciting the Surah Al-Rehman has been found to lower anxiety, improve sleep quality, and reduce levels of depression in various patient populations (5). The calming effects of Surah Al-Rehman recitals are thought to be mediated through the stimulation of alpha brain waves, which promote relaxation and enhance the production of endorphins—natural pain relievers in the body (6). The potential benefits of listening to the Surah Al-Rehman (recited by Qari Abdulbasit Abdulsamad from Egypt) extend beyond psychological comfort to tangible physiological improvements. For instance, it has been shown to reduce heart rate, lower blood pressure, and stabilize breathing rates in patients undergoing surgical

procedures. (7). These physiological changes can contribute to a more stable post-operative course and reduce the overall burden on the cardiovascular system. (8) Given these broad-ranging benefits, there is a compelling rationale for exploring the impact of Surah Al-Rehman's recitals on pain and ICU length of stay.

Despite the growing body of evidence supporting non-pharmacological interventions in pain management, there is a lack of specific studies investigating the impact of Surah Al-Rehman recitals on ICU patients experiencing significant pain. This gap in research highlights the need for a targeted study to evaluate whether Surah Al-Rehman's recitals can effectively reduce pain and shorten ICU stays. This case-control prospective study aims to assess the effects of listening to the Surah Al-Rehman (by Qari Abdulbasit Abdulsamad from Egypt) on pain levels and the length of ICU stay among patients with a pain score greater than 5 on the visual analog scoring system (VAS). By investigating these outcomes, the study seeks to provide evidence on whether incorporating Surah Al-Rehman recitals into standard ICU care can enhance patient recovery, reduce pain, and minimize the length of ICU hospitalization. This could lead to improved patient outcomes and reduced reliance on pharmacological pain management strategies.

METHODOLOGY

A prospective case-control study was conducted to evaluate the effects of listening to the Surah Al-Rehman (by Qari Abdulbasit Abdulsamad from Egypt) on pain levels and the length of ICU stay among patients admitted with significant pain. The study was conducted in Bahria Town International Hospital, Lahore. The study period was from September 2021 to August 2023. The research population consisted of

all eligible patients admitted to the ICU of the participating hospitals during the study period. To be included in the study, patients had to meet several criteria. They needed to be 18 or older and have a pain score greater than 5 on the visual analog scoring system (VAS). Additionally, they had to be capable of engaging with the investigator during the therapy and interview sessions. Consent was also a fundamental criterion; patients must sign a written consent form to participate. Moreover, participants had to have no hearing impairments, ensuring they could listen to the Quran recitations without difficulty, and they needed to be free of hemodynamic disturbances. Exclusion criteria were also clearly defined. Patients who exhibited hemodynamic instability were not considered for the study. Furthermore, any patient who could not engage effectively with the investigator due to cognitive impairment or other reasons was excluded from participation. This ensured that the data collected would be reliable and the intervention could be appropriately administered and evaluated.

One hundred patients were enrolled in the study, with 50 patients in the intervention group and 50 in the control group.

The intervention group listened to recitations of Surah Al-Rehman from the Surah Al-Rehman for 20 minutes twice daily, at 9 am and 4 pm, for four days. Nurses were instructed not to administer any other non-pharmacological pain treatments to the intervention group to prevent data contamination except from routine pain management included paracetamol which was advised to all intervention groups at the dose of 1000mg three times a day.

The control group received the standard care provided by the ICU nurses without any additional non-pharmacological pain interventions from routine ICU care.

Demographic details, including age, gender, marital status, smoking history, and medical history, were collected from patient records. Pain levels were measured using a numerical scale ranging from 0 to 10 at baseline and again on the fourth postoperative day. Length of stay (LoS) in the ICU and hospital were obtained from medical records following discharge.

The primary outcome measures were pain levels and the length of ICU and hospital stay. Pain levels were assessed using a numerical pain scale (0-10). The length of ICU and hospital stay was recorded in days. The ethical boards approved the study of all participating hospitals. Before enrollment, all participants provided written informed consent. Patient confidentiality was maintained throughout the study, and data were anonymised before analysis.

Data were analysed using SPSS version 21. Descriptive statistics were used to summarise the sociodemographic and clinical characteristics of the study population. Independent t-tests were used to compare initial pain levels between the intervention and control groups to rule out baseline differences and prevent bias. Post-intervention pain scores were compared between the two groups using independent t-tests. Within-group changes in pain scores for the intervention group

were analysed using paired t-tests. Independent t-tests were also utilized to compare the LoS between the two groups. A p-value of less than 0.05 was considered statistically significant.

RESULTS

The study included 100 patients, divided equally between the intervention group (n=50) and the control group (n=50). Table 1 presents the demographic and clinical characteristics of the patients in both groups. The average age of the participants was 67.1 ± 10.9 years, with over fifty percent being male (64% in the intervention group and 58% in the control group) (Figure 1). The majority of the participants were married. The prevalence of hypertension was 62% in the intervention group and 52% in the control group. Both groups were comparable in terms of demographics and clinical features. At baseline, the two groups had no significant difference in pain levels. However, post-intervention, the intervention group experienced significantly lower pain scores than the control group. A paired t-test within the intervention group showed a significant reduction in pain scores from baseline to follow-up ($p=0.03$).

The intervention group also had significantly shorter lengths of stay in the ICU and the hospital than the control group.

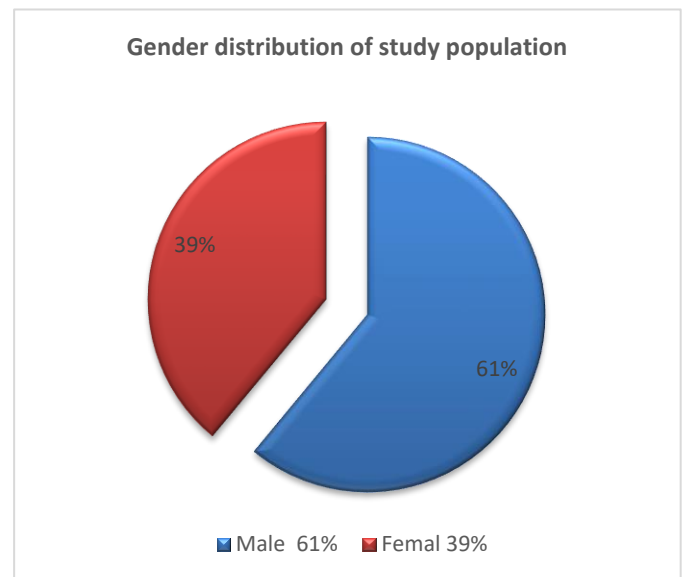


Figure 1: Showing the gender distribution of our study population.

Table 1: Patient Demographics and Clinical Characteristics

Variable	Intervention Group (n=50) n (%)	Control Group (n=50) n (%)	Chi-square	P-value
Age (years)	68.3 ± 9.1	67.8 ± 11.3	0.7	0.21
Gender				
Male	32 (64)	29 (58)	1.2	0.14
Female	18 (36)	21 (42)		
Marital Status				
Married	44 (88)	43 (86)	2.3	0.36
Single/Unmarried	6 (12)	7 (14)		
Smoking History				
Yes	26 (52)	23 (46)	2.8	0.97
No	14 (28)	12 (24)		
Former Smoker	10 (20)	15 (30)		

History of HTN	31 (62)	26 (52)	3.1	0.58
History of DM	22 (44)	18 (36)	1.9	1.14
History of HF	14 (28)	17 (34)	2.4	1.30
BMI (kg/m ²)	27.1 ± 5.1	25.8 ± 5.2	0.6	0.67

Table 2: Pain Scores Before and After the Intervention

Variable	Group	M ± SD	P-value
Baseline Pain	Intervention	6.79 ± 3.09	1.13
	Control	7.48 ± 3.84	
Follow-up Pain	Intervention	4.59 ± 2.41	0.03
	Control	5.54 ± 2.64	

Table 3: Length of Stay in ICU and Hospital

Variable	Intervention Group (n=50)	Control Group (n=50)	P-value
ICU LoS (days)	5.1 ± 4.18	6.41 ± 4.25	<0.05
Hospital LoS (days)	10.54 ± 3.45	15.84 ± 6.36	<0.05

DISCUSSION

According to modern concepts, pain is a psychological, social, and bodily experience.(9) . Pain management strategies should, therefore, include nonpharmacological approaches that address psychological and spiritual challenges in addition to using medicines. One non-pharmacological method that has been utilised recently to help ICU patients manage their pain is music therapy. (10). In Pakistan, with its strong spiritual, religious, and cultural heritage, listening to the Holy Quran, particularly Surah Al-Rahman, is preferred during illness.

The present investigation aimed to determine the impact of listening to Surah Al-Rahman on pain and length of ICU stay (LoS) in patients admitted to the ICU. This study was inspired by the high incidence of pain among these patients, its detrimental effects, and the usefulness of spiritual support in relieving pain.

The results of this investigation confirmed the hypothesis that listening to Surah Al-Rahman has potential benefits for pain management and reducing ICU stay in patients. The intervention group, which listened to Surah Al-Rahman, showed improved outcomes, with a statistically significant difference in pain levels and LoS compared to the control group.

Listening to Surah Al-Rahman can improve mental health, ease suffering, and calm emotions. (5). This practice reduces pain signals transmitted by the brain's nerves, relaxes muscles, and diverts the mind from pain. (11). Additionally, it raises endorphin levels, increases the stress threshold, induces relaxation, and ultimately reduces pain by stimulating alpha brain waves (12).

There may be a link between pain and LoS. Severe pain can make it difficult for patients to breathe deeply, leading to atelectasis and respiratory insufficiency(13), which can prolong ICU stay. This might account for the significant reduction in pain and LoS in the intervention group following ICU admission and listening to Surah Al-Rahman. Previous studies have shown the direct impact of spiritual practices on pain alleviation, demonstrating statistically significant differences between patient groups(14).

Other non-pharmacological interventions, such as massage therapy, acupressure, cold therapies, and deep breathing techniques, have improved pain intensity across pre- and post-intervention periods. (14). Compared to these methods, listening to Surah Al-Rahman presents no risks, waiting periods, or additional workload, making it a highly feasible non-pharmacological therapy. The current study showed that patients in the intervention group had shorter ICU and hospital stays compared to the control group. Prolonged ICU or hospital stays increase the risk of postoperative complications, including hospital-acquired infections and higher readmission rates.

The average length of stay observed in our study was lower compared to some previous studies. (15), though higher than others (16).

Given that the intervention group showed significantly better outcomes regarding reduced pain intensity and shorter length of stay, healthcare providers should consider incorporating spiritual care, such as listening to Surah Al-Rahman, in post-ICU care protocols. Future research should explore the effects of listening to Surah Al-Rahman on pain associated with other distressing procedures, such as chest tube removal, use of incentive spirometers, and chest physiotherapy. Additionally, qualitative analysis of pain experiences could provide deeper insights, as pain is a subjective sensation influenced by various factors.

Our research has several limitations. The study's restriction to a single location may have contributed to participation bias and limited the generalizability of the results. Another limitation is the modest sample size. Various factors may influence how patients in both groups perceive their pain, and there was no qualitative analysis of pain experiences. Further large-scale, multi-centre studies are needed to confirm these findings and explore additional applications of Surah Al-Rahman in pain management.

CONCLUSION

In conclusion, this study demonstrates that listening to Surah Al-Rahman significantly reduces pain intensity and shortens ICU and hospital stays for patients admitted to the ICU. These findings support the incorporation of spiritual interventions, like Surah Al-Rahman recitation, in non-pharmacological pain management approaches for ICU patients. While further research is needed to validate these results on a larger scale and explore additional applications, this study underscores the potential of spiritual practices to enhance patient outcomes in ICU settings.

DECLARATIONS

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department Concerned.

Consent for publication

Approved

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CONFLICT OF INTEREST

The authors declared the absence of a conflict of interest.

AUTHOR CONTRIBUTION**RIZWAN PERVAIZ**

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