The Effect of Al-Qur'an Recitation Therapy on Patient Comfort in the High Care Unit

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Abstract

Objective: This study aims to investigate the effect of Al-Quran recitation therapy on patient comfort in the High Care Unit (HCU).

Method: This quantitative study utilized a quasi-experimental design with a two-group pretest-posttest approach. A total of 52 HCU patients were selected through convenience sampling and divided equally into two groups: 26 patients in the intervention group and 26 in the control group. The intervention group received Al-Quran Surah Ar-Rahman recitation therapy for 30 minutes daily over three consecutive days, while the control group received standard hospital care. Patient comfort was measured using the SGCQ questionnaire. Data were analyzed using paired t-tests.

Results: The average initial comfort score in the intervention group was 82.3 (±6.06). Following the administration of Al-Quran recitation therapy, the comfort score increased to 96.23 (±5.26). A statistically significant difference was observed in the increase in comfort scores after the intervention when comparing the intervention group, which received Al-Quran recitation therapy, to the control group, which did not receive this therapy ($p < 0.001$).

Conclusion: The integration of critical care with Al-Quran recitation therapy has been shown to enhance patient comfort in the High Care Unit (HCU). Al-Quran recitation (murottal) can be recommended as part of nursing intervention programs for patients in critical care settings

Keywords: Comfort, HCU, Al-Quran recitation.

INTRODUCTION

The critical unit, or intensive care unit (ICU), is a hospital treatment area dedicated to patients with life-threatening conditions requiring intensive monitoring and advanced life support (Schell et al., 2018). Within this context, the High Care Unit (HCU), also known as the Intermediate Care Unit (IMC), serves patients with moderate instability who need close observation for potential life-threatening conditions (Reinberger et al., 2020; Waydhas et al., 2018). Patients in these critical care areas often experience discomfort—both physical and psychological—due to disease, treatment procedures, medical equipment, and environmental factors (Pangestika, 2020). Additional contributors to discomfort include clinical conditions such as pain, agitation, and delirium (Berntzen et al., 2020).

Globally, critical care admissions have risen, with 9.8–24.6% of critical patients treated per 100,000 population, alongside a notable increase in deaths from chronic critical illnesses (WHO, 2015). Approximately 70% of ICU patients report discomfort caused by illness, interventions, and environmental stressors. Sedation therapy has been shown to reduce discomfort; however, discomfort persists significantly in 66.6% of sedated patients compared to 80% in non-sedated ones, with pain being a primary contributor

(50.8%) (Verma et al., 2021). Additionally, discomfort in ICUs is strongly associated with pain, with an average discomfort score of 18.4 ± 12.5, regardless of the type of critical ward (Jacques et al., 2019). Despite its importance, limited studies focus on patient comfort specifically in HCUs.

HCUs accommodate patients with stable but critical conditions requiring close care and monitoring for early detection of life-threatening changes (KEMENKES RI, 2011; Nasraway et al., 1998). Common diagnoses include pneumonia, chronic obstructive pulmonary disease (COPD), sepsis, and electrolyte imbalances, with higher mortality rates observed in pneumonia and sepsis cases (Morland et al., 2018). Patients' consciousness levels in HCUs range from alertness to coma, with associated factors like noise (from alarms or other patients) further exacerbating discomfort and anxiety (Pangestika, 2020; Yeh & Ostini, 2020). These stressors activate the sympathetic nervous system, impacting hemodynamic stability, increasing anxiety, and reducing comfort (Magnolia & Ouzounidou, 2013).

Comfort in critical care is crucial for recovery, as it promotes internal support for healing and reduces length of stay (LOS) and healthcare costs (Kolcaba, 1992; Lynda, 2000). Kolcaba's Comfort Theory categorizes comfort into physical, psycho-spiritual, psychosocial, and environmental domains, emphasizing its holistic impact on patient outcomes (Kolcaba et al., 2006). Discomfort correlates significantly with prolonged ICU stays ($r = 0.457$, $p < 0.001$) and increased anxiety ($r = 0.674$, $p < 0.001$), with discomfort and anxiety rising daily if unmanaged (Hakamy, 2022).

While pharmacological interventions like analgesics and sedatives are widely used, their long-term effects pose risks. Non-pharmacological approaches, including relaxation techniques, music therapy, and spiritual interventions, are essential complementary therapies (Pangestika, 2020). Music therapy, endorsed by the American Music Therapy Association, has shown effectiveness in reducing stress, pain, anxiety, and agitation while improving sleep and emotional well-being (Chen et al., 2021; Çiftçi & Öztunç, 2015; Demir et al., 2021). For instance, pain scores in ICU patients decreased from 5.41 to 4.58 after music therapy ($p = 0.004$), reflecting enhanced comfort (Kolcaba, 1992).

Murottal, a spiritual intervention involving Quranic recitation, has proven effective in reducing pain, anxiety, and stress while promoting relaxation through neuropeptide stimulation and endorphin production (Gunawan & Mariyam, 2022). Studies demonstrate its effectiveness in critical care, with significant improvements in comfort scores and hemodynamic stability (Rustam et al., 2017; Ikhtiarini et al., 2019). Surah Ar-Rahman, known for its soothing verses, has been particularly effective in reducing stress and anxiety (Syafei & Suryadi, 2018).

This study emphasizes the importance of investigating the impact of murottal therapy on patient comfort in High Care Units (HCUs), an area with limited prior research. According to Kolcaba's theory of comfort, this concept encompasses three dimensions: relief (freedom from pain), ease (physical and psychological well-being), and transcendence (spiritual fulfillment). Utilizing this holistic framework is expected to enhance recovery and overall well-being in critical care settings. Consequently, this study aims to address the research gap by evaluating the effect of Al-Quran recitation therapy on patient comfort in the HCU.

METHOD

Study Design

This research is a quantitative study employing a quasi-experimental design with a pretest-posttest group approach. The study involved two groups: the first group was the intervention group, which received the intervention of listening to Al-Quran Surah Ar-Rahman recitation, while the second group, the control group, did not receive any health treatment or intervention. The study was conducted in the High Care Unit (HCU) of a public hospital in Bandung City, Indonesia, from December 2022 to January 2023.

Intervention Procedure

The intervention group was provided with a daily recitation therapy of Al-Quran Surah Ar-Rahman for 30 minutes, carried out over three consecutive days. The recitation sessions were

structured to ensure consistency and proper duration, with participants listening to the recitation in a quiet and comfortable environment. This therapeutic approach was aimed at promoting relaxation, emotional well-being, and potentially influencing physiological responses through the calming effects of the verses. On the other hand, the control group received standard hospital care, which included the usual medical treatments and support available to patients in the hospital setting. The control group did not have any exposure to the recitation therapy, allowing for the comparison of outcomes between the group receiving the intervention and those receiving only conventional care. This design aimed to evaluate the impact of Al-Quran Surah Ar-Rahman recitation on the participants' overall well-being, stress levels, and any possible effects on their medical condition in comparison to standard care.

Population and Sample

The population in this study consisted of patients receiving treatment at the High Care Unit (HCU) of a public hospital in Bandung City, Indonesia. The inclusion criteria were: adult patients, Muslim, with complementary awareness, stable vital signs, and no limitations in auditory or visual sensory function.

Convenience sampling was used to select participants. The sample size was estimated using G-Power software version 3.1.9.7, employing a t-test for the difference between two independent means (two groups). The assumptions included an α error probability of 0.05, an effect size f of 0.8, a power level (1-β error probability) of 0.85, a numerator degree of freedom (df) of 1, a noncentrality parameter (δ) of 2.8, and a critical t-value of 1.6. Based on these calculations, a minimum sample size of 48 respondents was estimated, with an additional 10% added to account for potential dropouts, resulting in a total of 52 respondents. These respondents were equally divided into 26 participants in the intervention group and 26 in the control group.

Research Instrument

To measure the primary outcome, which is comfort, the Shortened General Comfort Questionnaire (SGCQ) was used. The SGCQ is a validated tool developed by Kolcaba, Schirm, and Steiner in 2006 to assess comfort levels across various contexts, particularly within healthcare settings. Its primary purpose is to evaluate the comfort levels of individuals, especially patients in clinical environments. The questionnaire focuses on capturing patients' subjective experiences of comfort, providing valuable insights that can guide healthcare practices and enhance patient care. The Shortened General Comfort Questionnaire (SGCQ) consists of 28 items, with Likert scores ranging from 1 (strongly disagree) to 6 (strongly agree). Of these items, 19 are negative statements, where the scores are reversed (from 6 to 1) when calculating the total score. A higher score indicates greater comfort. The maximum possible score is 168, while the minimum possible score is 28. The SGCQ has demonstrated good construct validity, showing strong correlations with other established measures of comfort and quality of life. Its internal consistency is high, with a Cronbach's alpha coefficient above 0.80, indicating reliable measurement of the underlying construct. Additionally, the SGCQ has been translated into Indonesian and validated by experts in the field.

To measure the confounding factors of pain and anxiety, the Numeric Rating Scale (NRS) and the Hamilton Anxiety Rating Scale (HARS) were used. The Numeric Rating Scale (NRS) is a widely utilized tool in clinical settings for assessing pain intensity. It provides a simple and effective method for patients to communicate their pain levels to healthcare providers. This tool helps track pain progression and guide treatment decisions by quantifying pain intensity. The NRS typically consists of 11 points, ranging from 0 to 10, where 0 indicates "no pain" and 10 represents "the worst pain imaginable." Patients select the whole number that best reflects their current pain intensity, often based on their experience over the last 24 hours. Scores on the NRS range from 0 to 10, with higher scores indicating greater pain intensity. The NRS has demonstrated both validity and reliability. It correlates well with other pain assessment tools, such as the Visual Analog Scale (VAS), with reported correlations ranging from 0.86 to 0.95 in chronic pain populations. High test-

retest reliability has also been reported, with coefficients around 0.96 for literate patients and similar values for illiterate patients.

The Hamilton Anxiety Rating Scale (HARS), also known as the Hamilton Anxiety Scale (HAM-A), is a widely used tool for assessing the severity of anxiety symptoms in individuals. Developed by Max Hamilton in 1959, it was one of the first scales created to measure anxiety and remains commonly used in clinical settings. The primary purpose of the HARS is to quantify the severity of anxiety symptoms, particularly in patients diagnosed with anxiety disorders. It enables clinicians to assess the extent of anxiety and monitor changes over time, thereby guiding treatment decisions. The HARS consists of 14 items, each addressing different aspects of anxiety, including both psychological symptoms (e.g., mood, fears) and somatic symptoms (e.g., physical complaints related to anxiety). Each item is rated on a scale from 0 to 4: 0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, and 4 = Very severe. The total score can range from 0 to 56, with the following interpretation: 0-16 = No anxiety, 17-24 = Mild anxiety, 25-30 = Moderate anxiety, and 31 and above = Severe anxiety. The HARS has demonstrated good validity and reliability, correlating well with other established measures of anxiety, confirming its construct validity. It also has acceptable inter-rater reliability, making it a trusted tool for clinicians in assessing anxiety levels.

Data Analysis

Data analysis was conducted in stages using the statistical software package IBM SPSS version 25. Descriptive statistics, including the mean, standard deviation, minimum, and maximum values, and frequency distributions were reported. To examine within-group differences, a paired t-test was used. Statistical significance was set at a p-value < 0.05.

Ethical Considerations

Approval for ethical conduct was secured from the appropriate Institutional Review Board, and informed consent was obtained from all participants prior to their participation.

RESULT

Respondent characteristics were obtained from the demographic data in the research questionnaire. These characteristics also served to assess the homogeneity between the control and intervention groups. The following table presents the characteristics of the respondents.

Table 1. Demographic description of patient characteristics (n=52)

Characteristics	Total (n=52)	Intervention n=26	Control n=26	*P-value*
	F (%)	F (%)	F (%)	
Age				0,15[a]
Mean ± (SD)	48,38±17,38	44,85±17,19	51,92±17,16	
Gender				1,00[b]
Women	28 (55,8)	13 (50)	16 (61,5)	
Men	23 (44,2)	13 (50)	10 (38,5)	
Level of education				0,694[b]
Elementary school	4 (7,7)	3 (11,5)	1 (3,8)	
Junior high school	9 (17,3)	3 (11,5)	6 (23,1)	
Senior high school	26 (50)	14 (53,8)	12 (46,2)	
Bachelor degree	12 (23,1)	5 (19,2)	7 (26,9)	
Master degree	1 (1,9)	1 (3,8)		

Note: [a]Independent t-test test results; [b]Chi-Square Test Results

Table 1 above presents the demographic characteristics of the respondents in both the intervention and control groups. The average age of the participants in both groups was 48.38 years (±17.38), indicating a similar age distribution across the groups. In terms of gender, the intervention group had an equal distribution of men and women, each comprising 50% of the group. In contrast, the control

group had a higher proportion of women, making up 61.5% of the respondents, while men constituted 38.5%. Regarding level of education, the majority of participants in both groups had completed high school. Specifically, 53.8% of respondents in the intervention group and 46.2% in the control group had high school-level education as their most recent level of formal education.
The homogeneity test results show a p-value greater than 0.05, which suggests that there were no significant differences between the intervention and control groups regarding age, gender, and education level. This indicates that the groups were comparable in these characteristics, which supports the validity of comparing the outcomes of the two groups in the study.

Table 2. The means scores of comfort variable between pre-and post-intervention within each group (n=52)

Characteristics	Total (n-52) Mean±SD	Intervention (n-26)		Control (n-26)	
		Mean±SD	Min-Max	Mean±SD	Min-Max
Comfort					
Pre-test	82.67±5.83	82.31±6.06	74-95	83.04±5.69	74-92
Post-test	89.12±9.6	96.23±5.26	86-106	82.00±7.42	64-94
Domains of Comfort (SGCQ)					
Physic					
Pre-test	19.50±3.31	19.65±3.59	14-26	19.35±3.06	14-26
Post-test	2.21±3.90	25.15±2.05	20-28	19.27±2.98	14-24
Psychospiritual					
Pre-test	32.27±3.30	31.81±3.25	28-41	32.73±3.36	28-41
Post-test	34.04±4.08	35.88±3.37	30-42	32.19±3.94	26-41
Psychosocial					
Pre-test	13.54±1.48	13.15±1.64	10-16	13.92±1.23	12-16
Post-test	14.79±1.49	15.42±1.50	12-18	14.15±1.22	12-16
Environment					
Pre-test	17.37±1.82	17.69±1.95	15-20	17.04±1.66	14-20
Post-test	18.00±2.35	19.69±1.51	17-24	16.31±1.73	12-20

Based on Table 2, in the intervention group, the average comfort level before the intervention was 82.3 (±6.06), which increased to 96.23 (±5.26) after receiving the Al-Quran murottal therapy. In contrast, the control group showed a decrease in the average comfort score, from 82.00 (±7.42) before the intervention. This indicates a significant increase in comfort scores in the intervention group compared to the control group after receiving the Al-Quran murottal therapy. Additionally, the intervention group exhibited improvements across various comfort domains after the intervention. The physical domain showed an increase of 25.15 (±1.05), the psychospiritual domain increased by 35.88 (±3.37), the psychosocial domain by 15.42 (±1.50), and the environment domain by 19.69 (±1.51). Meanwhile, in the control group, only the psychosocial domain demonstrated an increase in comfort scores, with a score of 14.15 (±1.22) after the intervention.

Table 3. Mean score of pain and anxiety variables in pretest and posttest (n = 52)

Characteristics	Total (n-52) Mean±SD	Intervention (n-26)		Control (n-26)	
		Mean±SD	Min-Max	Mean±SD	Min-Max
Painful					
Pre-test	3,21±1,46	3,38±1,69	1-7	3,04±1,18	1-5
Post-test	1,96±1,36	1,54±1,03	0-3	2,38±1,52	0-6

Emergency					
Pre-test	33,23±10,07	33,54±10,30	16-58	32,92±10,04	16-56
Post-test	27,63±9,50	23,08±5,22	12-33	32,19±10,67	17-53

Based on the data presented in Table 3, both the intervention and control groups showed a reduction in their post-test pain and anxiety scores. For pain scores, the intervention group showed a greater reduction, with an average score decreasing from 3.38 (±1.69) before the intervention to 1.54 (±1.03) after the intervention. Similarly, anxiety scores in the intervention group decreased more than those in the control group. The average anxiety score in the intervention group decreased from 32.19 (±10.67) pre-intervention to 23.08 (±5.22) post-intervention. In comparison, the control group showed a smaller decrease in both pain and anxiety scores, suggesting that the recitation therapy had a more pronounced effect on reducing these symptoms.

Table 4. Differences in comfort, pain, and anxiety score pre and post-intervention within each group

Variable	Pre-Test	Post-Test	95% CI	*T*	*P-Value*
Pain					
Intervention	82.31±6.06	96.33±5.26	10.86 -16,99	9.35	0.000
Group	83.04±5.69	82.00±7.42	-3.53 (-) -	-0.86	0.399
Control Group			1.45		
Pain	3.38±1.69	1.54±1.03	1.37 - 2.33	7.91	0.000
Intervention	3.04±1.19	2.38±1.52	0.17 - 1.14	2.78	0.010
Group					
Control Group					
Emergency					
Intervention	33.54±10.30	23.08±5.22	7.52 - 13.39	7.33	0.000
Group	32.92±10.04	32.19±10.67	-1.65 - 3.12	-0.63	0.534
Control Group					

Based on the results presented in Table 4, the paired t-test indicates a significant difference in the comfort scores within the intervention group before and after receiving the Al-Quran murottal therapy, with a p-value of 0.000 (P<0.05). In contrast, the control group demonstrated no significant difference in comfort levels before and after the intervention, with a p-value of 0.399. Additionally, within the intervention group, there were significant differences in both the average pain and anxiety scores before and after the Al-Quran murottal therapy, with p-values of 0.000 (P<0.05) for pain and 0.000 (P<0.05) for anxiety. Conversely, in the control group, a significant difference was observed only in the pain factor, with a p-value of 0.010 (P<0.05), while no significant difference was found in the anxiety factor, with a p-value of 0.534.

DISCUSSION

This research demonstrates the positive impact of Al-Quran murottal therapy on patient comfort levels in the High Care Unit (HCU). The results show a significant difference in comfort scores before and after the intervention, with a p-value of 0.000. This finding aligns with previous research by Rustam et al. (2017), which observed similar improvements in patient comfort after a three-day Al-Quran recitation therapy intervention.

In the intervention group, comfort improvements were seen across all domains—physical, psycho-spiritual, psychosocial, and environmental—each showing higher scores compared to the control group. Kolcaba's comfort theory supports this holistic approach to patient care, encompassing physical, spiritual, environmental, and psychosocial aspects. The findings of this study are

consistent with those of Rustam et al. (2017), who also applied Kolcaba's framework and used the Shortened General Comfort Questionnaire (SGCQ) to measure comfort.

A notable increase in psycho-spiritual comfort in the intervention group was observed, likely due to the relaxation and religious effects of Al-Quran recitation. This therapeutic intervention, shown to enhance spiritual health, has been found to reduce anxiety, as supported by Elcokany and Abd El Wareth (2019). Additionally, Gunawan and Mariyam (2022) explained that listening to the Quran promotes relaxation and improved comfort by inducing a mind-body connection.

Psychosocial comfort was also enhanced in the intervention group, likely due to increased family involvement and social interactions. Environmental comfort, including factors like noise, light, and temperature, also improved, reflecting Kolcaba's view that discomfort in a chaotic environment impedes healing. The control group, though receiving non-sedative analgesics, did not show the same improvements in comfort, suggesting that comfort is influenced by more than just pain relief, as environmental factors and social support may play significant roles.

Moreover, the study assessed the influence of confounding factors like pain and anxiety, revealing a significant reduction in both for the intervention group (p-values of 0.000 for both). Kolcaba's theory posits that the absence of pain is a key indicator of physical comfort, and previous research by Putra et al. (2020) supports the finding that Al-Quran recitation therapy reduces pain and anxiety in preoperative patients. Alhouseini et al. (2014) also highlighted the calming effects of Quran recitations on brain waves, contributing to relaxation and improved immunity.

Interestingly, while pain scores in the control group decreased, overall comfort did not improve, which points to the multidimensional nature of comfort. Berntzen et al. (2020) noted that comfort is influenced by factors beyond pain. The extended treatment duration in the control group may have contributed to increasing discomfort, as discussed by Hakamy (2022). Additionally, patient characteristics such as age and education level played a role in comfort. Older patients tend to better adapt to discomfort, and higher education levels are associated with better health information comprehension, which may enhance comfort levels (Sulistyowati & Daniel Hasibuan, 2021).

In conclusion, Al-Quran recitation therapy has a significant positive impact on the comfort of HCU patients by improving physical, psycho-spiritual, psychosocial, and environmental comfort domains, while also reducing pain and anxiety levels. This contributes to the overall well-being of patients, emphasizing the importance of holistic care in critical settings.

CONCLUSION

Al-Quran recitation therapy has a significant impact on enhancing patient comfort in the HCU. Despite the presence of confounding factors such as pain and anxiety, these variables did not affect the significant improvement in patient comfort.

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Conflict of interest

All authors declare no conflict of interest.

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