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THE EFFECT OF AL-MA'TSURAT MORNING-EVENING RECITATION ON PHYSIOLOGICAL RESPONSE TO ANXIETY LEVEL IN ICU PATIENTS

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ABSTRACT

ICU patients often experience anxiety due to critical conditions, unfamiliar environments, and invasive medical procedures. Anxiety can lead to physiological changes such as increased blood pressure, heart rate, and respiratory rate. This study aimed to analyze the effect of the Al-Ma'tsurat morning-evening recitation on the physiological response to anxiety in ICU patients. A pre-experimental design with a pretest-posttest approach without a control group was used. The sample consisted of 42 ICU patients at RSI Sakinah Mojokerto who met the inclusion criteria, selected through purposive sampling. Data were collected by measuring blood pressure, heart rate, and respiratory rate before and after the intervention. Paired t-test and Wilcoxon test results showed no significant difference in systolic and diastolic blood pressure or heart rate ($p > 0.05$). However, a significant difference was found in respiratory rate ($p = 0.015$) after listening to the Al-Ma'tsurat recitation. The reduction in respiratory rate indicates a physiological relaxation response due to spiritual intervention. Although most parameters were not statistically significant, dzikir therapy remains potentially effective as a non-pharmacological holistic intervention for ICU patients.

Keywords

Al-Ma'tsurat, ICU, anxiety, physiological response, dzikir

INTRODUCTION

ICU patients are frequently in critical medical conditions that require close monitoring and intensive care. Besides physiological disturbances caused by the underlying disease, patients often experience significant psychological stress. Anxiety in ICU patients can activate the sympathetic nervous system, leading to increased blood pressure, heart rate, and

respiratory rate. If left unmanaged, this anxiety can worsen the patient's condition and prolong hospitalization. Spiritual approaches such as dzikir are promising non-pharmacological alternatives. Al-Ma'tsurat is a compilation of morning and evening prayers taught by the Prophet Muhammad (PBUH), believed to calm the soul and reduce the physiological responses to anxiety. This study aimed to determine the effect of Al-Ma'tsurat recitation on the physiological response to anxiety levels in ICU patients.

METHOD

(metode ditulis populasi dan sampel serta cara pengambilan dan uji statistic)

This study used a pre-experimental design with a pretest-posttest approach without a control group. It was conducted in the ICU room of RSI Sakinah Mojokerto from August to October 2024. The population included all adult ICU patients, with inclusion criteria: Muslim and approved participation by their family. A total of 42 participants were selected using purposive sampling. The intervention involved playing the Al-Ma'tsurat recitation for 25–30 minutes. The dependent variables were physiological responses to anxiety, measured through blood pressure, heart rate, and respiratory rate. Data collection tools included a digital sphygmomanometer and observation sheets. Data analysis used paired t-test for normally distributed data and Wilcoxon test for non-normal data.

RESULTS

A total of 42 ICU patients participated in this study, with 50% male and 50% female. Most were over 65 years old (45.24%). The average systolic blood pressure before the intervention was 141.1 mmHg, decreasing to 139.88 mmHg after the intervention. Heart rate decreased from 86.79 bpm to 85.86 bpm, and respiratory rate decreased from 22.31 breaths/minute to 19.26 breaths/minute after the intervention.

Statistical test results:

- **Systolic blood pressure** and **heart rate**: no significant differences ($p = 0.403$ and $p = 0.376$).
- **Diastolic blood pressure**: not significant ($p = 0.266$).
- **Respiratory rate**: significant difference found ($p = 0.015$).

DISCUSSION

This study demonstrated that after listening to the Al-Ma'tsurat morning-evening recitation, there was a decrease in the average systolic and diastolic blood pressure, heart rate, and respiratory rate in ICU patients. Although only the respiratory rate showed a statistically significant change ($p = 0.015$), the other parameters also showed a positive trend in improving physiological responses related to anxiety.

Dzikir is a form of spiritual activity involving rhythmic and structured repetition of certain phrases. In this context, it functions similarly to meditation or relaxation, especially when listened to in a quiet and mindful setting. Psychologically, dzikir calms the mind, and physiologically, it helps reduce the activity of the sympathetic nervous system, which is typically heightened during stress or anxiety.

In anxious states, the sympathetic nervous system becomes activated, resulting in vasoconstriction, elevated blood pressure, increased heart rate (tachycardia), and rapid breathing (hyperventilation). Conversely, listening to dzikir stimulates the parasympathetic nervous system, which lowers blood

pressure and heart rate, regulates breathing, and reduces stress hormones such as adrenaline and cortisol. This parasympathetic activation plays a key role in restoring physiological balance and calmness.

Biochemically, spiritual practices like dzikir can influence several markers. Cortisol, a primary stress hormone released by the adrenal cortex, tends to decrease after dzikir, contributing to reduced blood pressure and a slower breathing rate. Dzikir also suppresses the production of catecholamines like adrenaline and noradrenaline, which are involved in the "fight or flight" response. Additionally, dzikir may increase the release of endorphins and serotonin-neurotransmitters known for their calming and mood-enhancing effects.

The significant decrease in respiratory rate, from 22.31 to 19.26 breaths per minute, is a strong indicator of parasympathetic activation. Slower and deeper breathing reflects a more relaxed and calm physiological state. This finding aligns with Stephen Porges' polyvagal theory, which explains how activation of the ventral branch of the vagus nerve can reduce cardiac and respiratory activity as part of the body's recovery and self-regulation mechanisms.

However, the lack of significant changes in blood pressure and heart rate may be attributed to several factors. Responses to spiritual therapy can vary greatly depending on clinical conditions, consciousness levels, and individual medical histories. A more prolonged or repeated intervention may be needed to produce significant effects on these parameters. Furthermore, ICU patients are often administered medications such as vasopressors, sedatives, or beta blockers that can obscure the impact of non-pharmacological interventions like dzikir.

CONCLUSIONS

Al-Ma'tsurat morning-evening recitation affects the physiological response to anxiety in ICU patients, particularly in respiratory rate, which showed a significant decrease after the intervention. Although changes in blood pressure and heart rate were not statistically significant, this spiritual intervention remains a promising component of holistic ICU care.

REFERENCES

American Psychological Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).

Bai, X., et al. (2020). The effect of anxiety on vital signs in critically ill patients. *Journal of Intensive Care Medicine*, 35(7), 554–560.

Darmadi, S., & Armiyati, Y. (2019). Murottal and classical music therapy reducing pre cardiac catheterization anxiety. *South East Asia Nursing Research*, 1(2).

Flaatten, H. et al. (2017). Anxiety in ICU patients: A literature review. *Journal of Critical Care*, 41, 70–74.

Goulden, R., et al. (2019). Intensive care unit management of severe illness. *Critical Care Medicine*, 47(6), 1045–1052.

Kiely, F. M., et al. (2019). Anxiety and its physiological impact on ICU patients: A systematic review. *Intensive and Critical Care Nursing*, 51, 22–30.

McEwen, B. S. (2007). Physiology and neurobiology of stress and adaptation: Central role of the brain. *Physiological Reviews*, 87(3), 873–904.

Purnamasari, A. (2018). The effect of religious interventions on reducing

anxiety in ICU patients. *Jurnal Psikologi Klinis*, 3(1), 55–60.

Zahrofi, D. N., Maliya, A., & Listyorini, D. (2014). The effect of murottal Al-Qur'an therapy on anxiety levels in hemodialysis patients at PKU Muhammadiyah Hospital Surakarta. *Thesis*, Universitas Muhammadiyah Surakarta.