

Research Article

Effectiveness of Dhikr Istighfar in Reducing OSCE-Related Anxiety among Medical Students

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ABSTRACT

Background: The prevalence of anxiety among medical students is still relatively high, including in Objective Structured Clinical Examinations (OSCE). This anxiety will have an impact on students' academic achievement. Relaxation techniques can be used to overcome anxiety incidents, and dhikr is a form of relaxation activity. **Purposes:** This research aimed to determine the decrease in student anxiety about the OSCE exam by dhikr istighfar. **Methods:** The method used in this research was quasi-experimental research with a pre-posttest and control group design. The research subjects were students of the Muhammadiyah University Palembang first-semester medical study program who would undergo the OSCE block exam and were willing to participate in this research through informed consent. **Result:** Research data analysis showed that comparison between pretest and posttest for each group also showed significant differences ($P < 0.001$). It means that dhikr istighfar is significantly effective in reducing students' anxiety, especially during OSCE. **Conclusion:** In conclusion, Dhikr Istighfar may be used as an anxiety management tool in medical education to overcome the anxiety level of students who will take exams, especially OSCE.

Keywords: anxiety, dhikr istighfar, Objective Structured Clinical Examinations

INTRODUCTION

Anxiety is a normal condition experienced by every human being and is considered part of everyday life. Anxiety is abnormal if excessive responses interfere with daily normal activities (1). Anxiety is the biggest mental disorder, it is estimated that up to 33.7% of the worldwide population suffers from anxiety (2), and as many as 44% of teenagers often feel anxious (3). The prevalence of anxiety among medical students is still quite high, ranging from 30-70% (4).

The cause of anxiety in medical students can be sourced from their academic activities, one of which can be caused by a stressor in the form of an exam (4). The exams that medical students usually face are in the form of Multiple Choice Question (MCQ) Examinations, Objective Structured Practical Examinations (OSPE), and Objective Structured Clinical Examinations (OSCE). Students who face the OSCE experience higher anxiety than other exams because of the OSCE aspects of cognitive, psychomotor, and professional behavior, so

there is quite a lot of material to be studied and there is a need for integration between theory, skills, and clinical reasoning. In addition, OSCE examiners who directly observe what participants are doing, students' unpreparedness to take part in OSCE, and the OSCE mechanism make OSCE the exam with the highest level of anxiety (5).

Anxiety can be treated with relaxation techniques, including autogenic relaxation. Autogenic relaxation is the activity of repeating positive statements to yourself. One such activity is dhikr (6).

Dhikr means remembering God. In Islam, dhikr is an awareness of a creature in the relation that unites his entire life with the Creator, Allah SWT. People chant God's name repeatedly in dhikr, making them feel peaceful and relaxed. Thus, dhikr has a therapeutic aspect (7). In the book *Miftahu Al-Falah Wa Mishbabu Al-Arwah* by Ibnu A'thaillah Assakandari, there are at least 68 benefits that will be obtained by people who perform dhikr, including eliminating anxiety, and depression. By reciting the dhikr sentences, our hearts will become calm, as Allah SWT says in the Qur'an, Surah Ar-Ra'd verse 28, "*Those who believe and their hearts become calm by remembering Allah, their hearts become calm*" (8).

Previous research shows that the anxiety level of students who will face the OSCE exam can be reduced by reading surahs Al-Fatihah, Al-Ikhlash, Al-Falaq, and An-Nas (9). However, there has not been much research using dhikr to overcome anxiety in students. Istighfar is one of the dhikr sentences that is known to reduce beta wave activity which indicates a decrease in a person's anxiety level (10,11). Based on this description, we are interested in researching the effect of reciting the istighfar dhikr sentence on the anxiety level of medical faculty students in facing the OSCE exam.

METHODS

This research is quasi-experimental with a pre-posttest and a control group design. The research subjects were 64 Muhammadiyah University Palembang first-semester medical study program students who would undergo the OSCE block exam and were willing to participate in this research through informed consent. The sample was obtained through simple random sampling based on student attendance numbers (even-control, odd-treatment). The data was taken one hour before the OSCE exam at the medical skill laboratory. The research sample was divided into two groups, each consisting of 32 people. The first group recited dhikr istighfar (Group 1), and the second group did not recite dhikr istighfar (Group 2). The subject's anxiety level was measured using the Indonesian version of the Zung Self-rating Anxiety Scale (SAS) (12). The level of anxiety is classified into mild anxiety (score 20-44), moderate anxiety (score 45-59), severe anxiety (score 60-74) and panic (score 75-80) (13). One hour before the OSCE exam, both groups completed the Anxiety scale self-rating questionnaire (pretest). After filling out the questionnaire, the first group was asked to recite istighfar for 15 minutes in a low voice to achieve relaxation and reduce anxiety. Then, both groups again filled out the Anxiety scale self-rating questionnaire (posttest). Statistical analysis was done on both groups' pretest and posttest scores using SPSS. 17. The T-independent test was used to compare pretest and posttest scores between groups and the T-dependent test was used to compare the pretest and posttest scores of each group, with a confidence level of 95%. Ethical approval for this study

was obtained from the ethics committee of the Faculty of Medicine, University of Muhammadiyah Palembang (No. 086/EC/KBHKI/FK-UMP/XI/2022).

RESULTS

This study looked at the effect of dhikr recitation on improving anxiety among students facing OSCE. Dhikr istighfar is a form of dhikr that is often read by the prophet Muhammad SAW. It contains the meaning of apologizing but can also eliminate sadness and anxiety. In the current study, the baseline anxiety scores did not differ significantly between the two groups, which indicates that they were comparable.

The results of research from 64 subjects (32 group 1 and 32 group 2) showed that the majority of group 1 and group 2 experienced moderate anxiety at first (96.9% each). After 15 minutes of reciting the dhikr of istighfar, the entire group 1 was in moderate anxiety (100%) while group 2 who did not recite the dhikr of istighfar was in moderate (68.8%) and severe anxiety (31.2%). Analysis of research data showed that there was no difference in the initial level of anxiety between group 1 and group 2 ($P = 0.065$). It means that both group are in the anxiety condition before OSCE. However, the comparison of the posttest between group 1 and group 2 showed significant differences ($P < 0.001$) (Table 1). Comparison between pretest and posttest for each group also showed significant differences ($P < 0.001$) (Table. 2).

Table 1. Anxiety levels of both groups

Anxiety level	Group 1 (n = 32)	Group 2 (n = 32)	p
Pretest, (μ(SD))	51.78 (3.108)	53.47 (4.016)	0.065
Mild anxiety, (n(%))	0	0	
Moderate anxiety, (n(%))	31(96.9)	31 (96.9)	
Severe anxiety, (n(%))	1(3.1)	1 (3.1)	
Posttest (μ(SD))	33.47 (4.792)	58.59 (3.766)	<0.001
Mild anxiety, (n(%))	32(100)	0	
Moderate anxiety, (n(%))	0	22 (68.8)	
Severe anxiety, (n(%))	0	10 (31.2)	

Table 2. Results of pretest and posttest comparative statistical analysis of the two groups

	Pretest	Posttest	p
Group 1 (μ (SD))	51.78 (3.108)	33.47 (4.792)	<0.001
Group 2 (μ (SD))	53.47 (4.016)	58.59 (3.766)	<0.001

DISCUSSION

The results of this study indicate that first-semester students who will take the OSCE experience moderate anxiety. These results are in line with previous research, which showed that the majority of students who took the OSCE experienced anxiety (14–16). First-year medical students require adjustments in various aspects, such as adaptation to a new environment and an education system with various forms of learning and evaluation methods. This pressure can cause anxiety (17).

Students consider OSCE an exam that causes more stress than other types of exams. They fear that anxiety will weaken them and interfere with their ability to face the exam if it is not managed well (14). The anxiety felt by students during the OSCE can affect implementation

performance and graduation rates because a person will experience distortions in information processing. This can interfere with concentrating and reducing memory (15).

It was reported that there were differences in anxiety levels between the group that recited the dhikr of Istighfar (group 1) and the group that did not recite it (group 2). The level of anxiety in the group that recited Istighfar dhikr experienced a significant decrease, while in the group that did not recite Istighfar dhikr experienced a significant increase. This means that reciting the dhikr of Istighfar can reduce a person's anxiety level.

Various previous studies have stated that "approaching oneself to God" through multiple methods, such as praying and listening to the Quran sound before the test, were used to reduce anxiety (18–20). Dhikr is an effort to get closer to God, Allah SWT (21). Dhikr affects the body's neurotransmitters, increases parasympathetic nerve activity, and suppresses sympathetic nerve activity to achieve relaxation and reduce anxiety (20). Dhikr is proven to present alpha waves as a stimulus to neurotransmitters in the human brain to produce endorphins (22), which work on the limbic system to reduce anxiety levels (23). However, the direct physiological effect of dhikr in reducing anxiety still needs to be further proven.

Previous studies showed that vagus nerve stimulation, part of the parasympathetic branch of the peripheral nervous system, may reduce anxiety (24). According to the polyvagal theory, sympathetic activity is thought to be related to a stress response that triggers hypervigilance and anxiety. Conversely, parasympathetic activity in a safe environment would be linked to social cognition and emotion regulation to promote efficient cooperation that increases the chances of survival (25).

CONCLUSION

In conclusion, Dhikr Istighfar may be implemented in medical education to reduce the anxiety level of students who will take exams, especially the OSCE, so that the students may achieve good academic achievement.

ACKNOWLEDGMENTS

Authors would like to thank to Faculty of Medicine Universitas Muhammadiyah Palembang for supporting all of processes during this research.

CONFLICT OF INTEREST

All authors have equal contributions to this paper and no conflicts of interest.

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