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Research Article

The Influence of Dhikr on Anxiety in Acute Coronary Syndrome (ACS) Patients at Dr. Chasbullah Abdulmadjid Hospital, Bekasi City

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Abstract

Aims: This study was to determine the effect of dhikr on anxiety in ACS patients at Dr. Chasbullah Abdulmadjid General Hospital, Bekasi City.

Methods: The research method used pre- and post-quasy experiments in the control group and the intervention group. This study used the HARS questionnaire and family support for 76 respondents.

Result: Data analysis using multiple logistic regression tests The results showed that the proportion in the control group with mild-moderate anxiety was 31.6% and severe anxiety was 18.4%; the proportion in the intervention group with mild-moderate anxiety was 46.1% and severe anxiety was 3.9%. Dhikr (p = 0.006) and history of heart disease (p = 0.023) significantly influence anxiety after being controlled by age (p = 0.244) (p = 0.001 omnimbus). The dominant factor that influences anxiety is dhikr (OR 10.674).

Conclusions : Dhikr is an act of remembering Allah that can be used to reduce anxiety in SKA patients. This can be done independently by reading istigfar, tasbih, hauqalah, and takbir for 15 minutes in the morning and evening. Therefore, nursing services using dhikr as an effort to reduce anxiety in ACS patients.

Keywords:
Acute Coronary Syndrome, Anxiety, Dhikr

INTRODUCTION

Degenerative diseases, such as non-communicable diseases, accounted for 71% of deaths in the world in 2016 and will increase in 2021 to 74% (1). The disease with the highest ranking is heart disease; its incidence in the United States (2019) occurs mostly in the elderly; in Southeast Asia (2) and in Indonesia (2019) (3). West Java is ranked 10th, and one of them is the city of Bekasi, namely Dr. Chasbullah Abdulmadjid Hospital, Bekasi City. Heart disease is ranked first, namely ACS. The incidence of ACS in the ordinary cardiac ward was 61.2% and in the intensive care unit was 66.1% (4).

ACS consists of STEMI, NSTEMI, and UAP (5), which are heart diseases that occur because the heart muscle lacks oxygen nutrition due to ruptured coronary artery atheroma plaques (6). ACS occurs due to biochemical and mechanical changes resulting from strenuous physical activity and emotional loads that can stimulate increased norepineprine, epineprine, and gamma-aminobutyric acid (GABA) so that

the cardiovascular system is disrupted, physiologically stimulating, and feelings of tension, unpleasantness, or anxiety. These things can aggravate ACS (7).

The need for good management, namely with a holistic approach, in both aspects of medical services, pharmacy, and nursing care (8). Nursing care according to standards includes biochemical, physical, and psychological factors. One part of nursing actions is complementary actions such as dhikr (9). Dhikr means remembering and saying tayyibah words to Allah orally (10). Dhikr is a relaxation technique that stimulates endorphins, dopamine, and oxytocin (11), which work to provide a feeling of calm and reduce anxiety, lowering heart rate, lowering blood pressure, smoothing blood vessels, and increasing oxygen in the body (12).

According to Somana, dhikr and murottal Al-Quran can reduce anxiety, with moderate anxiety at 76.9% and mild anxiety at 69.2%. According to Sulistyawati (13), there was a statistically significant difference in the anxiety level of patients in the intervention group and the control group (p = 0.001), indicating the effect of dhikr in reducing anxiety. Dhikr makes people feel calm and optimistic, increases immunity, accepts the conditions that happen to them, and believes that what happens is because of Allah's will (14). The purpose of this study was to determine the effect of dhikr on anxiety in ACS patients.

METHODS

This research design uses a quasi-experiment with pre- and post-intervention using two groups, namely the control group and the intervention group. The population in this study were ACS patients in the cardiac care room. Sample calculations used the Lameshow formula with a total sample of 76 respondents. The sampling technique uses the purposive sampling technique. The inclusion criteria for this study were SKA sufferers who experienced anxiety and were Muslims. The exclusion criteria are ACS sufferers who are in an emergency condition and are currently taking mental medication. The instrument used is the HARS anxiety instrument in Indonesian, which has been translated and tested for reliability and validity by Ramdan (2019) (15). The HARS instrument contains 14 statements with a score of 0-4. Researchers divided into two score categories, namely a score of <25 for mild-moderate anxiety and ≥25 for severe anxiety, according to Rusanty (2016) (16). The research process will take place in April–May 2023 after passing the campus ethical review number 0259/F.9-UMJ/III/2023 on March 9, 2023, and the site ethical review number 010/KEPK/RSCAM/III/2023 on March 27, 2023, and receiving research permission on March 31, 2023. Researchers selected respondents in cardiac care rooms, both regular wards and intensive care rooms, and specialized in ACS. Instruments are distributed directly to respondents, who fill them in themselves without intervention from anyone. The intervention group was given dhikr in the form of leaflets with the reading of istighfar, tasbih, hauqalah, and takbir. Univariate data analysis uses the proportion test, bivariate uses the q square test, and multivariate uses the multiple logistic regression test.

RESULTS

Table 1.
Distribution of Respondent Characteristics (n=76)

| No. | Variable | Category | Group | | | | Total | |
| | | | Control | | Intervention | | | |
			Total	Percentage	Total	Percentage	Total	%
1	Age	≤60 y.o	22	28,9	20	26,3	42	55,3
		>60 y.o	16	21,1	18	23,7	34	44,7
2	Gender	Women	20	26,3	19	25	39	51,3
		Man	18	23,7	19	25	37	48,7
3	Education	Basic (SD dan SMP)	27	35,5	27	35,5	54	71,1
		Middle (SMA) – College)	11	14,5	11	14,5	22	23,9
4	History of Heart Disease	Never	18	23,7	29	38,2	47	61,8
		Ever Been	20	26,3	9	11,8	29	38,2
5	Information	Not	29	38,2	26	34,2	55	72,4
		Yes	9	11,8	12	15,8	21	27,6
6	Family support	Not Good	19	25	22	28,9	41	53,9
		Good	19	25	16	21,1	35	46,1
7	Anxiety Pre	Heavy	21	27,6	15	19,7	36	47,4
		Mild-Moderate	17	22,4	23	30,3	40	52,6
8	Anxiety Post		14	18,4	3	3.9	17	22,4
		Heavy Mild-Moderate	24	31,6	35	46,1	59	77,6

Table 1 shows that the highest proportion of anxiety is mild-moderate anxiety in as many as 59 people (77.6%).

Table 2.
The Effect of Dhikr on Anxiety (n=76)

| Variable | | Anxiety | | Total | P Value | OR (95%CI) |
		Heavy	Mild- Moderate			
Dhikr	Control	14	24	38	0,006	6,806
	Intervention	3	35	38		1,763;26,273

Table 2 shows that Dhikr has an effect on anxiety of 0.006 (<α 0.05).

Table 3.
Effect of Age, Gender, Education, History of Heart Disease, Information, and Family Support on Anxiety (n = 76)

Variable		Anxiety				Total	P Value	OR (95%CI)
		Heavy		Mild- Moderate				
		Control	Intervention	Control	Intervention			
Age	≤60 y.o	7	5	17	13	42	0,244	2,320
	>60 y.o	3	2	15	14	34		0,726;7,411
Gender	Women	5	3	14	17	39	0,902	0,803
	Man	7	2	14	14	37		0,272;2,366
Education	Basic (SD&SM)	10	3	20	21	54	0,764	1,427
	Middle (SMA) – Collage (PT)	2	2	9	9	22		0,409;4,981
History of Heart Disease	Never	4	2	25	16	47	0,024	0,239
	Ever Been	8	3	11	7	29		0,077;0,748
Information	Not	8	3	32	12	55	0,539	0,625
	Yes	4	2	5	10	21		0,197;1,983
Family Support	Not Good	6	3	16	16	41	1,000	0,949
	Good	4	4	17	10	35		0,322;2,799

Table 3 shows that age has no effect on anxiety 0.244 (>α 0.05), gender has no effect on anxiety 0.902 (>α 0.05), education has no effect on anxiety 0.764 (>α 0.05), history of heart disease has an effect on anxiety 0.023 (<α 0.05), information has no effect on anxiety 0.539 (>α 0.05), and family support has no effect on anxiety 1.000 (>α 0.05).

Table 4.
Multivariate Candidate Selection Variables: Age, Gender, Education, History of Heart Disease, Information, Family Support, and Dhikr (n = 76)

Variabel	P Value	Keterangan
Age	0,244	Candidate
Gender	0,902	No candidate
Education	0,764	No candidate
History of Heart	0,023	Candidate
Disease	0,539	No candidate
Information	1,000	No candidate
Family Support	0,006	Candidate
Dhikr		

The variables included in the selection of candidates for the multivariate test are age, history of heart disease and dhikr.

Table 5.
Preliminary Modeling Multivariate Logistic Regression Analysis of Anxiety

Variable	Model 0	Model 1	Model 2	Change OR (%)
	P Value			
Age	0,244	0,186	-	
History of Heart Disease	0,023	0,003	0,004	31,9
Dhikr	0,006	0,004	0,002	0,2

p value= 0,001

Table 5 shows that in the early stages of modeling, namely age (0.244), history of heart disease (0.023), and dhikr (0.006), The first model was carried out by multiple logistic regression tests and obtained a p value of 0.186 for age, 0.003 for history of heart disease, and 0.004 for dhikr. The second model excludes age, and there is a change in OR > 10%, so age is included back into the model.

Table 6.
Final Results Anxiety Multivariate Logistic Regression Analysis

Variable	Sig	OR	95% CI	
			Lower	Upper
Age*	0,186	2,840	0,605	13,332
History of	0,003	0,098	0,021	0,464
Heart Disease	0,004	10,674	2,154	52,901
Dhikr			.	

*Factor counfonding *p value*= 0,001

In the results of the final analysis, dhikr became the dominant factor (OR 10.674) after controlling for a history of heart disease (OR 0.098) and age (OR 2.840).

DISCUSSION

Dhikr is an activity of remembering Allah whose implementation is the most flexible in every situation by saying tayyibah sentences, which can provide peace of mind [17]. Anxiety is a feeling of discomfort, fear, and emotion. SKA sufferers feel anxiety because they are afraid of death. This requires an act of dhikr, because by dhikr there are endorphine hormones that can create an atmosphere of calm and comfort [18].

Most of the ACS respondents experienced anxiety at the age of ≤60 years; according to Vellyana, coronary heart disease had the most anxiety attacks at the age of 55 years [19]. Anxiety experienced at a young age is related to cognitive behavioral theory; mindset determines one's coping and how to adapt and respond to anxiety so that it becomes a maladaptive response. The results of the study showed that there was no effect of age on anxiety (p = > α 0.05), in line with Wahyuni's research. ACS sufferers feel anxious but have no impact on their hemodynamics; this is due to the effects of the drugs given by doctors so that the respondent's hemodynamics become stable [20].

The majority of ACS respondents experienced anxiety, according to Vellyana (19). Hormonal factors were a factor in ACS. The hormone estrogen can increase and decrease. Elevated estrogen can affect appetite, eating, physique, and mood of women. There is no effect of gender on anxiety ($p < \alpha 0.05$). This is not in line with Vellyana, who stated that women are two times more at risk of experiencing anxiety than men. Men can also be sensitive when it comes to their physical health.

Most of the SKA respondents experienced anxiety in basic education (SD and SMP). A low level of education has limited knowledge about the disease, thus increasing concern about the disease, in line with Hastuti's research (21). Lack of attention to a healthy lifestyle tends to lead people to do something that feels good without paying attention to the effects or impacts caused by an unhealthy lifestyle, which can trigger an increase in disease (22). There is no effect of education on anxiety ($p = \alpha 0.05$). Highly educated people experience anxiety because they know the life-threatening effects of heart disease.

Most of the ACS respondents had never had heart disease or were the first to suffer from it. Experience is something that has been experienced, lived, or felt, which is then stored in memory. Skills in using constructive coping can reduce anxiety levels. In line with Hastuti, who stated that there were more respondents who had never undergone cardiac catheterization than those who had had cardiac catheterization (21). The results of the study showed that there was an effect of a history of heart disease on anxiety ($p = <\alpha 0.05$). Heart disease tends to carry a genetic trait. People who do not have hereditary heart disease but have heart disease do so because they have an unhealthy lifestyle, eat random food, and lack exercise.

Most of the SKA respondents did not receive information. Lack of access to information or media is the reason sufferers are late to see a doctor. There is an influence between the lack of access to information or media and delays in the initial examination of heart disease. Lack of access to information about heart disease causes an increase in death rates every year (23). The results of the study showed no effect of disease information on anxiety ($p = > \alpha 0.05$). The information provided by officers to heart sufferers when the patient is having a heart attack makes the concentration unfocused, and the patient does not understand.

Most of the SKA respondents did not get family support. Heart disease and family support have a strong influence. The inability of heart disease patients to actualize themselves optimally without large family support from their families can worsen their mental and psychological conditions (24). The results of the researchers showed that there was no effect of family support on anxiety ($p = > \alpha 0.05$). There is concern for the family if the information conveyed makes the respondent even more anxious. Not in line with Arabta's study, there was an effect of family support on anxiety levels in patients with coronary heart disease ($p = 0.018$).

Most of the ACS respondents experienced mild to moderate anxiety. Anxiety is considered a long-term, future-oriented response that broadly focuses on threats of different uses. In accordance with Listiana's research, which states that moderate anxiety is more than severe anxiety (25), Giving dhikr has a large influence on the anxiety experienced by sufferers of ACS. With dhikr, the heart becomes calm and feels that Allah is always present in every step of life. The results of the research show that there is an effect of dhikr on anxiety ($p = <\alpha 0.05$). The interventions of dzikir istighfar, tasbih, hauqalah, and takbir have a big influence on anxiety.

Dhikr has a dominant influence on anxiety. The control group that did not receive the dhikr intervention experienced more anxiety than the intervention group that received the dhikr. A history of heart disease is an early experience that can

determine a person's mental condition, where emotional factors are often felt, such as fear of death. Age affects a person's emotional maturity, which has an impact on a person's coping mechanisms, and age correlates with experience, knowledge, and understanding of a disease or event. Dhikr has a positive effect, namely that it can reduce anxiety. The theory above follows the results of this research: after receiving dhikr, the anxiety of SKA patients decreased, and some patients even no longer felt anxious. This happens because, with dhikr, a biological process occurs where the neurotransmitters endorphin, oxytocin, and dopamine increase parasympathetic nerves, which can reduce anxiety, and the response obtained is an adaptive response.

CONCLUSION

Most of the respondents experienced anxiety because it was the first time they had heart disease and had no experience in their life. Experience matters. Dhikr can reduce anxiety; by doing so, the heart becomes calm. By nature, humans are spiritual beings, because if they do not have spirituality, their hearts become empty. The implication is that nurses who work in the heart care room need to provide moral support to SKA patients by doing dhikr, especially those who are Muslim, and those who are of other religions can be encouraged to pray according to their beliefs. Educational institutions need to provide knowledge related to psychological conditions. Future researchers can use this research as reference material.

REFERENCES

1. WHO. World Health Statistics [Internet]. Vol. 2, Photosynthetica. 2018. 1–13 p. Available from: http://link.springer.com/978-3-319-76887-8%0Ahttp://link.springer.com/10.1007/978-3-319-93594-2%0Ahttp://dx.doi.org/10.1016/B978-0-12-409517-5.00007-3%0Ahttp://dx.doi.org/10.1016/j.jff.2015.06.018%0Ahttp://dx.doi.org/10.1038/s41559-019-0877-3%0Aht

2. WHO. WHO list of priority medical devices for management of cardiovascular diseases and diabetes. WHO Med device Tech Ser [Internet]. 2021;1–2. Available from: https://apps.who.int/iris/handle/10665/341967%0Afiles/267/9789240027978-eng.pdf

3. Tichenor M, Sridhar D. The global burden of disease study institute for health metrics and evaluation. Wellcome Open Res. 2020;4(3):1–9.

4. Medrek. ACS di Ruang Tulip dan ICCU. 2021;

5. Amsterdam EA, Wenger NK, Brindis RG, Casey DE, Ganiats TG, Holmes DR, et al. 2014 AHA/acc guideline for the management of patients with Non-ST-Elevation acute coronary syndromes: A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol. 2014;64(24):e139–228.

6. Leonard S. Lilly. Pathophysiology of Heart Disease: An Introduction to Cardiovascular MedicineNo Title. Int Ed. 2022;Lippincott.

7. Perwataningrum CY, Prabandari YS, Sulistyarini RI. Pengaruh Terapi Relaksasi Zikir Terhadap Penurunan Tingkat Kecemasan Pada Penderita Dispepsia. J Interv Psikol. 2016;8(2):147–64.

8. PERKI. Pedoman Tata Laksana Sindrome Koroner Akut. Vol. 184, Medical Journal of Australia. 2018. p. 516–25.

9. PPNI. SIKI (Standar Intervensi Keperawatan Indonesia). 2018;

10. Rahmadi Wibowo Suwarno Lc, M.A, M.Hum dkk. Buku Saku Tuntunan Doa dan Dzikir. 2021;1–49.

11. Fadli R. Jenis-Jenis Hormon Bahagia. 2021;23.

12. Muvid MB. Dzikir dalam Tarekat sebagai Metode Pembentukan Akhlak Perspektif KH. Albazi Nawawi dan KH. Mohammad Nizam Ash-Shafa. 2018;120.

13. Sulistyawati R, Probosuseno, Setiyarini S. Dhikr Therapy for Reducing Anxiety in Cancer Patients. Asia-Pacific J Oncol Nurs [Internet]. 2019;6(4):411–6. Available from: http://dx.doi.org/10.4103/apjon.apjon_33_19

14. Somana A, Trisnawati H. Pengaruh Terapi Dzikir Dan Murottal Al-Quran Terhadap Penurunan Tingkat Kecemasan Pada Pasien Jantung Koroner Yang Akan Dilakukan Kateterisasi Jantung. J Kesehat Budi Luhur [Internet]. 2019;12(243):1–8. Available from: http://jurnal.stikesbudiluhurcimahi.ac.id/index.php/jkbl/article/view/123

15. Ramdan IM. Reliability and Validity Test of the Indonesian Version of the Hamilton Anxiety Rating Scale (HAM-A) to Measure Work-related Stress in Nursing. J Ners. 2019;14(1):33.

16. Rusanty NA, Darliana D. Kecemasan dengan Kualitas Hidup Pasien Sindrom Koroner Akut di ACEH. 2016;1–8.

17. Hudiyawati D, Trisna Aji P, Syafriati A, Jumaiyah W, Tyawarman A. Pengaruh Terapi Murotal Al-Qur'an Terhadap Kecemasan Pasien Dengan Prosedur Percutaneous Coronary Intervention. J Ber Ilmu Keperawatan. 2022;15(1):8–14.

18. Bayu saputra, Sofiani Y, Irawati D. The effect bibliotheraphy on depression and anxiety level of breast cancer patient at Arifin Achmad Regional General Hospital of Riau Province. J Kesehat Komunitas. 2019;5(3):248–53.

19. Vellyana D, Lestari A, Rahmawati A. Faktor-Faktor yang Berhubungan dengan Tingkat Kecemasan pada Pasien Preoperative di RS Mitra Husada Pringsewu. J Kesehat. 2017;8(1):108.

20. Wahyuni PW, Rosjidi CH, Nurhidayat S. Identifikasi Usia Sebagai Faktor Risiko Penyakit Jantung kororner Pada Perempuan Di Poli Jantung RSUD dr Harjono Ponorogo. Heal Sci J. 2019;3(1):115.

21. Hastuti YD, Mulyani ED. Kecemasan Pasien dengan Penyakit Jantung Koroner Paska Percutaneous Coronary Intervention. J Perawat Indones. 2019;3(3):167.

22. Hariawan H, Fathoni A, Purnamawati D. Hubungan Gaya Hidup (Pola Makan dan Aktivitas Fisik) Dengan Kejadian Diabetes Melitus di Rumah Sakit Umum Provinsi NTB. J Keperawatan Terpadu (Integrated Nurs Journal). 2019;1(1):1.

23. Bianto MA, Kusrini K, Sudarmawan S. Perancangan Sistem Klasifikasi Penyakit Jantung Mengunakan Naïve Bayes. Creat Inf Technol J. 2020;6(1):75.

24. Widyastuti P. Hubungan Dukungan Keluarga Dan Penerimaan Diri Dengan Tingkat Kecemasan Pada Pasien Penyakit Jantung Koroner (Pjk) Di Poli Jantung Rumah Sakit Biomedika Mataram. PrimA J Ilm Ilmu Kesehat. 2019;5(1):81–6.

25. Listiana D, H.S.Effendi N. Faktor-faktor Yang Berhubungan Dengan Tingkat Kecemasan Pre Kateterisasi Pasien SKA. 2019;61(1):651.