

DHIKR AS NURSING INTERVENTION TO REDUCE STRESS IN HEALTH SCIENCE STUDENTS

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ABSTRACT

Introduction: Study showed that 53% of health sciences students experience stress during the learning process. There has never been any previous research that focused on measuring the effect of Dhikr as a part of independent nursing intervention: Spiritual Support to reduce stress in health sciences students. Aim of this study was to measure stress decreased in health sciences students who were treated using Dhikr. **Methods:** This research used quasi experimental with pre and post test nonequivalent control group design. We chose Moslem students in health sciences faculty and used quota sampling technique before divided them into two groups: 20 respondents in each of control and intervention groups. Dhikr was given to the treatment group for two sessions, while the control group did not get any therapy. Paired T-Test was used to see stress scores differences in pre and post test of each group, while Mann Whitney test was used to see differences in stress scores deviation between both group. **Results:** The results showed that Dhikr could decreased stress intervention group (p value 0.000). Stress score mean in pre test was 18.60, while in post test was 11.10 or decreased by 7.5 points. Stress score mean in the control group increased by 3.1 points (p value 0.024). **Conclusions:** We conclude that Dhikr therapy can be part of independent nursing intervention: Spiritual Support to health sciences students in Indonesia who are predominantly Moslem.

Keywords: dhikr; health; sciences students stress

INTRODUCTION

Undergraduate students are vulnerable to stress. Undergraduate health students (for example: nursing students, medical students etc) are proven to experience greater stress than society in general. Sixty three point eight percent (63.8%) of undergraduate students in health students experience stress during the learning process. The highest prevalence is in the first year which is as much as 78.7%. Whereas in the second year the prevalence was 70.8%, the third year was 68%, the fourth year was 43.2%, and then the fifth year was 48.3%. Stressors reported by these students in general are worries about the future, interpersonal conflict and low self-esteem. Stress causes not only physical complaints but also experience emotional and social relationships disturbances and decrease in academic grade. (Abdulghani, Alkanhal, Mahmoud, Ponnampereuma, & Alfariis, 2011; Bamuhair et al., 2015; Saravanan & Wilks, 2014).

Religiosity has been proven to be one of the coping strategies to reduce stress (Achour, Grine, Mohd Nor, & MohdYusoff, 2015). In addition, psychiatric nurses who have part in community health services also have various independent nursing intervention to help undergraduate students manage stress. One of those intervention is “Spiritual Support” (NIC Label) (Bulechek, Butcher, Dotcherman, & Wagner, 2013) which can increase one's religiosity. In Islam one of the recommended actions to calm down is Dhikr.

Previous studies suggested that there were several therapies that can reduce stress. One of these therapies was spiritual therapy. Prayer has been considered part of religious rituals to deal with stress. Prayer can be a part of psychotherapy for Muslims (Henry, 2013). Dhikr is an example of Muslims prayer rituals. Dhikr has been

studied can reduce stress in HIV patients and psychology students (Setyabudi, 2012; Sucinindyasputeri, Ridha; Mandala, Citra I; Zaqiyatuddinni, Anisah; Aditya, 2017). In this study researchers used spiritual therapy with Dhikr, because there is still less amount of research on spiritual therapy with Dhikr to reduce stress in health sciences students. Dhikr is a human effort to draw closer to Allah SWT (God terminology in Islam) by remembering Allah and His majesty. One of the benefits of Dhikr is getting inner peace, so that people who dhikr can reduce their stress.

This research was conducted in Universitas Respati Yogyakarta (UNRIYO) refers to Rochdiat and Setiawan (2016) that conclude UNRIYO students who experienced stress were 23.1% mild stress, 10.1% moderate stress, 2.4% severe stress, and 0.3% very heavy. The aim of this study is to analyze stress in health students after treated with Dhikr.

MATERIALS AND METHODS

Type of this research was quasi experimental with a pre test and post test nonequivalent control group design. We chose Muslim students ages 17-22 years old in each program study in Faculty of Health Sciences UNRIYO. Students must have stress score > 0 using DASS questionnaire. Using sample size estimation formula to test mean difference between two independent groups, we found minimal sample size was 15 respondents in each groups (intervention and control group). To anticipate drop out, we took 20 respondents for each groups and used quota sampling technique to fulfill this number. We excluded 2 respondents who not complete therapy for two sessions. In control group, there was 3 respondents retreat from

research. Researchers took another respondents until meet 20 respondents in each group.

DASS Questionnaire (Depression Anxiety Stress Scale) 42 and Standard of Procedure of Spiritual Therapy: Dhikr were used in this research and has been tested for validity and reliability. Validity score of all items in DASS are > 0.532 while reliability score were 0.8806.

Paired T-Test was used to see differences in stress scores in pre and post test of each group because data distribution in pre and post test in both group were normal (p -value > 0.05 using Shapiro Wilks test). Mann Whitney test was used to see differences in in stress scores deviation between control and treatment groups because stress scores deviation data had not normal distribution (p -value < 0.05 using Shapiro Wilks test).

The process of this research can be seen in Figure 1. Dhikr was conducted in a closed and quiet room. Dhikr is heard through headphones so sound of Dhikr was directly received by ear and sent to the brain without any environmental disturbances. To perform this intervention, we used a laptop connected to headphones with a volume of 50-60 db and we positioned respondents in a lying position so that they felt comfortable. They were advised to listen to “la illaha il lalloh” sentence and repeat it in their mind. The time needed to do Dhikr therapy in this study was 45 minutes.

“La illaha il lalloh” sence is a part of Dhikr. The meaning of this sentence is “there is no other God unless Allah SWT”. This sentence reminds Muslims of the oneness of Allah. By repeating this sentence in their mind and pervade the meaning, respondents hung all solutions from their problems to Allah SWT so that

they could have inner peace because they trusted Allah SWT would overcome all their problems.

Dhikr was given in two sessions in a span of seven days. On the first day, a pre-test and first session of Dhikr was carried out on respondents. After that, we gave softcopy of dhikr sound containing “La illaha il lalloh” sentences to respondents through flashdisks and instructed respondents to do Dhikr once every day until the seventh day. Respondents must

noted dhikr therapy at home for 7 days in the workbook and handed it to us on the 8th day. On the eighth day, the second session was carried out to the respondent and after that the post test was delivered by us. There is no difference in the treatment of Dhikr in both sessions (figure 1).

This study has been conducted in hold principle of research ethics like anonymity, autonomy, veracity, beneficence, justice and informed consent also.

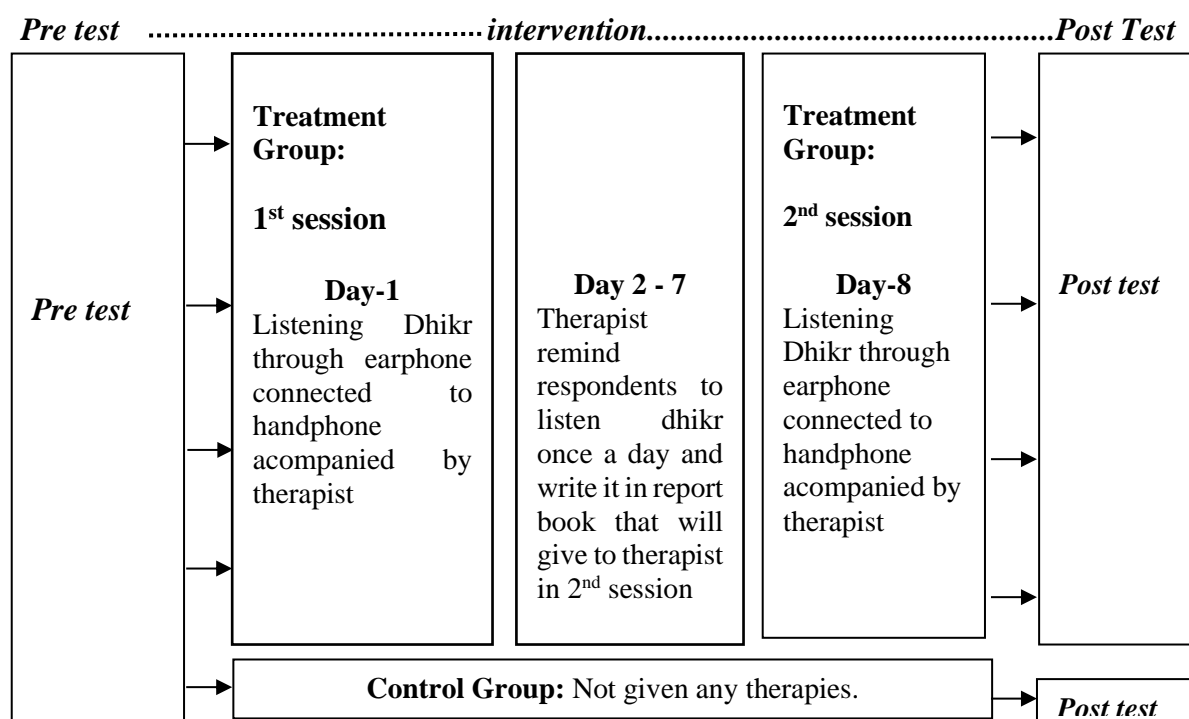


Figure 1. Research Process

RESULTS

1. Respondent Characteristics

Among 40 respondents in this study, there were 3 males and 37 females. Based on the years of study, respondents were dominated

by second year students (13 respondents) and the least represented by third year students.

Table 1. Demographic data between two groups (n=40)

Characteristics	Intervention Group		Control Group	
	f	%	f	%
a. Gender				
1) Male	2	10.0	1	5.0

2) Female	18	90.0	19	95.0
b. Years of study				
1) First year	5	25.0	6	30.0
2) Second year	6	30.0	7	35.0
3) Third year	3	15.0	4	20.0
4) Fourth year	6	30.0	3	15.0

2. Stres Score Analysis

Table 2 shows that the average stress score in pre-test in control group was 11.75, while the average stress score in post-test was

14.85, increased 3.10 points. If categorized by DASS, the stress score in both pre and post test is still in range of normal stress level.

Table 2. Stress Score Analysis Between Pre and Post Test Between Control and Intervention Group (n=40)

No.	Variable	Mean	Med.	SD	P-Value
Control Group					
1.	<i>Pre Test</i>	11.75	10.50	6.528	0.024
2.	<i>Post Test</i>	14.85	12.00	7.534	
Intervention Group					
1.	<i>Pre Test</i>	18.60	17.50	8.506	0.000
2.	<i>Post Test</i>	11.10	10.50	5.210	

Bivariate analysis for pre-test and post-test used paired t-test because data were normally distributed. Table 1 shows that stress scores difference between pre and post test in the control group was statistically significant (p value 0.024).

Table 2 also shows that average stress score in pre test treatment group was 18.60, while average stress score in post test was 11.10 or decreased by 7.5 points. If

categorized by DASS, the stress score in the pre-treatment group's test is in mild stress level while post-test stress score is in normal stress level.

Bivariate analysis for pre-test and post-test in treatment group used paired t-test because both data in these group were normally distributed. Result showed a significant difference (p-value <0.05).

Table 3. Difference Analysis in Mean Stress Score Deviation Between Control and Intervention Group (n=20)

No.	Group	Mean Stress Score Difference	P-Value
1.	Control	3,1	0,000
2.	Treatment	-7,5	

Table 3 shows that there is a statistically difference in mean stress score difference between control and treatment group (p-value < 0,05). This also can be seen from

mean difference between these two groups where mean stress score had increase in control group while stress score in treatment group declined.

DISCUSSIONS

Health sciences students are proven to have higher stress levels than non-health science students. Health sciences students have more stressors. These stressors include interpersonal relationships during college, financial problems, worries about work in the future, being away from family and other stressors (Bamuhair et al., 2015; Rochdiat, Wahyu; Setiawan, 2016; Saravanan & Wilks, 2014).

The type of university also contributes to student stress. Private universities expect their students to be more competitive and students are required to work hard to reach the target. Students at private universities have more psychological and stress problems related to the new environment, higher tuition fees, and higher burdens due to the obligation to be more successful than students at state universities (Saravanan & Wilks, 2014).

Learning methods for health sciences students usually use student centered learning (SCL). This method provides flexibility for students to study independently. Students are required to do many tasks, interact with patients during the learning process and try to solve patient problems independently (Al-Sowygh, Alfadley, Al-Saif, & Al-Wadei, 2013; Rochdiat, Wahyu; Setiawan, 2016). This SCL method requires students to be more active in learning so that the SCL method is perceived by students as a source of stress because of the inability of students to compensate many tasks in their study.

The results of this study showed that stress score mean in pre-test in control group was 11.75 (normal stress) and 18.60 in intervention group (mild stress). These results indicate that stress is still positively perceived by respondents. This result is

different from previous studies which concluded that students report more negative stress than positive ones (Abdulghani et al., 2011; Saravanan & Wilks, 2014).

This difference is caused by the time of this research that conducted at the beginning of the semester. At this time, there were only a few stressor experienced by students. It can be proven from the results of interview to several respondents in pre-test. Respondents only complain about intrapersonal related stressors (such as personal financial problems) and there was not any stressors that related to learning process.

Positive stress can help health sciences students to complete their tasks. Their academic grade will increase and in the end students will have greater opportunities to have job when they graduate (Shkulaku, 2015). Positive stress can ultimately make health sciences students deal with their stressors. Health sciences students are motivated to be productive during learning, responsible when caring for and empathizing with patients, which finally increases self-satisfaction. This cannot be obtained when the stress experienced is negative.

Stress can also have a negative effect on health science students. Psychological effects include low self-esteem, anxiety and even depression. Negative stress also causes a variety of physical complaints such as insomnia, reduced appetite and other psychosomatic symptoms. Social problems can also arise such as withdrawal from social relations, triggering conflicts with family or friends and reduced learning value (Abdulghani et al., 2011; Saravanan & Wilks, 2014; Trianes-Torres, 2015).

Increased stress score mean in control group (from 11.75 to 18.60) showed a

tendency to stress change toward negative stress. This (according to the interview results) is caused by an increase in the number of stressors and respondents in control group experienced more various stressors compared with pre-test (for example is they started to experienced academic stressors). Therefore, continuous stress measurement in one academic year will be needed to describe the stress of health sciences students comprehensively. So it can be also concluded that without giving stress management in health sciences students, their stress tend to increase as same time as increasing activity or task in their learning process.

One of stress management that can be given to health sciences students is spiritual therapy. Dhikr was chosen because the majority of students are Muslim so that in the future spiritual therapy: dhikr can be an alternative for mental nurses to handle stress in the student community in Indonesia.

Dhikr is praise to Allah SWT which is compiled and pronounced coherently, and repeatedly. When respondents listen or do dhikr, it is tantamount to doing meditation and prayer, because it requires an intensive focus to remember Allah and glorify His name. Dhikr in terms of mental nursing intervention is including one of the interventions in NIC Label named "Spiritual Support". This intervention is an independent nursing action that aims to help patients feel a close relationship with Allah SWT (Bulechek et al., 2013; Setyabudi, 2012; Yusuf, A., Nihayati H.E., 2016). The feeling of being close to Allah SWT for Muslims provides peace in their mind. This can helps the person to solve their problem.

This study found that stress mean score decreased in treatment group from mild

stress to normal stress (from 18.60 to 11.10). These results are supported by previous studies which found similar results. When students listen to Dhikr, the student's focus will increase. Listening Dhikr will also increase thalamus activity, dopamine level, but decrease in parietal lobe activity. After that, the activity of the amygdala and hippocampus will increases, which stimulates the peripheral parasympathetic system. The result of parasympathetic stimulation is that it increases parasympathetic activity, which eventually results in a subjective sensation of deep relaxation and calmness, and can also reduce heart rate and respiratory frequency (Shkulaku, 2015; Sucinindyasputeri, Ridha; Mandala, Citra I; Zaqiyatuddinni, Anisah; Aditya, 2017; Yusuf, A., Nihayati H.E., 2016). The effect of relaxation experienced by students expand their focus so that student not only focus on the problem. Students can also see alternatives problem solving so that the problem will resolve and ultimately decreases stress. Dhikr is thus not only a nurse's independent action but can be a student's ability to increase their religiosity as a new self management strategy.

Religiosity is the best step to overcome problems/stress by improving the quality of their prayers and religious practices. The act of dhikr in which there is an activity of remembering Allah SWT being part of the ritual of Moslems. When Moslem doing Dhikr, they can produce spiritual energy that has psychologically beneficial such as reducing stress, increasing emotional well-being, and increasing sensitivity and mastery in interpersonal relationships. Dhikr can also be a therapeutic intervention that is integrated with other therapies for Muslim patients (Achour et al., 2015; Henry, 2013).

Nurses as professional health workers must prioritize their own interventions. Integration of dhikr as part of “spiritual support” (NIC Labels) for Muslim students who experience stress will increase the positive perception of the community to nurses especially mental health nurses or community nurses. Nurses can also be involved in the mental health service system in universities and play an active role in creating stress-free campuses. With optimal stress management, students can learn well, achieve satisfactory grades and even have a great chance of getting a suitable job.

The limitations of this study were the relatively small number of respondents. Besides of that, researchers were unable to control the respondent's Dhikr activities while at home.

CONCLUSIONS

Dhikr can be a new alternative to independent nursing intervention as part of Spiritual Support (NIC Label) that has been recognized in the 6th edition of the Nursing Intervention Classification (NIC). The integration of Dhikr in Spiritual Support (NIC Label) for Muslim undergraduate students is able to reduce student's stress. Dhikr therapy is expected to be a specific nursing intervention in a country that is predominantly Muslim.

Next researchers are expected to increase the number of samples in various college so that in the future Dhikr can be applied by professional psychiatric nurses to mental health services in colleges in Indonesia, which is predominantly Muslim.

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