



MUROTAL AL-QURAN THERAPY TO INCREASE SLEEP QUALITY IN NURSING STUDENTS

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ABSTRACT

Background: Learning schedules are densely packed, tasks and homework make students stress and fatigue so that interfere with their quality of sleep. This study aims to analyze murottal Alquran in improving sleep quality. **Methods:** This research method used quasi experimental design with the Pre-test-Post-test approach. The sampling technique used accidental sampling with control and treatment group. The number of samples used is 30 students. Sleep quality is measured using the Pittsburgh Sleep Quality Index. **Results:** There was a significant difference sleep quality ($p = 0.001$) in the treatment group and no significant difference in the control group ($p = 1,000$). There was a significant difference in murrotal alquran therapy in improving sleep quality ($p = 0.001$) between treatment group and control group. **Conclusions:** Murrotal al-Quran therapy effective to improve sleep quality in nursing students of Jember University

Keywords: murottal, alquran, sleep, quality

INTRODUCTION

Stress is defined as damaged, shrunken, obsolete, retroactively, experienced by the body when it comes to pressure or threatening situation (Behere, Yadav, & Behere, 2011). The main problem that is often experienced by nurse students is stress and anxiety in the learning process. According to research has known that nursing students experiencing the greatest stress compared with medical students and other majors students (Patterson, 2016). The research done on the students of nursing school of Magister Science Program in Jamaica obtained data from 81 students Majority (50,9%) experiencing moderate stress while 22,8% have high stress and 24,6% have low stress. The highest stress is due to a lot of pressure during the final exam

preparation (Brown, Johnson, & McPherson, 2016). Many factors can make a college into a very stressful environment such as a broad curriculum, student organizations, homework, many academic requirements, task, difficult and various types of exams (Waqas et al., 2015; Sreeramareddy et al., 2007). It is well known that high levels of stress has negative effect on physical and mental health (distress or unfavorable stress) (Behere, Yadav, & Behere, 2011). High levels of stress can impair cognitive function, concentration, academic score and achievement (Dahlin, Joneborg, & Runeson, 2005). Stress can also cause overall physical and psychological symptoms such as anxiety, appetite changes, headache, increased heart rate,



and disturbed sleep patterns (Kurebayashi et al., 2012; Nelwati et al., 2013).

Sleep has an important role in the cognitive, affective, physical and mental health (Ratcliff et al., 2009; Giri et al., 2013). Research in the United States, Australia, and India mentions that students with poor sleep quality get poor grades on their exams and more depressed than their peers (Vanderlind et al., 2014; Menon et al., 2015). Research conducted at King Saud bin Abdulaziz University has found low prevalence of sleep quality (76%) and stress (53%) on medical students and statistically a significant relationship between stress and poor sleep. Logistic regression shows that students who are not suffering from stress tend not to have poor sleep quality (Almojali et al., 2017).

Treatment of sleep disorders by using drugs can cause psychological and physiological side effects that will interfere with daily activities and may cause dependence and tolerance (DeMartinis, Kamath & Winokur, 2009). Music can be used as an alternative therapy to improve sleep quality of patients with sleep disorders in adults (Wang, Sun & Zang, 2014). Listening to music can also be used as an effective intervention to improve sleep quality for adults (Shum et al., 2014). Music therapy during sleep can improve rested rating scores, improve sleep quality, shorten stage 2 sleep and extend REM sleep in people with chronic insomnia (Chang et al., 2012). Buddhist music therapy can significantly improve longer sleep time in people with sleep disorders, but can not affect electroencephalography (Huanga et al., 2017).

Recital AlQuran has a rhythm so it can be regarded as music that can affect some areas in mind (Hojjati et al., 2014). A Muslim prayed to God by reading the AlQuran to strengthen the bond between God and human (Ibrahim, Bakar & Ng Siew, 2009). Praying to God aims to gain peace of mind in the face of the hardships of life in work, family, and society. Reading the Qur'an can reduce stress and keep the mind in a state of calm/rest (Kamal, Mahmood & Zakaria, 2013).

This research aim is to know the influence of therapy Murottal Al-Qur'an to the quality of sleep in college students of nursing science University of Jember.

METHODS

The research design was a quasi experiment with the pretest-posttest approach with control group design. This research use experimental group and control group, at an early stage researchers have reviewed a sample of the sleep quality of the experimental and the control group (pretest), then the experiment group was given preferential treatment in the form of therapy murottal Al-Qur'an while a control group was not given the treatment therapy. The final stages of the research, examine again sleep quality from the sample group of experimental and control group (posttest).

The sample used in this study are nursing science's students at University of Jember that have criteria inclusion, 30 respondents in both groups the treatment or control group. The sampling technique in this study is accidental sampling. Criteria for inclusion in this study is as follows:

- 1) Students who are Muslim;



- 2) Students who are having a bad quality of sleep;
- 3) Students have a Hand Phone and Headset;
- 4) Students who are willing to be the respondent.

Students who have experienced a bad quality of sleep is asked to fill out questionnaires of PSQI on the first day before the therapy is conducted, and re-assessed by filling out a questionnaire on the PSQI 4th week at last day of research. Pittsburgh sleep quality index (PSQI) consist of Subjective sleep quality, Sleep latency, Sleep duration, Sleep efficiency, Sleep disturbance, Use of sleep medication, and Daytime dysfunction.

Murottal al-Quran therapy is conducted by students use mp3 files and the headset, then played for 15 minutes consist of surah Al-Fatihah for 1 minute, Ar-Rahman over 12 minutes, Al-Iklas, Al-Falaq and An-Naas during the last 2 minutes. Murottal al-Quran was read by Mishary Rashid Al Afasi as imam of the mosque at Al-Kabir in Kuwait which was played during the time of a break in the Group and evening before sleep independently. The students implemented murottal al-Quran therapy twice a day during the break at daytime together with researcher directly and at night when students went toward the bed and asked to sign a sheet self-evaluation after therapy finished for 4 weeks. This therapy was started from May 12, 2017 – 09 June 2017

Parametric tests were used to analysis data in this study are t-test and paired t-test. A t-test was used to analysis the hypothesis of two paired samples of data interval and ratio. Dependent t-test (Paired T-test) used to test mean

differences between the two groups with dependent data which scale interval/ratio. This analysis will compare the mean of sleep quality before and after therapy murottal Al-Qur'an between control and treatment group.

The Shapiro-Wilk test (less than 50) and Levene's test is done to find out homogeneity and normality of data to know distribution and homogeneity of the data. The results analysis data pretest and posttest at treatment's and control's group both show the values $p > \alpha$ ($\alpha = 0.05$). This shows the results of data obtained has a normal distribution of data and homogenized so that test is a test of parametric.

RESULTS

Table 1 showed the average sleep quality respondents before therapy murottal Al-Qur'an was 8.27 (poor sleep quality) (score PSQI = 0-21) and after therapy murottal Al-Qur'an was 5.13 (good sleep quality). Table 2 showed dependent t-test in the treatment group with p -value = $0.001 < \alpha$ ($\alpha = 0.05$). It means there is a significant difference between the value of sleep quality before and after therapy murottal Al-Qur'an.

Table 3 showed the average value of the quality of sleep in the control group at pretest with score 8,2 (poor quality) and after 4 weeks study, it remains unchanged at posttest with the score of 8,07 (poor quality). Table 4 showed t-test dependent with P value = $1.00 > \alpha$ ($\alpha = 0.05$). It means that there is no significant difference in sleep quality between pretest and posttest in the control group.

Table 5 showed independent t-test on treatment and control group with p -

value = 0.001 < α ($\alpha = 0.05$). It means that there are significant differences in sleep quality between treatment and control group.

Table 1 The average's difference between the sleep quality of the 7 components of the Questionnaire before and after given PSQI Therapy Murottal Al-Qur'an on the Nursing student of the University of Jember in the Treatment Group, may, 2017 (n = 15)

Components	Mean (pretest)	Mean (posttest)	Difference Δ
Subjective sleep quality	1,47	0,73	-0,74
Sleep latency	1,07	0,53	-0,54
Sleep duration	2,07	1,93	-0,14
Sleep efficiency	0,4	0,33	0,7
Sleep disturbance	1,67	0,87	-0,80
Use of sleep medication	0,0	0	0
Daytime dysfunction	1,6	0,73	-0,87
Total	8,27	5,13	3,14
Mean	1,18	0,73	0,45

Table 2 The difference in sleep quality before and after Murottal Al-Qur'an Therapy on the Nursing student of the University of Jember in treatment group may 2017 (n = 15)

Sleep Quality	Mean	SD	t	p-value	95% CI
Before	8,27	1,71	9,40	0,001	0,229-0,895
After	5,13	1,302			

Table 3 The average's difference between the sleep quality of the 7 components of the Questionnaire on the Nursing student of the University of Jember in the control Group, may, 2017 (n = 15)

Components	Mean (pretest)	Mean (posttest)	Difference Δ
Subjective sleep quality	1,47	1,33	0,14
Sleep latency	1,47	1,47	0
Sleep duration	1,73	2	-0,27
Sleep efficiency	0,53	0,67	-0,14
Sleep disturbance	1,6	1,2	0,4
Use of sleep medication	0,07	0	0,07
Daytime dysfunction	1,4	1,4	0
Total	8,27	8,07	0,20
Mean	1,18	1,15	0,03

Table 4 The difference of sleep quality between Pretest and Posttest on the Nursing student of the University of Jember in the control group may 2017 (n = 15)

Sleep Quality	Mean	SD	t	p value	95% CI
Pretest	8,13	1,685	0,00	1,00	-0,467-0,467
Posttest	8,13	2,100			

Table 5 The differences of sleep quality on the Nursing student of the University of Jember in the Treatment Group and the control group before and after Murottal Al-Qur'an therapy may 2017 (n = 30).

Variable	Δ Mean	SD	t	p value	95% CI
Treatment Group (n=15)	-3,13	1,246	-7,102	0,001	-3,865-(-2,135)
control group (n=15)	-0,13	1,060	-7,102		-3,866-(-2,134)

DISCUSSION

The results of this study on the treatment group showed the average sleep

quality respondents before therapy murottal Al-Qur'an was 8.27 (score PSQI = 0-21) and after therapy murottal Al-



Qur'an was 5.13. The sleep quality of students before murottal Al-Qur'an therapy shows poor quality of sleep and after murottal Al-Qur'an therapy show that students have better sleep quality. The results of statistical tests using dependent t-test in the treatment group showed $p\text{-value} = 0.001 < \alpha$ ($\alpha = 0.05$). It can be concluded that there is a significant difference between the value of sleep quality before and after therapy murottal Al-Qur'an on the Nursing student of the University of Jember. The research is in line with Maulina et al. (2015) that murottal Al-Qur'an therapy increase sleep quality on elderly respondents.

Sleep quality of students has increased after murottal Al-Qur'an therapy. Students can afford to sleep early, the frequency of waking up at night is reduced and the condition of the students after getting up in the morning feeling more refresh than usual. This condition gives positive impact on student's daily activities, especially in the learning process. The student's mind becomes fresher and concentration at learning also improved. It will also enhance the learning achievements of students (Gaultney, 2010).

The results of the analysis data sleep quality of students in the control group using t-test dependent showed that the difference in mean values of pretest and posttest was 0.00. $P\text{ value} = 1.00 > \alpha$ ($\alpha = 0.05$) it can be concluded that there is no significant difference between the value of sleep quality pretest and posttest at students in the control group. The results showed that the average value of the quality of sleep in the control group at posttest unchanged with the score of 8

(poor quality). The research is in line with Wahyu (2016) that there is no difference in the results of a pretest and posttest sleep quality of Elderly in the control group.

Most of the student's sleep quality is bad because student still has not been able to manage time, learning's schedules and tasks. Students still have to adapt to their environment away from home. Some of these are some of the factors that cause the students often slept late and making students feel drowsiness when attending the next day. This will disrupt the process of sleep students so that the expected quality of sleep will not be achieved (Wicaksono, 2012).

The results of statistical tests using independent t-test on treatment and control group showed that the $p\text{-value} = 0.001 < \alpha$ ($\alpha = 0.05$). So it can be concluded that there are significant differences in sleep quality between treatment and control group on the Nursing student of the University of Jember. The results of this study are also in line with Miftahul (2016) that murottal Al-Qur'an significantly reduce patient's level of anxiety in cataract.

CONCLUSIONS

Nursing students who received four weeks of murottal al-Quran therapy in the treatment group showed significant improvements in sleep quality from poor quality to good sleep quality. This study shows the influence of murottal al-Quran in improving student's sleep quality. So that students who experience poor sleep quality can use murottal al-Quran as an alternative therapy to improve sleep quality. Nursing students who are in the control group still have poor sleep quality



after 4 weeks of study. This result indicates that without certain therapy the quality of sleep will not turn out to be good. If students not immediately given a certain therapy, the quality of sleep will get worse that disrupt student's learning process. Students should immediately seek appropriate alternative therapy so that it can be used to overcome the poor quality of sleep. There are significant differences in sleep quality between treatment and control group on the Nursing student of the University of Jember. Then it can be concluded that Murrotal al-Quran therapy is effective to improve sleep quality in nursing students of Jember University. Murottal al-Quran therapy as an effort that can help students in improving the quality of sleep so it is expected to be applied, especially for lecturers to provide knowledge about murottal therapy al-Quran for nursing students of Jember University. This research is still many shortcomings so it is expected to further research that can make innovations or use new methods in observing the implementation of therapy. The researcher also advised identifying the influence of murottal therapy al-Quran on Muslim and non-Muslim clients.

REFERENCES

- Almojali AI, Almalki SA, Alothman AS, Masuadi EM, Alaqeel MK. 2017. The prevalence and association of stress with sleep quality among medical students. *Journal of Epidemiology and Global Health* 2017; 7, Issue 3, 169-174.
<https://doi.org/10.1016/j.jegh.2017.04.005>
- Behere SP, Yadav R, Behere PB. 2011. A comparative study of stress among students of medicine, engineering, and nursing. *Indian J Psychol Med* 33:145–8. doi:
<http://dx.doi.org/10.4103/0253-7176.92064>.
- Brown K, Johnson PA, McPherson AN. 2016. Academic-related stress among graduate students in nursing in a Jamaican school of nursing. *Nurse Education in Practice* 20. 117-124. <https://doi.org/10.1016/j.nepr.2016.08.004>
- Chang ET, Lai HL, Chen PW, Hsieh YM, Lee LH . 2012. The effects of music on the sleep quality of adults with chronic insomnia using evidence from polysomnographic and self-reported analysis: A randomized control trial. *International Journal of Nursing Studies* 2012; 49: 921–930. doi:10.1016/j.ijnurstu.2012.02.019
- Dahlin M, Joneborg N, Runeson B.2005. Stress and depression among medical students: a cross-sectional study. *Med Educ* 2005;39:594–604. doi:
<http://dx.doi.org/10.1111/j.1365-2929.2005.02176.x>
- DeMartinis NA, Kamath J, Winokur A. 2009. New approaches for the treatment of sleep disorders. *Advances in Pharmacology* 2009; 57:187—235.
- Fatimah Ibrahim F, Wan Abu Bakar, W.A., Ng Siew, C., 2009. *Solat: Kebaikan dari Perspektif Sains..* Universiti Malaya Publisher.
- Gaultney, J.F. 2010. The Prevalence of Sleep Disorders in College Student: Impact on Academic Performance. *Journal of American College Health*.



- 2010; 59(2): 91-7. doi: 10.1080/07448481.2010.483708
- Giri P, Baviskar M, Phalke D. 2013. Study of sleep habits and sleep problems among medical students of pravara institute of medical sciences Ioni, Western maharashtra, India. *Ann Med Heal Sci Res* 2013;3:51-4. <http://dx.doi.org/10.4103/2141-9248.109488>
- Hojjati A, Rahimi A, Farehani MDA, Gharamaleki NS, Alian B. 2013. Effectiveness of Quran Tune on memory in children. *Procedia - Social and Behavioral Sciences* 2014; 114: 283 – 286. 4th World Conference on Psychology, Counselling and Guidance WPCPG-2013. doi: 10.1016/j.sbspro.2013.12.699
- Huanga CY, Chang ET, Hsieh YM, Lai HL. 2017. Effects of music and music video interventions on sleep quality: A randomized controlled trial in adults with sleep disturbances. *Complementary Therapies in Medicine* 2017; 34: 116-122. <http://dx.doi.org/10.1016/j.ctim.2017.08.015>
- Kamal NF, Mahmood NH, Zakaria NA. 2013. Modeling brain activities during reading working memory task : Comparison between reciting Quran and reading book. *Procedia - Social and Behavioral Sciences* 2013; 97: 83 – 89. doi: 10.1016/j.sbspro.2013.10.207
- Kurebayashi, L., do Prado, J., da Silva, M., 2012. Correlations between stress and anxiety levels in nursing students. *J. Nurs. Educ. Pract.* 2 (3), 128-134. <https://doi.org/10.5430/jnep.v2n3p128>
- Maulina K, Susilo C, Tribagus C. 2015. Pengaruh Terapi Murottal Al-Qur'an terhadap Kualitas Tidur pada Lansia di UPT Pelayanan Sosial Lanjut Usia Banyuwangi 2015. Fakultas Ilmu Kesehatan UNMUH Jember.
- Menon B, Karishma HP, Mamatha IV. 2015. Sleep quality and health complaints among nursing students. *Ann Indian Acad Neurol* 2015;18:363-4. <http://dx.doi.org/10.4103/0972-2327.157252>
- Miftahul Huda A. 2016. Pengaruh Pemberian Terapi Murottal Al-Qur'an terhadap Tingkat Kecemasan Pasien Pre Operasi Katarak di RSD dr. Soebandi Jember. Repository Unej.
- Nelwati, McKenna, L., Plummer, V., 2013. Indonesian student nurses' perceptions of stress in clinical learning: a phenomenological study. *J. Nurs. Educ. Pract.* 3 (5), 56-65. <https://doi.org/10.5430/jnep.v3n5p56>
- Patterson, Susan L., 2016. The effect of emotional freedom technique on stress and anxiety in nursing students: a pilot study, *Nurse Education Today*. doi: 10.1016/j.nedt.2016.02.003
- Ratcliff R, Van Dongen HP. 2009. Sleep deprivation affects multiple distinct cognitive processes. *Psychon Bull Rev* 2009; 16:742-51. <http://dx.doi.org/10.3758/PBR.16.4.742>
- Shum A, Taylor BJ, Thayala J, Chan MF. 2014. The effects of sedative music on sleep quality of older community-dwelling adults in Singapore. *Complementary Therapies in Medicine* 2014; 22: 49-56.



- <http://dx.doi.org/10.1016/j.ctim.2013.11.003>
- Sreeramareddy CT, Shankar PR, Binu VS, Mukhopadhyay C, Ray B, Menezes RG. 2007. Psychological morbidity, sources of stress and coping strategies among undergraduate medical students of Nepal. *BMC Med Educ.* 7:26. <http://dx.doi.org/10.1186/1472-6920-7-26>
- Vanderlind WM, Beevers CG, Sherman SM, Trujillo LT, McGeary JE, Matthews MD, et al. 2014. Sleep and sadness: exploring the relation among sleep, cognitive control, and depressive symptoms in young adults. *Sleep Med* 2014; 15: 144–9. <http://dx.doi.org/10.1016/j.sleep.2013.10.006>.
- Wahyu, C.A. 2016. Pengaruh Terapi Relaksasi Nafas Dalam terhadap Kualitas Tidur Lansia di Upt Wredha Budi Dharma Ponggalan Giwangan Umbulharjo Yogyakarta. 2016. *Yogyakarta: Opac Unisayogya.*
- Wang CF, Sun YL, Zang HX. 2014. Music therapy improves sleep quality in acute and chronic sleep disorders: A meta-analysis of 10 randomized studies. *International Journal of Nursing Studies* 2014; 51: 51–62. <http://dx.doi.org/10.1016/j.ijnurstu.2013.03.008>
- Waqas A, Khan S, Sharif W, Khalid U, Ali A. 2015. Association of academic stress with sleeping difficulties in medical students of a Pakistani medical school: a cross sectional survey. *PeerJ.* 3:e840. doi: <http://dx.doi.org/10.7717/peerj.840>.
- Wicaksono DW. 2012. Analisis Faktor Dominan Yang Berhubungan Dengan Kualitas Tidur Pada Mahasiswa Fakultas Keperawatan Universitas Airlangga. Fakultas Keperawatan Universitas Airlangga Surabaya.