

The Efficacy of Murottal and Prayer as Therapy for The Management of Anxiety and Sleep Disturbances in The Elderly

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Abstract: Aging is a natural process characterised by predictable physical and behavioral alterations that all people experience as they progress through their lives. Anxiety and sleep disorders are two issues that plague the elderly. The elderly typically complain about sleeping issues as a result of various chronic diseases. Frequent night awakenings might lead to an increase in the amount of time spent sleeping during the day. The aim of this study was to see how efficient murottal and prayer are at reducing anxiety and sleep problems in the elderly. This study employs an experimental design with a before and post approach, as well as a control group. This study collect 60 samples from elderly people in Pamijen Village. They were split into two groups: 30 elderly in the murottal group and 30 elderly in the prayer group. A questionnaire was used to assess anxiety and sleep pattern disturbances before and after treatment. Simple random sampling was used as the sampling technique. The paired t-test was used to analyse the data. Statistical tests of differences in sleep patterns before and after treatment in the murottal and pray groups were $p = 0.00$, statistical tests of anxiety scores before and after listening to prayer were $p = 0.869$, and statistical tests of differences in sleep patterns before and after treatment in the murottal and pray groups were $p = 0.00$. Murottal therapy has been shown to be effective in reducing anxiety and sleep disturbances.

Keywords: Aging, Anxiety, Chronic Disease, Sleep Wake Disorders

INTRODUCTION

The World Health Organization (WHO) claims that, elderly people are classified into four age groups: middle age (45-59 years), elderly (60-74 years), old age (74-84 years), and very old age (> 84 years). Notoatmodjo (2007) Indonesia is a developing country with a growing population of people aged 60 and up. According to the results of the 2010 population census, With 18.1 million senior people, or 7.6% of the total population, Indonesia is one of the five nations in the world with the highest number of elderly people. According to the Central Statistics Agency (2013), the number of senior persons (those aged 60 and over) is predicted to increase to 27.1 million in 2020, 33.7 million in 2025, and 48.2 million in 2035 (Ministry of Health, Republic of Indonesia, 2014).

Growing old is a natural process that no one can avoid. Aging is a natural process that all people go through when they reach a specific developmental stage in their lives (Stanley & Beare, 2007). The older a person gets, the more likely he or she will have physical, mental, spiritual, economic, and social problems. Anxiety and sleep issues are two of the most common issues among seniors. Older folks have a wide range of sleeping patterns. The elderly frequently complain about problems sleeping at night as a result of various chronic conditions. The proclivity to nap during the day appears to increase with age. Frequent nighttime awakenings can result in an increase in the amount of time spent sleeping during the day. Sleeping time decreased by an hour or more when compared to time spent in bed. According to Hafiza (2014), the degeneration process in the elderly reduces effective sleep time, results in inadequate sleep quality, and causes a variety of sleep complaints. Fulfilling sleep requirements problems are becoming more common in the elderly, with an estimated frequency of roughly 76%. The older group has trouble sleeping 40% of the time, wakes up 30% of the time, and has other sleep requirements issues the rest of the time. (Amir, 2007).

METHOD

The researcher divided the elderly into two groups, one given murottal and the other given prayer, in this quasi-experiment with before and posttest with control group design. This research design was observed twice, namely before and after treatment. The elderly in Pamijen Village, Kec. Sokaraja, who attended the elderly posyandu, made up the research population. The researchers propose to gather a sample of 60 senior people in this study, with 30 murottal groups and 30 prayer groups. Simple random sampling will be utilized as the sample strategy. A random and systematic lottery is used for simple random sampling.

The following steps were taken to collect research data: the researcher explained the research objectives to the respondents; after understanding the research objectives, the respondents were asked to sign a statement of willingness to participate in the study; conduct a lottery to determine the intervention group or control group; the respondent then measured the level of anxiety and disturbed sleep patterns in the elderly; and finally, give murottal. The Visual Analog Scale (VAS-A) Anxiety from Arnetz & Hasson (2005) was used to measure anxiety, and a sleep disorder questionnaire based on The Pittsburgh Sleep Quality Index (PSQI) consisting of 9 lists of questions related to sleep characteristics was used to collect data. The Pittsburgh Sleep Quality Index (PSQI) is a self-administered questionnaire that assesses the quality and interruptions of sleep. This questionnaire can provide seven "component" scores: subjective sleep quality, sleep latency, sleep length, habitual sleep efficiency, sleep disruptions, usage of sleeping medicine, and daytime dysfunction.

A questionnaire was used to track changes in anxiety and sleep pattern disruptions before and after therapy. Simple random sampling was utilized as the sample method. The paired t test was used to analyze the data. This study was authorized by the Jenderal Soedirman University Faculty of Health Sciences' Institutional Review Board and Ethics Committee. (No:192/EC/KEPK/X/2020)

RESULT

The elders that took part in this study ranged in age from 40 to 70 years old, with the age group 51-60 years old being the most prevalent. Pamijen Village, Kec. Sokaraja, Central Jawa, was the location of this study from March to August 2020. The researchers examined the level of anxiety and disrupted sleep patterns in the elderly before giving murottal and prayer treatment to two groups every day for one week, then re-tested the level of anxiety and disturbed sleep patterns in the elderly after one week..

Table 1 Characteristics Of Respondents By Age And Gender

Characteristics	Group				<i>p</i>
	Murottal		Pray		
	n	%	n	%	
Age					
40-50 years	2	6.67	1	3.33	0.96
51-60 years	18	60	21	70	
61-70 years	10	33.33	8	26.67	
Gender					
Male	13	43.33	11	36.67	1.000
Female	17	56.67	19	63.33	

Table 2 Differences In Anxiety Levels Before And After Treatment In The Murottal Group.

	Pre		Post	
	n	%	n	%
Not Anxious	0	0	30	100
Mild Anxiety	27	90	0	0
Moderate Anxiety	3	10	0	0
Severe Anxiety	0	0	0	0
Total	30	100	30	100

Table 2 shows that 27 participants (90%) had mild anxiety and three people (10%) had moderate anxiety before playing murottal. Meanwhile, after listening to Murottal, up to 30 people (100%) say they are not worried.

Table 3 Differences In Anxiety Levels Before And After Treatment In The Prayer Group.

	Pre		Post	
	n	%	N	%
Not Anxious	0	0	18	60
Mild Anxiety	28	93.3	12	40
Moderate Anxiety	2	6.7	0	0
Severe Anxiety	0	0	0	0
Total	30	100	30	100

According to Table 3, the level of anxiety before the prayer was heard ranged from mild to moderate, with 28 people (93.3 percent) experiencing mild anxiety and 2 people (6.7 percent) experiencing moderate anxiety. When asked about their degree of anxiety after hearing the prayer, as many as 18 people (60%) said they were not nervous and as many as 12 people (40%) said they had minor anxiety.

Table 4 Differences In Sleep Pattern Disorders Before And After Treatment In The Murottal Group.

	Pre		Post	
	n	%	N	%
Good	4	13.33	29	96.67
Poor	26	68.67	1	3.33
Total	30	100	30	100

Table 4 shows that, prior to hearing murottal, 4 persons (13.33%) had good sleep habits and 26 people (68.67%) had bad sleep patterns. Meanwhile, 29 persons (96.67%) reported good sleep patterns after listening to murottal, whereas 1 person (3.33%) reported unfavorable sleep patterns.

Table 5 Differences In Sleep Pattern Disturbances Before And After Treatment In The Prayer Group.

	Pre		Post	
	n	%	N	%
Good	2	6,67	19	63,33
Poor	28	93,33	11	36,67
Total	30	100	30	100

According to Table 5, 2 people (6.67 percent) reported disrupted sleep patterns prior to murottal, while 28 people (93.33 percent) reported disrupted sleep patterns after murottal. Meanwhile, 19 people (63.33 percent) reported good sleep patterns and 11 people (36.67 percent) reported bad sleep patterns due to murottal.

Table 6 The Results Of The Statistical Test Of Anxiety Scores Before And After Listening To Murottal.

No.	Anxiety Score	Mean	SD	Uji t	P Value
1.	<i>Pretest</i>	5,8	1,13	2,72	0,001
2.	<i>Posttest</i>	6,8	0,90		

Table 6 shows that the paired t-test resulted in a value of $t = 2.72$ ($p = 0.00$) for the paired t-test. The pretest's mean value was (5.8), and the standard deviation was SD (1.13). Posttest mean (6.8) and standard deviation (6.8) (0.90). The value ($p = 0.00$) is known based on the findings of the paired t-test study. Because the p-value ($= 0.05$) is less than the value, H_0 is rejected and H_a is approved. The findings of the study revealed that there was a substantial difference in anxiety levels before and after listening to murottal.

Table 7 The Results Of The Statistical Test Of Anxiety Scores Before And After Listening To Prayer

No.	Anxiety Score	Mean	SD	Uji t	Nilai p
1.	<i>Pretest</i>	6,14	0,91	2,72	0,869
2.	<i>Posttest</i>	6,17	0,70		

The paired t-test resulted in a value of $t = 2.72$ ($p = 0.869$), as shown in Table 7. The mean value of the pretest was (6.14), and the standard deviation was SD (0.91). The standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation of the standard deviation (0.70). The outcome of the paired t-test investigation revealed the value ($p = 0.869$). The p-value ($= 0.05$) is higher than the value. There was no significant change in anxiety levels before and after listening to the prayer, according to the statistics.

Table 8 Differences In Sleep Pattern Disorders Before And After Treatment In The Murottal And Prayer Groups

Group	n	Mean	SD	p
Murottal	30	4,62	3,32	0,114
Pray	30	2,94	2,14	

Table 8 shows that the average anxiety level for respondents who listen to prayer is 2.94 (SD = 2.14), but the average anxiety score for respondents who listen to murottal is 4.62 (SD = 3.32). The statistical test t-test revealed a $p > 0.05$ result, showing that there is no statistically significant difference between the groups of respondents who listen to prayer and those who listen to murottal. Despite the fact that there was no statistically significant difference, there was a clinical difference in the average decrease in sleep pattern interruptions, with the murottal group having a higher score than the prayer group.

DISCUSSION

Respondent Characteristics

According to Table 1, the average age of the responders is 60 years. This age falls into the elderly category. Patients who are in the elderly age range usually experience health problems resulting from an unhealthy lifestyle and the accumulation of free radicals (Mulyani, Purnawan & Upoyo, 2019).

One of the elements influencing human health is age. Aside from a decrease in overall bodily function, many health problems are seen at this age, as well as the buildup of various toxic chemicals in the body. Middle age is also associated with a reduction and slowdown of bodily processes. As a result, people in their forties and fifties are more vulnerable to disease and other health issues (Rosdhal & Kowalski, 2012).

Description Of Anxiety Levels Before And After Listening To Prayers And Murottal

The anxiety levels in both groups decreased following therapy, according to the findings of this study. Anxiety scores following therapy in the murottal group were lower than anxiety scores in the prayer group. This study backs up recent research by Boelens et al. (2012), which found that murottal seeks to portray God in memory and fixes what is needed so that reciting the Koran has a longer effect on lowering anxiety and despair. According to Oktora et al. (2016), listening to murottal can help people overcome sleep difficulties and anxiety. Murottal treatment with a harmonious pace can naturally reduce stress hormones and activate endorphins, increasing a sense of relaxation and peace, reducing fear, anxiety, and tension, and lowering hemodynamic systems like blood pressure, pulse, respiration, and brain waves. According to these findings, the patient's anxiety level is lower after listening to murottal than before listening to prayer, because listening to murottal has a deeper influence not only on relaxation but also by presenting and involving God in every recitation of the Koran and listening to murottal has a relaxing effect.

Differences In Anxiety Scores Before And After Listening To Prayers And Murottal

The p -value = 0.001 in the murottal group indicated a significant difference in anxiety levels before and after listening to murottal. This study backs up Tarwiyah's (2014) findings that murottal therapy can reduce anxiety in cholesterol patients. Murottal is recognized as a complementary intervention or alternative therapy identified by health professionals as the treatment of various patient problems because patients value its use. Religion and spirituality have different dimensions (affective, cognitive, and behavioral), and patients value its use. Murottal can have a range of beneficial benefits in therapeutic practice, including decreased anxiety and depression, increased implantation rate for success and multiple pregnancy, and enhanced physical function (Simao, et al. 2016).

Murottal therapy in the form of sound or audio, according to (Pearce 2009), works by involving the sense of hearing and human thought processes. Sound enters the ear canal via the sensing process, where it generates a nerve signal that is captured by the auditory nerve, a nerve that sends a signal to the brain, where it is interpreted as sound. According to Ariyanto (2006), murottal chants are perceived by the brain based on the existing elements, which include the physical form of sound, rhythm, intonation, tone, and the content of the prayer in the form of the meaning contained therein. Chanting sounds that fit the criteria for music therapy might help a person relax.

CONCLUSION

Anxiety prior to listening to murottal Mild anxiety was reported by 27 persons (90%) while moderate anxiety was experienced by three people (10%). While the amount of worry after experiencing murottal shows that up to 30 persons (100%) are unconcerned. Prior to hearing murottal, up to 4 persons (13.33%) had good sleeping habits, whereas up to 26 people (68.67%) had bad sleep patterns. Meanwhile, 29 people (96.67 percent) reported having a good night's sleep after hearing to murottal, whereas 1 person (3.33 percent) reported having a poor night's sleep. Murottal therapy works well for alleviating anxiety and reestablishing sleep habits..

REFERENCES

- American Health Association. (2017). 'Hypertension highlights 2017: Guideline For the prevention, detection, evaluation, and management of high blood pressure in adults' American Health Association, pp. 1-2.
- Amir, N. (2007). Gangguan Tidur pada Lanjut Usia, Diagnosis dan Penatalaksanaan. Jurnal Cermin Dunia Kedokteran
- Ariyanto, M.D. (2006), "Psikoterapi dengan doa, Suhuf, vol. 18, no. 01, hal. 3–26.
- Asmadi (2008), Kebuthan dasar manusia, Salemba Medika, Jakarta.
- Balitbang kemenkes RI. (2013), Riset Kesehatan dasar: RISKESDAS, Balitbang Kemenkes RI, Jakarta.
- Boelens, R., De Wever, B., & Voet, M. (2017). Four key challenges to the design of blended learning: a systematic literature review. Educational Research Review, 22, 1-18. DOI: <https://dx.doi.org/10.1016/j.edurev.2017.06.001>
- Corwin, E. J. (2009). Buku Saku Patofisiologi Edisi 3. Jakarta: EGC.
- Dewit, S.C. (2009). Medical-surgical nursing concepts& practice. Missouri: Saunders Elsevier
- Faradisi, F. (2012), "Efektivitas terapi murottal dan terapi musik klasik terhadap penurunan tingkat kecemasan pasien pra operasi di Pekalongan," Jurnal Ilmiah Kesehatan, vol. 5, no. 2.
- Hamalik, Oemar. (2006). Perencanaan Pengajaran Berdasarkan Pendekatan Sistem. Jakarta: Bumi aksara
- Hafiza. (2014). Aplikasi hypnotherapy. Perkuliahan terapi Komplementer. Fakultas Ilmu Keperawatan . Universitas Indonesia
- Haryanto, joni. (2015). Efektifitas model keperawatan sugesti pola tidur sehat lansia terhadap kualitas dan kuantitas tidur, status kesehatan dan penurunan tekanan darah lansia insomnia dengan hipertensi di Surabaya jawa timur. Disertasi : Fakultas Ilmu Keperawatan Universitas Indonesia
- Hasbi, M.A.S. (2002), Pedoman dzikir dan do'a, Pustaka Rizki Putra, Semarang.
- Hasson, D. & Arnetz, B.B. (2005). Validation and findings comparing VAS vs. Likert scales for psychosocial measurements. International Electronic Journal of Health Education; 8: 178-192.
- Hawari, D. 2011, Manajemen stress cemas dan depresi, Fakultas Kedokteran Universitas Indonesia, Jakarta.
- Kemenkes RI, (2014). Statistik data proyeksi jumlah penduduk
- Kroger, W.S., (2007). Clinical and experimental hipnosis (revised 2 nd ed), Philladelphia, Lippincott William & Wilkins.
- Kusuma, T. E. (2013). Bebas Hipertensi dengan Self Hypnosis, Noura Books. Jakarta: Mizan Group.
- Nasution. (1995). Diklatik Asas Mengajar. Jakarta: PT Bumiaksara
- Noorkasiani, S. Tamher. (2009). Kesehatan Usia Lanjut dengan Pendekatan Asuhan Keperawatan. Jakarta : Salemba Medika.
- Notoatmodjo, S. (2007). Pengantar Pendidikan Kesehatan dan Ilmu Perilaku. Jakarta: Rineka Cipta

- Oktora, S.P.D., Purnawan, I. & Achiriyati, D. (2016). "Pengaruh terapi murottal al Quran terhadap kualitas tidur lansia di unit rehabilitasi sosial dewanata Cilacap," *Jurnal Keperawatan Soedirman*, vol. 11, no. 3, hal. 168–73.
- Pearce, E.C. (2009). *Anatomi dan fisiologi untuk paramedis*, PT Gramedia Pustaka Utama, Jakarta.
- Polit & Hungler. 1995. *Nursing Research 5th Edition: Principals and Methods*. Philadelphia: JB Lippincott
- Potter, P. A & Perry, A. G. (2005). *Buku Ajar Fundamental Keperawatan: Konsep, Proses, Dan Praktik*. Jakarta: EGC
- Potter, P.A, Perry, A.G. (2005). *Buku Ajar Fundamental Keperawatan: Konsep, Proses, dan Praktik*, Edisi 4, Volume 2. Alih Bahasa : Renata Komalasari, dkk. Jakarta : EGC.
- Rosdahl, C. B., & Kowalski, M. T. (2012). *Buku Ajar Keperawatan Dasar*. Jakarta. EGC.
- Setiawati, W. (2015). "Rahasia besar dibalik surah ar-Rahman," *Info Unik*, diakses 5 November 2019, <https://www.infoyunik.com/2015/12/rahasia-besar-dibalik-surah-ar-rahman.html>.
- Sardiman,A.M. (2000). *Interaksi dan Motivasi Belajar Mengajar*. Jakarta Grafindo Persada.Siagian 2004
- Simao, A.A., Marques, T.R., Marcussi, S., dan Correa, A.D. (2016). Aqueous extract of *Psidium guajava* leaves: phenolic compounds and inhibitory potential on digestive enzymes. *Annals of the Brazilian Academy of Sciences* 89(3):2155-2165.
- Siswantina. (2011). "Pengaruh terapi murottal terhadap kecemasan pasien gagal ginjal kronik yang dilakukan tindakan hemodialisa di RSUD Kraton kabupaten Pekalongan," *Jurnal Universitas Muhammadiyah Semarang*.
- Stanley dan Beare. (2007). *Buku Ajar Keperawatan Gerontik*. Jakarta, EGC.
- Sugihartono. (2007). *Psikologi Pendidikan*. Yogyakarta: UNY Press.Sunaryo 2004
- Tarwoto dan Wartonah. (2006). *Kebutuhn Dasar Manusia dan Proses Keperawatan*. Jakarta : Salemba Medika.
- Tarwiyah. (2014). *Pengaruh Terapi Murottal Terhadap Tingkat Kecemasan Pasien dengan Penyakit Jantung Koroner di Ruang ICCU RSUD dr. Soedarso Pontianak*. *Proners*, Vol. 3, No.1, 2014
- Mulyani, N.S., Purnawan, I., & Upoyo, A. S. (2019). Perbedaan Pengaruh Terapi Murottal selama 15 Menit dan 25 Menit terhadap Penurunan Skala Nyeri pada Pasien Kanker Pasca Bedah. *Journal of Bionursing*, 1(1), 77-88.
- Notoatmodjo, Soekidjo. (2010). *Ilmu Perilaku Kesehatan*. Jakarta : Rineka Cipta
- Noya, A. dr. (2018). "Hormon endorfin: penghilang stres dan pereda rasa sakit alami," *alodokter*, diakses 1 November 2019, <https://www.alodokter.com/hormon-endorfin-penghilang-stres-dan-pereda-rasa-sakit-alami.html>.
- Stuart & Sundeen. (1998). *Buku saku keperawatan jiwa*, A. Yani S (ed.), EGC, Jakarta.
- Stuart, G.W. (2012). *Buku Saku Keperawatan Jiwa*, Edisi 5. Jakarta. EGC.
- Wade, C. & Tavis, C. (2010), *Psikologi*, 9 edn, Penerbit Erlangga, Jakarta.
- Widayarti. (2011), "Pengaruh bacaan Al Quran terhadap intensitas kecemasan pasien sindroma koroner akut di RS Hasan Sadikin," thesis, Universitas Padjajaran.
- Wigram, T. & Gold, C. (2006), "Music therapy in the assessment and treatment of autistic spectrum disorder: Clinical application and research evidence," *Child: Care, Health and Development*, vol. 32, no. 5, hal. 535–42.
- Zahrofi, D.N., Maliya, A. & Listyorini, D. (2014), "Pengaruh pemberian terapi murottal Al Quran terhadap tingkat kecemasan pada pasien hemodialisa di RS PKU Muhammadiyah Surakarta," *Skripsi*, Universitas Muhammadiyah Surakarta.