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The Effectiveness of Self-Surrender Exercise and *Dzikir* Therapy in Improving the Quality of Sleep in A Nursing Home in Pasuruan, Indonesia Road

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Abstract--- *Old age is a phase of life that is often associated with decline. Physiological changes and psychological setbacks in old age can lead to a decrease in the quality of sleep or sleep disturbance. The practice of surrender is a method that combines relaxation and repetitive prayer. It eliminates anxiety and worry and provides a feeling of peace when done well. Dhikr relaxation is a form of passivity or resignation by using words that are repeated and which result in composure and relaxation. The purpose of this study was to investigate the effectiveness of self-surrender training and dhikr therapy in improving the quality of sleep for older people in the PSTW nursing home in Pasuruan, Indonesia. The study used a quasi-experimental design and purposive sampling. The population in this study were all older people in the PSTW nursing home in Pasuruan. The data were analyzed with the Mann-Whitney statistical test to distinguish between the two groups in the study. A Wilcoxon signed ranks test was used to determine the difference between the two paired samples. The results showed that before treatment, the majority of people (52%) reported poor sleep quality, but after treatment with self-surrender and dzikir therapy, 88.0% of people reported a good quality of sleep. The Wilcoxon signed ranks test, and the Mann-Whitney Test confirmed that the results were statistically significant. Self-surrender training and dhikr therapy can affect physical and psychological calmness. This calmness comes from within, in the form of words, short sentences, or thoughts that gave peace of mind and improved the quality of sleep for older people in the PSTW nursing home in Pasuruan.*

Keywords--- *Self-surrender, Sleep Quality, Dzikr Therapy, Older People.*

I. INTRODUCTION

Old age is a phase of life that is often associated with decline. In this phase, people often face various kinds of setbacks, including physical problems and a decline in cognitive functions that result in older people being seen as people who need a lot of help in daily life (Hidayat, S. 2014).

A survey conducted by Administration of Aging cit Papalia et al. (2009) found that the number of people over 60 years old will decrease in developed countries but will continue to increase in developing countries. The number of people over 60 years old in 2000 was estimated at 605 million worldwide. The global increase in older people means that by 2050, for the first time, the number of older people in the world will exceed the number of children under 14 years old.

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The World Health Organization (WHO) estimates that the increase in the number of older people in the future will take place, especially in developing countries such as Indonesia. It has been estimated that Indonesia will have the fourth-highest number of older people, after China, India, and the United States. It has also been estimated that in the next ten years, the number of older people in Indonesia will exceed 10 million (Sabri R., Hamid A.Y.S., Sahar J., Besral, 2019).

Physiological changes in older people appear in the nervous system (such as shrinking of sensory nerves), leading to decreasing function and slowness in responding and reacting, especially to stress. Hearing loss from atrophy of the tympanic membrane and stiffness in the hearing bones also occurs. In addition to physiological changes, there are also often psychological difficulties, such as decreased sleep quality or sleep disorders. After 65 years old, 13% of men and 36% of women have been reported to need more than 30 minutes to fall asleep (Nugroho, 2000).

In research conducted with ten people in 2012 by Tommy Kurniawan at a nursing home of Tresna Werdha Magetan, it was found that eight of the ten people had sleep disorders from psychological stress. Of these ten people, six had sleep disorders due to health problems, and four people had sleep disorders for non-health reasons. Two of the ten people had sleep disorders due to diet and nutrition and eight people had sleep disorders that were not related to diet and nutrition.

Everyone’s resting needs are different and depend on sleep quality, health status, activity patterns, lifestyle, and age. The resting needs of a chronically ill patient are very different from those of healthy people of the same age range because of the effects of the illness or pain (Potter & Perry, 2005). Factors affecting sleep quality include illness, environment, motivation, fatigue, anxiety, alcohol, and drugs (Tarwoto & Martonah, 2010).

A preliminary study at the PSTW nursing home in Pasuruan was conducted in January 2018. The study involved ten older people, six (60%) of whom had difficulty in sleeping because they thought a lot about their children, and they felt disfresh when they were sleeping. Four people (40%) said they often woke up at night and felt uncomfortable when sleeping.

Some impacts that can be caused by sleep disruption and changes in sleep quality are a decrease in the quality of life, disturbed daily activities, and reductions in the effectiveness of the body's immune system (Kaku et al., 2012). People need enough quality sleep to produce energy for the recovery processes of the body's cells; for example, having high-quality sleep can shorten the length of time in hospital. Conversely, if sleep is disturbed, the regeneration of the body’s cells will less effective, leaving the body more susceptible to disease (Friese, 2007; Safrudin et al., 2009).

Therapies to overcome sleep disorders can be pharmacological or non-pharmacological. Pharmacological therapy involves administering antidepressant drugs, but long-term use of antidepressant drugs can have negative side effects. Non-pharmacological therapy involves modifying the behavior and environment of the person. Behavioral modification can include avoiding conversations near patients who are sleeping and applying a "quiet time" during certain hours, for example, at 02.00 to 04.00 and 14.00 to 16.00 (Eliassen and Hopstock, 2011). A dark, calm, comfortable environment is ideal for sleeping. Nurses try to create this environment so that patients can sleep

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well (Daneshmandi et al., 2012).

One form of behavior modification is the practice of self-surrender. It combines a method of relaxation with repetitive prayer and can eliminate anxiety and worries and give a feeling of peace if done well. In addition to resignation exercises, relaxation intervention can also be given by dzikr. In Islam, dzikr is a form of surrender to Allah SWT. The relaxation from dzikr is a form of passivity or resignation by using repeated words, giving rise to a calm relaxation response. The method developed by Benson (2000) involved relaxation combined with conviction, and this study found that repeating a selected word could evoke a relaxed state. Sleep disturbances are caused by internal conflicts that ultimately cause stress and can be relieved by self-acceptance, non-resistance, and total passivity. In this condition, the effects of the sympathetic nervous system, which causes tension, can be reduced, and the activity of the parasympathetic nervous system is increased.

Consideration of these previous studies led us to become interested in the effectiveness of self-surrender and dzikr exercises in improving the quality of sleep in older people in the PSTW nursing home in Pasuruan, Indonesia.

II. METHODOLOGY

This research used a quasi-experimental design. The population in this study comprised all the older people living in the PSTW nursing home in Pasuruan, Indonesia. The sampling technique used purposive sampling with inclusion criteria, namely older people who had lived in the PSTW nursing home for at least six months, who were able to communicate easily, who were not in a critical condition, and who were willing to participate in the study. Two groups were studied, a treatment group and a comparison group (control), each with 15 people. The data were analyzed using the Mann-Whitney statistical test to distinguish the two research groups. Then a Wilcoxon signed ranks test was used to determine the difference between two pairs of samples, with a significance level of $p < 0.05$ (Nursalam, 2013).

III. RESULTS

Age of Participants

Table 1. Age distribution frequency of participants in the PSTW nursing home in Pasuruan in 2019

No	Age	Frequency	Percentage (%)
1.	Middle Age	1	2.0
2.	Elderly	23	46.0
3.	Old	19	38.0
4.	Very Old	7	14.0
Total		**50**	**100**

Source: Primary data

Table 1 shows that the largest number of participants were classed as elderly (46.0%), with a further 28% classed as old. Only one person was classed as being in middle age.

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Gender of Participants

Table 2. Gender distribution frequency of participants in the PSTW nursing home in Pasuruan in 2019

No	Gender	Frequency	Percentage (%)
1.	Male	18	36.0
2.	Female	32	64.0
Total		50	100

Source: Primary data

Table 2 shows that the majority of participants were female (64.0%).

Residence Period of Participants in a Nursing Home

Table 3. Distribution frequency of participants in the PSTW nursing home in Pasuruan in 2019

No	**Residence period**	**Frequency**	**Percentage (%)**
1.	1–3 years	19	38.0
2.	4–6 years	23	46.0
3.	7–9 years	7	14.0
4.	>9 years	1	2.0
Total		**50**	**100**

Source: Primary data

Table 3 shows that the largest number of participants had been living in the nursing home for 4-6 years (46.0%), and only one had been there for more than nine years.

Home Region of Participants

Table 3. Distribution frequency of participants in the PSTW nursing home in Pasuruan in 2019

No	Homes region	Frequency	Percentage (%)
1.	Seruni	7	14.0
2.	Cendana	5	10.0
3.	Anggrek	7	14.0
4.	Dahlia	7	14.0
5.	Mawar	8	16.0
6.	Kenanga	5	10.0
7.	Kemuning	3	6.0
8.	Melati	4	8.0
9.	Teratai	2	4.0
10.	Isolasi	2	4.0
Total		50	100

Source: Primary data

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Table 4 shows that participants came from ten different regions. There were similar numbers of people from six of the ten regions and smaller numbers from the other four regions.

Blood Pressure

Table 5. Blood pressure distribution frequency of participants in the PSTW nursing home in Pasuruan in 2019

No	Blood Pressure	Frequency	Percentage (%)
1.	Optimal	8	16.0
2.	Normal	9	18.0
3.	Normal Tinggi	10	20.0
4.	Hipertensi Derajat 1	16	32.0
5.	Hipertensi Derajat 2	7	14.0
Total		50	100

Source: Primary data

Table 5 shows the largest blood pressure category was hypertension degree 1 (32.0%), with a smaller proportion classed as hypertension degree 2 (14.0%).

Quality of Sleep Before and After Treatment

Table 6. Sleep quality distribution frequency before and after treatment of participants in the PSTW nursing home in Pasuruan in 2019.

No	**Quality of Sleep**	**Before treatment**		**After treatment**	
		∑	**%**	∑	**%**
1.	Good	12	48.0%	22	88.0%
2.	Poor	13	52.0%	3	12.0%
Total		**25**	**100**	**25**	**100**

Wilcoxon signed ranks test Sig. 0.002 (<0.05)

Source: Primary data

Table 6 shows that before treatment, most participants had a poor quality of sleep (52.0%). After treatment, a large proportion of the respondents had a good quality of sleep. (88.0%). A Wilcoxon signed ranks test gave a significance of 0.002 (< 0.05), and it was concluded that self-surrender and *dzikr* therapy were effective in improving the quality of sleep of older people in the treatment group.

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Quality of Sleep in the Treatment and Control Groups

Table 7. Sleep quality distribution frequency for the treatment and control groups for participants in the PSTW nursing home in Pasuruan in 2019.

No	Quality of Sleep	Before treatment		After treatment	
		∑	%	∑	%
1.	Good	22	88.0%	12	48.0%
2.	Poor	3	12.0%	13	52.,0%
Total		**25**	**100**	**25**	**100**
Mann-Whitney Tes Sig. 0.003 (< 0.05)					

Source: Primary data

Table 7 shows that the majority of the participants in the treatment group reported good quality sleep (88.0%) after treatment, while the proportion of participants in the control group who reported good quality sleep was much smaller and unchanged (48.0%). A Mann-Whitney Test gave a significance of 0.003 (< 0.05). Consequently, it was concluded that self-surrender and *dzikr* therapy were effective in improving the quality of sleep for older people.

Discussion

This study found that the sleep quality of the majority of participants before treatment was poor (52.0%), but after being treated with self-surrender and *dzikr* therapy, the large majority had good quality sleep (88.0%). The majority of respondents were female (64.0%). Women have many social and environmental activities such as preparing food, helping to cook, and helping to clean rooms and these additional activities can lead to a decrease in sleep quality. Environmental conditions that disrupt sleep in older people include noise, an uncomfortable bed, and lighting that is too bright (Brooker, 2009).

Inadequate sleep and poor sleep quality tend to result in impaired physiological and psychological balance. The physiological impacts include decreased daily activity, weakness, poor neuromuscular coordination, slow healing processes, a decrease in the functioning of the immune system, and instability of the vital signs (Briones et al., 1996; Dawson, & Lack, 2000).

Participants in the PSTW nursing home in Pasuruan had a variety of different characteristics. Some participants had blood pressure problems, with 32.0% classed in hypertension degree 1 and 14% in hypertension degree 2. The main causes of sleep disorders involve high levels of interference, such as hypertension, pain, shortness of breath, and cough. Hypertension causes pain making the client wake up and leading to difficulties in maintaining sleep.

Nursing care facilitates and improves the quality of sleep for older people by providing comfort and eliminating the causes of sleep disturbance (Dağlar et al. 2018). However, nursing activities such as drug administration and measurement of vital signs interfere with sleep but are a necessary part of the care needed to relieve the symptoms

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of diseases that interfere with sleep (Simpson, Lee & Cameron, 1996).

The *Wilcoxon signed ranks test* (significance = 0.002 (<0.05)) confirmed that the differences between the treatment and control groups were statistically significant. In other words, self-surrender and dzikr therapy were effective in improving the quality of sleep for older people. Sleep physiology regulates sleep activities because cerebral mechanisms alternately activate and suppress the brain center causing sleep or waking. One of the sleep activities is regulated by a reticular activation system that sets all levels of central nervous system's activities, including regulation of alertness and sleep (Jonathan Desaulniers, Sophie, Sylvie, and Desgagné, 2018).

Self-surrender and *dzikr* therapy affect physical and psychological well-being. Self-surrender training comes from within the person in the form of words, short sentences, or thoughts that can make the mind calm. This is a new concept because, for some centuries, it was thought that body functions operate separately from thoughts.

This relaxation technique works through the interaction of physiological and psychological responses (Hidayat, Hannan, and U. R. 2018). With this therapy, it is possible to divert our body's response with conscious instructions from ourselves and so help to alleviate the effects of stress that disrupt the quality of sleep. Interestingly, Florence Nightingale wrote about the role of the mind on the body in 1859 in her book Notes On Nursing. By confirming the benefits of self-surrender exercises, old concepts about the relationship of the mind with bodily responses can again play a role in nursing care.

The results of this study found that changes in the quality of sleep for the treatment group were statistically significant (Mann-Whitney Test: significance = 0.003 (<0.05)). The large majority of older people (88.0%) reported good quality sleep after self-surrender and *dzikr* therapy, compared with 48.0% for the control group. According to Hidayat (2014), when used as a healing technique, *dzikr* produces several medical and psychological effects and affects the balance of serotonin and norepinephrine levels in the body. This phenomenon is a natural analog of morphine that works in the brain and causes the heart and mind to feel calmer.

Surrender training is a complementary therapy in which self-suggestion stimulates the brain to release neurotransmitters, chemicals in the brain, encephalin, and endorphins, which improve mood and so can change an individual's acceptance of pain or other physical symptoms (Hidayat and EDM 2018).

Self-surrender training is a method that combines relaxation and remembrance with a focus on breathing exercises and words contained in remembrance to evoke a relaxation response. The relaxation response is expected to improve stress symptoms and alleviate the symptoms of depression, leading to a higher quality of sleep for older people.

Dzikr can provide a relaxing effect by helping individuals form perceptions other than fear. It helps by encouraging the belief that any stressor can be dealt with with the help of Allah SWT. When a Muslim is accustomed to *dzikr*, they feel close to Allah, and in his care and protection, which then arouses self-confidence, strength, security, and happiness. *Dzikr* makes someone feel calm and suppresses the sympathetic nervous system and activates the parasympathetic nervous system (Hidayat, 2014)

Nurses should pay special attention to older people as there is a natural process of gradual reduction in the ability

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of tissues to repair or replace themselves and maintain normal structure and function to survive infection and repair any damage suffered (Nugroho, 2012).

IV. CONCLUSION

a. Before treatment in the PSTW nursing home in Pasuruan, most of the participants reported poor quality sleep (52%), but after treatment, a large majority of older people (88%) had a good quality of sleep.

b. Surrender training and *dzikir* therapy were effective in improving the quality of sleep for older people in the PSTW nursing home in Pasuruan

Suggestions

a. For Older People

Alternative options for overcoming sleep disturbance in the PSTW nursing home in Pasuruan should be provided, alongside any physiological therapy being undertaken.

b. For Nursing Professionals

Providing a reference in providing nursing care independently to patients experiencing sleep rest disorders, and can facilitate therapeutic communication between nurses and clients

c. For Pasuruan nursing home

This research could help to determination policies when preparing standard operational procedures.

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