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SPIRITUAL EMOTIONAL FREEDOM TECHNIQUE TO IMPROVE SLEEP QUALITY FOR POSTPARTUM MOTHERS

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Abstract

Background: Sleep quality disorders are a problem that postpartum mothers often experience. The postpartum is the period after giving birth or commonly called the puerperium, which is the period after giving birth that is needed to restore the uterine organs. Post-partum mothers experience sleep quality disorders both due to new roles and changes during the postpartum period. Sleep quality that is not treated properly can bring changes that can affect physical and psychological problems. Thus, it needs to interfere with the sleep quality of post-partum mothers.

Objectives: This study aimed to prove that the Spiritual Emotional Freedom Technique (SEFT) was also beneficial in improving sleep quality in postpartum mothers.

Methods: This study used a quasi-experimental pre-and post-test design with a control group. The research subjects were 56 postpartum mothers treated at Sultan Agung Islamic Hospital Semarang in June and September 2021, divided into intervention and control groups. The intervention was carried out twice a week for four weeks, with a SEFT duration of 20 minutes. The control group received standard therapy in the form of dhikr therapy. The Pittsburgh sleep quality index (PQSI) questionnaire used seven assessment components to measure research outcomes. The univariate analysis used central tendency in the form of the mean, median, and standard deviation. The different test of sleep quality before and after the intervention in the intervention group was carried out by the Wilcoxon match pair test (abnormal distribution), while the control group used paired t-test (normal distribution). For the mean difference test between groups, it used Mann Whitney test.

Results: The mean score of sleep quality in the intervention group before treatment was 10,86 + 1,79 (poor sleep quality) and after treatment decreased significantly ($p=0,00$) to 5,25 + 1,46 (still in poor sleep quality). The quality of sleep in the control group before treatment was 10,89 + 1,89 and after the intervention was 10,71 + 2,35 with $p=0,47$. The components of subjective sleep quality, sleep latency, sleep duration, and sleep disturbance in the intervention group were significantly lower than in the control group.

Conclusion: The SEFT intervention can significantly improve sleep quality in postpartum mothers, but it is still in the poor category. Besides, the sleep quality score can be considerably improved, especially in four of the seven components.

Keywords: *Spiritual Emotional Freedom Technique, Sleep quality, Postpartum*

INTRODUCTION

Postpartum (puerperium) is the period after childbirth to restore the reproductive organs, which last for six to eight weeks. Postpartum mothers experience various health problems, including decreased sleep quality (Bobak, Lowdermilk, & Jensen, 2014)

Mindel, Sadeh, Kwon, & Goh (2013) reported that about 54% of postpartum mothers had problems with poor sleep quality, and this condition was also reported 50,9% in Malaysia and 77,8% in Japan, the fundamental Health Research in 2018 showed the prevalence of sleep problems in postpartum mothers was 78,7% and Central Java 57.6% (Kementerian kesehatan RI, 2018). Sari (2020) research described that postpartum mothers who experience mild sleep disorders were 45,16%, 29,03%, moderate sleep disorders, and 25,81% for severe sleep disorders.

Another study reported that the mean napping of mothers during the puerperium was 30-120 minutes, with a mean value of 67,14±24,37 minutes (Fatmawati & Hidayah, 2019). Postpartum mothers should have a nap time of 1 to 2 hours and an entire 7-8 hours' sleep schedule (Marni, 2012).

Various efforts have been made to overcome sleep quality problems in postpartum mothers. One of the efforts was safer non-pharmacological methods, such as giving lavender aromatherapy, yoga exercise, physical exercise, spiritual healing, Benson's relaxation, progressive muscle relaxation (ROP), and laughter therapy (Laura, 2015; Rahman & Handayani, 2019; Widhiyanti, 2017).

The spiritual emotional freedom technique (SEFT) is a therapy that uses spiritual elements to reduce psychological and physical problems caused by emotions (Safitri & Sadif, 2013). SEFT therapy was developed from the emotional freedom technique (EFT), which

combines the science of acupuncture with behavioral techniques in psychology (Zainuddin, 2012a). This therapy uses the fingers to tap energy points with a certain number of beats and sequences, performed in conjunction with positive affirmations, several relaxation techniques, and visualizations (Clond M, 2016). SEFT has advantages, including having no side effects, being easy to apply, and anyone can conduct (Vangsapalo, 2010; Zainuddin, 2012b).

The provision of SEFT therapy is expected to impact postpartum mothers, especially on sleep quality positively.

Objective: This study aims to prove whether SEFT improves sleep quality in postpartum mothers.

METHODS

Study Design

This study used a quasi-experimental pre-and post-test design with a control group.

Setting

The study conducted in Sultan Agung Islamic Hospital, Semarang on 2021.

Research Subject

The research subjects were 56 postpartum mothers treated at Sultan Agung Islamic Hospital, Semarang. This study used a randomized sampling technique.

The research time span was four weeks. In collecting research data, the researchers divided it into 2 groups, namely the control group and the intervention group where the data collection in the intervention group was given treatment while the control group was not. In determining research data collection, the researcher took a sample of the control group first, and after the sample was fulfilled, the sample was taken in the intervention group.

The inclusion criteria in this study were postpartum mothers who were legally married with the desired pregnancy, able to participate in the research for four weeks, underwent normal delivery, had a good level of consciousness, and had passed the psychological adaptation phase of taking hold. In contrast, postpartum mothers with Sectio Caesarea passed the adaptation phase of taking hold. The exclusion criteria from this study were: postpartum mothers who received drugs to treat sleep disorders, experienced postpartum bleeding, infection, postoperative pain, Sectio Caesarea, or severe perineal pain.

The researcher explained the objectives, benefits, and research methods to respondents who met the inclusion criteria and provided an informed consent form. Besides, the researcher divided the respondents into intervention and control groups.

Instruments

The sleep quality of research subjects was measured using the Pittsburgh sleep quality index (PQSI) questionnaire, which consists of seven components, namely: 1) Subjective sleep quality, 2) Sleep latency, 3) Sleep duration, 4) habitual sleep efficiency, 5) Sleep disturbance, 6) Using medication, and 7) Daytime dysfunction. Each component has a value of 0-3 (score 0: very good, 1: quite good, 2: quite bad, 3: very bad), and from the sum of the scores for the seven components, a score of 5 or more indicates a poor sleep quality (Lebis & Wahyuni, 2019).

This study tested the validity and reliability of research questionnaires by using standardized questionnaires in the form of Indonesian. Hapsari's research stated that the reliability of the translated PSQI instrument obtained a result of 0.753 for the seven components of sleep quality. Hair et al., (2010) stated that the instrument can be accepted if the loading value of each item is ≥ 0.4 . Research by Contreras, et al., (2014) explained that the questionnaire obtained a loading value of each item that was ≥ 0.4 , so the questionnaire was valid. Based on these results, the researcher did

not test the validity and reliability of the instrument because the researcher used standard instruments that have been used in previous studies.

Intervention

The intervention group was given SEFT therapy for 20 minutes, while the control group was given standard hospital therapy in the form of dhikr therapy. The intervention was carried out eight times for four weeks to continue at the patient's home. Measurement of sleep quality in the 2 study groups was carried out two times, before and after the intervention.

Data Analysis

The test of different sleep quality before and after the intervention in the group was carried out using the Wilcoxon match pair test (abnormal distribution). At the same time, it was carried out with the paired t-test (normal distribution) in the control group. The mean difference test between groups was carried out with Mann Whitney.

Ethical Consideration

Research approval was given by the Medical Research Ethics Commission (KEPK) of Sultan Agung Islamic Hospital with No. 119/EC/KEPK/2021. The subjects who agreed to participate in the study signed informed consent of their own accord without coercion from any parties. This study does not result in any risk or loss for the respondents. The respondents can withdraw from the study when they feel unsafe during the research process.

RESULTS

The respondents (56 postpartum mothers) completed this study. The characteristics of respondents from the two groups are presented in Table 1. There is no significant difference between the two groups regarding age, education level, employment status, and parity.

Table 1. The Characteristics of Group Respondents in Semarang at 2021

Characteristics	Control Group		Intervention Group		P
	N	%	N	%	
Age					0,53
20-35 years	26	92,8	26	92,8	
< 20 years	1	3,6	1	3,6	
>35 years	1	3,6	1	3,6	
Total	28	100	28	100	
Education					0,45
Elementary	3	10,7	2	7,1	
Junior	8	28,6	7	25	
Senior	11	39,3	13	46,4	
Undergraduate	6	21,4	6	21,4	
Total	28	100	28	100	
Employment Status					1,00
Work	12	42,9	14	50	
No work	16	57,1	14	50	
Total	28	100	28	100	
Parity					1,00
1	14	50	14	50	
2	7	25	7	25	
3	5	17,9	5	17,9	
4	2	7,1	2	7,1	
Total	28	100	28	100	

Sources: Primary Data of Questionnaires, 2021

In the intervention group, after being given SEFT, 57,1% felt that the quality of sleep was in the excellent category, 89,3% needed time to start sleeping for about 16-30 minutes, 64,3% slept for 6-7 hours, 96,4% at least a week. Once still experienced sleep disturbances at night, 92,9% did not use drugs to help sleep, and 78,6% still experienced sleep disturbances during the day at least once a week. While in the control group, the results showed that at the end of the study, mothers were still unable to fall asleep for 30 minutes since lying down, still often woke up in the middle of the night or woke up too early to breastfeed, changed diapers, and felt the atmosphere was not conducive.

Table 2. Sleep Quality Scores Before and After the Intervention in Groups of Respondents in Semarang at 2021

	Intervention Group		P
	Before mean ± SD	After mean ± SD	
Sleep quality score			
	10,86 ± 1,8	5,25 ± 1,4	0,00
	Control Group		P
	Before mean ± SD	After mean ± SD	
	10,89 ± 1,9	10,71 ± 2,3	0,47

Sources: Primary Data of Questionnaires, 2021

Table 2 compares sleep quality scores before and after the intervention in the intervention and control groups. The mean sleep quality score in the intervention group before being given SEFT was 10,86 ± 1,8 (including the category of poor sleep quality). After being given SEFT, it decreased significantly (p= 0,00) to 5,25 ± 1,4, although still included in the category of poor sleep quality. The mean score of sleep quality before the treatment in the control group was 10,89 ± 1,9. At the end of the study, it decreased slightly to 10,71 ± 2,3 (p= 0,47) or was still in the category of poor sleep quality.

Table 3. Different Test of Mean Scores on Sleep Quality for Two Groups

Sleep quality score	Intervention Group	Control Group	p
	mean ± SD	mean ± SD	
Before Intervention	10,86 ± 1,8	10,89 ± 1,9	0,74
After Intervention	5,25 ± 1,4	10,71 ± 2,3	0,00

Sources: Primary Data of Questionnaires, 2021

Table 3 compares sleep quality scores in the intervention group with the control group, both before and after the intervention. Sleep quality score after SEFT intervention was significantly smaller in the intervention group than the control group who received standard therapy in the form of dhikr therapy (p= 0,00).

Table 4. The Mean Difference Test for Each Component of the Sleep Quality Score After Intervention

Sleep Quality Score for Each Component	Intervention Group	Control Group	<i>p</i>
	mean ± SD	mean ± SD	
Subjective sleep quality	0,50 ± 0,694	2,54 ± 0,838	0,00
Sleep latency	0,89 ± 0,315	1,96 ± 0,744	0,00
Sleep duration	0,71 ± 0,535	1,89 ± 0,832	0,00
Habitual sleep efficiency	0 ± 0	0 ± 0	1,00
Sleep disturbance	0,96 ± 0,189	2,14 ± 0,651	0,00
Using medication	0,11 ± 0,416	0,32 ± 0,945	0,57
Daytime disfunction	2,07 ± 0,466	1,86 ± 0,525	0,13

Sources: Primary Data of Questionnaires, 2021

Furthermore, the analysis was used to compare each component of the sleep quality score after the intervention (Table 4). Based on comparing the 7 component scores, the components of subjective sleep quality, sleep latency, sleep duration, and sleep disturbance in the intervention group were significantly lower than the control group.

DISCUSSION

The respondents in this study had characteristics including age, education level, employment status, and parity, which were not significantly different. So, it could be assumed that no confounding variables needed further analysis. Similarly, the score of sleep quality before treatment both groups had mean scores included in the category of poor sleep quality. In line with the results of this study, Dorheim, Bondevik, Eberhard-Gran and Bjorvatn (2009) and (Laura, 2015) who used the same measuring instrument (PSQI), also reported that postpartum mothers mostly had poor sleep quality.

Poor sleep-in postpartum mothers can be physiological, caused by irregular sleep patterns due to taking care of the baby, fatigue, parity, and age. Poor sleep quality is also associated with depression: lack of relationship with a partner, previous depression, depression during pregnancy, and stressful life (Dorheim et al, 2009). family support has a positive effect on reducing the incidence of postpartum depression (Lebis & Wahyuni, 2019).

The intervention results showed that SEFT could significantly improve the sleep quality of postpartum mothers rather than the control group who received standard intervention in the form of dhikr therapy from the Islamic hospital. These results are also in line with previous studies conducted on the elderly, where there was a significant improvement in sleep quality before and after being given SEFT (Arnata & Lestari, 2018).

SEFT therapy contains calming words accompanied by a prayer to calm the body and mind. Besides, SEFT makes breathing and heart rate more stable, and blood circulation becomes smoother. It was easier to initiate sleep (Arnata & Lestari, 2018).

The previous research reported that oxytocin massage in the form of massage along the spine to the 5-6th ribs succeeded in improving the quality of sleep of postpartum mothers (Dina Zakiyyatul Faudah, 2017). In SEFT, tapping is done by lightly tapping on 12 meridian points of the body to stimulate the pituitary gland to release endorphins, which gives a calm effect and a feeling of happiness. (Arnata & Lestari, 2018; Susilawati & Kasron, 2018 Church 2012 and Stapleton 2020) proved that tapping on SEFT can significantly reduce the hormone cortisol, which plays a role in stress and produces beneficial changes (Church, 2013; Stapleton P. Crighton G & Sabot D, 2020).

The mean score of sleep quality after the SEFT intervention for eight weeks was used the PSQI. Although the result was significantly decreased, it was still included in poor sleep quality. The analysis of each component of seven PSQI components showed that the four

component scores, namely: subjective sleep quality, sleep latency, sleep duration, and sleep disturbance, in the intervention group were significantly lower than the control group. It concluded that SEFT therapy helps improve sleep quality on these four components.

Cole, Motivala, Buysse, Oxman and Levin (2006) conducted the validation results from the PSQI and indicated that a minimum of 3 factors are required to determine the presence of sleep disturbances. The components of sleep efficiency, perceived sleep quality, and daily disturbances have been identified as the most significant factors in determining the presence of sleep disturbances subjectively. The results of this study indicate that SEFT can improve four components of sleep disturbances, 2 of which are the same as the sleep disturbance factors that Cole has identified, namely subjective/perceived sleep quality and sleep/daily disturbances.

SEFT contains elements of tapping performed on the body meridians. Besides, this study succeeded in reducing scores on the sleep latency component significantly compared to controls. Massage performed on postpartum mothers also positively affects fulfilling their sleep rest needs. Previous studies stated that the most dominant factor after receiving massage intervention was the sleep latency component, where postpartum mothers fell asleep faster. The mean sleep duration was more than 7 hours (Dina Zakiyyatul Faudah, 2017).

In this study, the control group was no improvement in sleep quality occurred. The results of the frequency distribution analysis showed that mothers were unable to fall asleep for up to 30 minutes from lying down. They often woke up in the midnight or very early morning, woke up to breastfeed, change diapers for baby, and felt the unconducive atmosphere.

Some limitations of this study include the use of a quasi-experimental technique. There was no blindness in distinguishing the intervention group from the control group that might affect the measurement results of the study outcome. Besides, the Hawthorn effect may occur in the intervention group given the

calm and comfortable feeling provided by SEFT itself.

CONCLUSION

The results of this study were consistent with the benefits of SEFT from previous studies. SEFT is proven to benefit postpartum mothers who generally experience sleep quality disorders. The SEFT intervention is easy and can be done independently. It can be done twice a week for eight weeks at night before going to bed. It has been shown to significantly reduce the total score of sleep quality disorders in postpartum mothers, even though the score is not included in good sleep quality. After the intervention, the four components that can be improved are subjective sleep quality, sleep latency, sleep duration, and sleep disturbance.

SUGGESTIONS

Future researchers should use a double-blinded randomized controlled trial design where the control group also received an intervention that was similar and disguised as the intervention group, which is expected to increase the validity and reliability of the study. The increased dose of the SEFT intervention also needs to be considered for further research. Although there was a significant decrease in the total score of sleep quality disorder from the intervention group, it was still included in poor sleep quality.

Besides, future study needs to compare the SEFT method with other methods to improve sleep quality for postpartum mothers.

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DECLARATION OF CONFLICTING INTEREST

The authors have consented and no conflicting interest.

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AUTHOR CONTRIBUTION

Nana Andriana: Arrange research implementation, conduct literature review, collect data, compile manuscripts

Tri Nur Kristina: Analyzing data, compiling manuscripts.

Dwi Susilawati: Analyzing data, compiling manuscripts.

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