

THE EFFECT OF AUDIO HYPNOTHERAPY ON SLEEP QUALITY

Rut Eli Hadadsha & Angelina Enny Yulyanti
Faculty of Psychology
Program Study Masters of Psychology Profession
Persada Indonesia University Y.A.I. Street Jakarta INDONESIA

ABSTRACT

This study aims to evaluate the effect of hypnotherapy audio on sleep quality. Hypnotherapy is a therapeutic technique that uses suggestions to achieve a state of deep relaxation, which is expected to improve sleep quality. The research method used was an experiment with a pretest-posttest design. Participants in this study were 30 individuals with sleep disorders, who were divided into two groups: an experimental group that received hypnotherapy audio and a control group that did not receive intervention. Sleep quality was measured using the Pittsburgh Sleep Quality Index (PSQI) before and after the intervention. The results showed that there was a significant increase in sleep quality in the experimental group compared to the control group. These findings indicate that hypnotherapy audio can be an effective intervention to improve sleep quality. Further research is needed to confirm these findings and explore the mechanisms behind the effects of hypnotherapy on sleep.

Keywords: Hypnotherapy Audio, Sleep Quality, Pittsburgh Sleep Quality Index (PSQI), Relaxation, Sleep Disorders.

INTRODUCTION

Everyone must have fallen asleep. In fact, we can spend a third of our time sleeping. Based on global research on sleep, the average adult sleeps for 6.9 hours on weekdays and 7.7 hours on holidays (Chaput et al., 2018). Getting enough sleep is very important for humans. Lack of sleep can affect the body's immune system, heart disease, and other health conditions, even people who sleep less than 6 hours per day are 70% more likely to die than those who get enough sleep for 7 to 8 hours each night (Ikehara in Hoeksema, 2014). Not only does it affect physical health, sleep also has a psychological impact. Sleep affects memory, thinking ability, decision-making ability, and also affects academic achievement. Severe lack of sleep can also cause irritability, unstable emotions, perceptual distortions, and mild hallucinations (Harvey in Hoeksema, 2014). Sleep deprivation, which is reported to be associated with insomnia, is a common problem of people living in industrialized countries and has serious consequences such as work accidents and road accidents (Liu et al., 2020).

Getting enough sleep, meaning neither too little nor too much, is a human need. In addition to lack of sleep, too much sleep can also have a negative effect on a person's physical and psychological health. A meta-analysis study on the relationship between sleep duration and all causes of death in the elderly found that sleeping too long also increased the cause of death, especially in women, while lack of sleep significantly increased the cause of death in men (He et al., 2020). Therefore, the key to beneficial sleep is the right duration, which is neither too little nor too much.

In addition to the duration or quantity of sleep time, another important thing is the quality of deep sleep. Based on the 2023 Indonesian Sleep Report, the majority of Indonesians have low quality deep sleep. In the 18-34 age range, sleep quality was recorded as the best with 55.8

movements per hour (mph). Meanwhile, those who are older have worse sleep quality, namely 67.3 mph. Indonesia also has varying sleep times. People in Jakarta, for example, have not rested until 00.09. This is because lifestyle does affect a person's sleep patterns. People who live in urban areas have worse sleep quality than those who live in rural areas (Ohida et al., 2001).

Given the importance of quality sleep, there are many ways to improve sleep quality. For example, by exercising regularly, using time efficiently, dealing with stress, etc. Another way that can be used to help improve sleep quality is sleep hypnosis. Sleep hypnosis is the use of hypnotherapy for sleep problems. The goal of sleep hypnosis is not to make someone sleep during hypnosis, but to change negative thoughts or behaviors that affect sleep patterns so that someone can sleep with better quality when hypnotherapy is finished.

Sleep quality is a measure of how easy it is for a person to start sleeping and to maintain sleep. Adequate sleep quality can be determined from how a person prepares their sleep pattern at night such as the number of hours of sleep (sleep quantity), sleep depth factor (sleep quality), ability to stay asleep, and ease of falling asleep without medical assistance (Lai in Wavy, 2008). Good sleep quality can provide a feeling of calm in the morning, a feeling of energy, and no complaints of sleep disorders. In theory, the number of normal sleep hours is in the range of 6-8 hours in 24 hours (Potter et al., 2022), but there are also those who report or state that they feel satisfied with their sleep and their sleep quality is good even though the number of hours of sleep is 4 hours a night and a nap is only 30 minutes.

Each person has different sleep quality, because there are several factors that influence it. The quality of sleep is influenced by several factors such as the following:

a. Health Condition

When sleeping, a person needs a comfortable condition for him. A person who is not in good health or is experiencing illness/pain will not sleep well. A person with respiratory problems can also disrupt his sleep. For example, shortness of breath, people with congestion in the nose, sinus drainage or other respiratory disorders make it more difficult for someone to fall asleep (Kozier, 2004).

b. Environment

The physical environment where a person is can affect his sleep. The size, hardness, and position of the bed affect the quality of sleep. Discomfort from environmental temperature and lack of ventilation can affect the quality of sleep (Kozier, 2004). A safe and comfortable environment for a person can speed up the process of sleep. Conversely, an environment that is not safe and comfortable for a person can cause a loss of calm, thus affecting the sleep process.

c. Physical Condition

Physical condition can affect the quality of sleep. Increased physical exercise will improve sleep quality (Harkreader & Hogan, 2004), and excessive fatigue due to tiring activities actually makes it difficult to sleep (Possttemir P. A., 2005). Moderate fatigue can still make someone sleep soundly. Excessive fatigue will cause a shorter REM sleep period

d. Psychological Conditions

Psychological conditions that experience stress will cause anxiety which will interfere with sleep quality. Anxiety and depression that occur continuously can interfere with sleep. Anxiety can increase norepinephrine levels through stimulation of the sympathetic nervous system (Kozier, 2004). In people with psychological problems, there is generally an imbalance of neurotransmitters in the brain. This unbalanced neurotransmitter condition will reduce stages IV NREM and REM.

e. Nutrition

Fulfilling nutritional needs will speed up the sleep process. Likewise, inadequate nutritional needs can affect the sleep process, sometimes also making it difficult to sleep. Eating heavy and spicy foods at night can cause indigestion which will disrupt sleep (Possttemir PA, 2005). Foods such as cheese, milk, meat, and tuna that contain a lot of L-Tryptophan can speed up a person's sleep process. Conversely, drinks containing caffeine and alcohol will disrupt a person's sleep quality (Asmadi, 2008).

f. Drugs

Some drugs consumed by a person have the effect of causing sleep, some have the opposite effect of disrupting sleep (Asmadi, 2008). Narcotics such as morphine and codeine can increase sleep time and drowsiness (Kozier, 2004).

g. Lifestyle

Bedtime habits can affect the sleep process, bad habits will certainly also worsen sleep quality. A person will fall asleep easily if their bedtime habits have been fulfilled. Regular bedtime and wake-up times are very effective in improving sleep quality and synchronizing circadian rhythms.

METHOD

This study is an experimental study used to examine the effect of sleep hypnotherapy audio on improving sleep quality in participants with low sleep quality. The researcher used a purposive sampling technique to find participants with low sleep quality to be given therapy with sleep hypnotherapy audio. In the initial stage, the researcher distributed questionnaires to 44 respondents according to the respondents' willingness. In the questionnaire there is a research instrument, namely the Pittsburgh Sleep Quality Index (PSQI). Of the 44 respondents, the researcher selected 30 people who had very poor and poor sleep quality to become research participants.

During the study, participants were asked to listen to hypnotherapy audio created by the researcher every night before going to bed. After 30 days of listening to hypnotherapy audio, a post-test was conducted to determine the quality of participants' sleep after the experiment.

RESULTS

Descriptive analysis of frequency distribution and histogram was conducted to obtain an overview of the participants' sleep quality. The following is an overview of the sleep quality analysis of 30 participants before and after listening to audiototherapy.

Table 1: Description of Participants' Sleep Quality Before and After Listening to Audiototherapy

Component	Category	Frequency		Percentage Difference
		Pre	Post	
<i>Subjective sleep quality</i>	Good	0	0	0%
	Enough	0	16	+16
	Bad	4	8	+ 100%
	Very bad	26	6	-77%
<i>Sleep latency</i>	Good	0	0	0%
	Pretty good	0	18	+18
	Not good	13	6	-54%
	Bad	17	6	-65%
<i>Sleep duration</i>	<4 hours	9	5	-44%
	5-6 hours	21	17	-19%
	7-8 hours	0	5	+5
	>8 hours	0	3	+3
<i>Sleep efficiency</i>	> 80%	0	6	+6

	75-84%	0	2	+2
	65-74%	21	17	-19%
	<65%	9	5	-44%
<i>Sleep disturbance</i>	Not disturbed	0	3	+3
	A bit disturbed	0	14	+14
	Disturbed	4	8	+100%
	Very disturbed	26	5	-81%
<i>Sleep medication</i>	Do not use	6	8	+33%
	1 time/week	11	11	0%
	2-3 times/week	9	9	0%
	>3 times/week	4	1	-75%
<i>Daytime dysfunction</i>	No dysfunction	0	0	0%
	Somewhat dysfunctional	0	18	+18
	Dysfunction	14	6	-57%
	Significant dysfunction	16	6	-63%
<i>Overall sleep quality</i>	Good	0	19	+19
	Not good	0	3	+3
	Bad	4	7	+75%
	Very bad	26	1	-96%

The homogeneity test results showed $p = 0.163$ ($p > 0.05$) meaning that the data distribution was normal. Furthermore, a difference test was carried out using the Paired Sample T-test with the result of $p < 0.001$, which showed a significant difference between the pre-test score and the post-test score. This means that after listening to audiototherapy, there was a decrease in the PSQI score which indicated problems in sleep quality. Thus, it can be concluded that the use of audiototherapy can improve sleep quality.

Table 2: Paired Samples T-Test

Measure 1	Measure 2	t	df	p
Pre	Post	8.045	28	< .001

DISCUSSION AND CONCLUSION

Based on statistical tests conducted on research participants, there was a significant difference between the pre-test and post-test scores of participants who listened to hypnotherapy audio. This indicates a difference in sleep quality from people who listened to audiototherapy. The difference indicates an increase in sleep quality experienced after participants listened to hypnotherapy audio. This means that hypnotherapy audio can be concluded to help improve sleep quality.

The results showed an increase in the average value of participants' sleep quality by 43% with sleep quality before listening = 9 compared to after listening = 13. The use of audiototherapy also helped increase sleep duration and sleep efficiency. After listening to audiototherapy, the number of participants who were disturbed during sleep decreased. This shows that the use of audiototherapy can help you sleep better.

It should be noted that this study was conducted using audiototherapy that was listened to independently by the research participants. As many as 97% of participants stated that they consistently listened to audiototherapy for 30 days while 3% of them had slept without using audiototherapy. In addition, other factors that may affect a person's sleep quality need to be considered, including stress levels, health conditions, and each person's biological rhythm.

After learning that listening to hypnotherapy audio has been proven to improve sleep quality, the use of audiotape applications with hypnosleep can be used to help clients who are experiencing problems with their sleep quality. In addition to listening to hypnosleep audio, several other things that can be done to help improve a person's sleep quality are paying attention to habit patterns, nutrition, physical activity, and consumption of substances that can affect sleep patterns.

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