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Effectiveness of Wudhu Therapy and Music Therapy Before Sleep on Insomnia in Adolescents

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Abstract

Background: Insomnia is a sleep disorder in the form of recurring difficulties falling asleep or maintaining sleep, which can reduce brain function, growth, and development, disrupt body metabolism, concentration, and productivity, and result in many, accidents in adolescents. The prevalence rate of insomnia in Indonesia is 10% of the total population and the total population of around 28 million people who experience insomnia. The high incidence rate requires attention related to appropriate interventions for insomnia in adolescents.
Objectives: The purpose of this study was to see how effective ablution or wudhu therapy and music therapy are for adolescents with insomnia.
Methods: This research approach is a quasi-experimental design with a nonequivalent control group design, namely analyzing the effect of an intervention on the sample. A sample of 38 adolescents was divided into 2 (two) groups, namely the ablution therapy group and the music therapy group. The music used as therapy is classical music.
Results: The results showed that ablution therapy and music therapy before going to bed were effective against insomnia in adolescents, but music therapy was more effective with p=0.001, while ablution therapy had p=0.007.
Conclusion: The results showed that ablution therapy and music therapy before going to bed were equally effective against insomnia in adolescents, but music therapy was more effective than ablution therapy. It is recommended that teenagers with insomnia do ablution therapy or music therapy to overcome their insomnia.

Keywords: adolescent, insomnia, music, wudhu compresses

Introduction

Insomnia is a sleep disorder in the form of recurring difficulty falling asleep or maintaining sleep even though there is an opportunity to do so. Symptoms are usually followed by functional disturbances when awake and active during the day. One-third of adults have difficulty falling asleep and staying asleep within a year. Seventeen percent of them interfere with the quality of life.[1] Insomnia is often found in infants, children, adolescents, adults, and the elderly in the form of difficulty sleeping at night, maintaining sleep, or not being able to sleep soundly even though there is enough opportunity and time to sleep.[2,3] Insomnia is also defined as difficulty falling asleep, maintaining sleep, or non-restorative sleep accompanied by significant impairment of daytime functioning in the absence of a physical, mental, or substance cause. Sleep deprivation can lead to decreased brain function and impaired concentration. Insomnia problems that cannot be effectively resolved can lead to insomnia in adulthood and alcohol and drug dependence, interfering with daily life and affecting life, school performance, and school attendance. causing lethargy, leading to anxiety and depression or more serious mental illness.[4,5] The lifetime prevalence of insomnia is 10.7%. As many as 88% of adolescents with a history of insomnia report current insomnia. The median age of onset of insomnia was 11. Of those with insomnia, 52.8% had a comorbid psychiatric disorder. In an exploratory analysis of insomnia and pubertal development, the onset of menstruation was associated with a 2.75-fold increased risk of insomnia. There was no difference in the risk of insomnia among girls before the onset of menstruation compared with boys, but the differences appeared after the onset of menstruation.[6] Insomnia in adolescents is more related to sleep hygiene and delayed sleep phases. Psychiatric problems (anxiety, depression) or neurodevelopmental disorders (attentional disorders, autism, epilepsy) are frequently associated with or as comorbidities in insomnia.[7] Insomnia is a risk factor in the development of other psychological and physiological disorders,[8] duration of social media use,[9] stress,[10] reasons for use and duration of use of social networking sites, and academic stress.[11] Insomnia is also associated with depression and anxiety disorders other psychiatric disorders, and are independent risk factors for suicide and drug use in adolescents,[5] smoking behavior,[12] and anxiety.[13]

Sleep experts report three main causes of insomnia: physical, psychological, and behavioral. Physical causes are related to allergies, asthma, or side effects of alcohol, prescription drugs, and illegal drugs. Physical causes are mainly medical problems. Psychological causes include anxiety and depression. Depression is highly correlated with early awakening and an inability to go back to sleep, while anxiety is associated with difficulty sleeping in retirement. It was found in the study on Navy recruits that the most significant correlate linking poor sleep to poor performance was chronic psychological distress such as anxiety and tension, suggesting a higher number of somatic problems in sleep-deprived people. Hypothetically, psychological problems such as anxiety and tension are responsible for most poor sleep and are the biggest contributing factors to insomnia. Behavioral causes involve habits and patterns that are not conducive to restful sleep, thus involving the person's lifestyle and personal issues. Habits that are not conducive to sleep include irregular bedtimes and wake times, long naps, and excessive consumption of caffeinated foods and drinks such as chocolate, coffee, tea, and soft drinks.[14]

Therapy to overcome insomnia is pharmacological and non-pharmacological therapy. Pharmacological therapy includes suvorexant[15] while non-pharmacological therapy must be based on cognitive-behavioral therapy[16] such as music,[17] and modification of sleeping habits. Using drugs and other substances to make it easier to sleep is fairly common nowadays, although there are no clinical guidelines to support this.[18] Other non-pharmacological therapies include acupressure.[19] Judging from its efficacy, music therapy interventions for insomnia provide more clear benefits.[20] Several studies have revealed that

ablution therapy also affects the incidence of insomnia.[21,22,23] Music therapy may be effective for improving subjective sleep quality in adults with insomnia symptoms. This intervention is safe and easy to perform.[24] According to the World Federation of Music Therapy, music therapy is the use of music and its elements as an intervention in the fields of health, education, and the everyday environment for individuals, groups, families, and communities who are trying to optimize their quality of life and improve their physical, social and communication health. Emotional, intellectual, and spiritual as well as his well-being condition.[25] While ablution therapy can be interpreted as an effort to activate the organs of the body using clean water by washing, wiping, and massaging certain organs. Ablution therapy is included in Cognitive Behavioral Therapy (CBT) because this therapy combines hydrotherapy (water therapy), relaxation therapy, and belief.[26]

Several studies have shown that cognitive-behavioral therapy is widely used in treating adolescents with insomnia. One study showed that CBT is a feasible intervention for insomnia. This therapy succeeded in significantly improving sleep in 6 weeks and it seems that sleep can last up to 6 months well.[27] Other studies say that cognitive-behavioral therapy given either individually, in groups, or given over the phone has the same effectiveness.[28] CBT-I is an effective treatment for chronic insomnia.[29] Other studies explain that sprinkling water and massage during ablution reduces muscle tension and relaxes the body and can be used as relaxation therapy and improves sleep quality in the elderly with insomnia. It is recommended for the elderly with insomnia to keep practicing ablution as sleep hygiene to get good quality sleep.[23] In ablution, there are procedures for washing the limbs of the ablution so that the limbs washed in ablution can relax. Several journals that have conducted research on the relationship between ablution and sleep disorders also state that there is a significant relationship between the two.[30] Based on the results of a literature review, it can be concluded that there is an influence or relationship between ablution and the incidence of insomnia in the elderly, this is because ablution can reduce muscle tension and cause muscles to become more relaxed, therefore elderly people have good sleep quality.[31]

Based on a preliminary study at junior high school X in Depok, it was found that 6 out of 10 students experienced insomnia with complaints of difficulty falling asleep quickly, and waking up feeling uncomfortable. 3 students said they were often sleepy in the morning and 1 student reported falling asleep in class. All students said they did not know what therapy was right for insomnia, and two of them said that doing ablution before going to bed made it difficult to fall asleep

Study The novelty of this study with other studies is to compare ablution therapy with music therapy, which one is more effective in reducing insomnia in adolescents. In addition, studies related to ablution take mostly the elderly as their population, while this study uses teenagers because during this period there is a shift in the body's circadian rhythm so that sleeping hours also shift. In general, the need for sleep increases, but due to the habit of watching Korean dramas, reading webtoons, playing on computers, laptops, or gadgets before going to bed, accessing social networks, or interacting with other users, causing adolescents to experience sleep deprivation, these habits can trigger increased insomnia. in teenagers.

Methods

The study used a quasi-experimental approach with a nonequivalent control group design, namely analyzing the effect of an intervention on the sample. The variables of this study consist of the characteristics of the respondents, namely age, and gender. The independent variables are ablution therapy and music therapy, while the dependent variable is insomnia. In this study, the stages that have been passed are the implementation of research, data processing, presentation of results, and discussion. The population in this

study were teenagers at SMP (Junior High School) X Depok City. The sample requirements of this study include inclusion and exclusion criteria. The inclusion criteria in this study were: adolescents (especially for ablution therapy must be Muslim), currently experiencing insomnia and willing to become respondents, and no hearing loss (especially for students who receive music therapy intervention). Exclusion criteria in this study were: adolescents who were sick so they could not fully participate in the study and adolescents who withdrew in the middle of the study.

Data collection in this study was by dividing adolescents into two intervention groups, according to the sample criteria, then they were monitored or reminded every day via the WhatsApp Group (WAG) or Google Meet whether they had intervened according to the researchers' directions or not. The population of students who experience insomnia is 45 people, and 38 students are taken as a sample. 7 students were not willing to be respondents due to busy school work. The number of respondents in this study was 19 teenagers for the music therapy group and 19 teenagers for the ablution therapy group, 2 respondents withdrew. Sampling technique using purposive sampling. The instrument used was the Jakarta Biology Psychiatry Study Group's insomnia scale measuring instrument – the Insomnia Rating Scale (KSPBJ-IRS) which consisted of 11 questions and was divided into 4 degrees of insomnia, namely no insomnia, mild, moderate, and severe insomnia. Standard Operational Procedures (SOP) for ablution therapy and SOP for music therapy, as well as a checklist or intervention observation sheet filled in directly by the youth. The interventions given were music therapy and ablution therapy which were carried out for 6 weeks. The music therapy used is classical music and the duration of each therapy is 15 minutes. Researchers have carried out pre-intervention activities to identify insomnia in adolescents and have observed interventions of music therapy and ablution therapy performed before bedtime by respondents and have carried out post-intervention. Statistical analysis using Mann Whitney to see the difference in the median of the 2 independent groups if the dependent variable's data scale is ordinal or interval/ratio but not normally distributed. The researcher conducted an analysis of the respondent's characteristic variables, the independent variables, and the dependent variables. The independent variables are ablution therapy and music therapy, while the dependent variable is insomnia. Researchers also measured the effectiveness of the two intervention groups, namely the effectiveness of music therapy for insomnia and the effectiveness of ablution therapy for insomnia. In addition, the researchers also analyzed which of the two therapies was more effective, whether music therapy or ablution therapy for insomnia in adolescents. Bivariate analysis in this study used marginal homogeneity because the insomnia measuring scale was ordinal consisting of 4 categories.

Results

Following are the results of the univariate and bivariate analyses of the study.

Table 1. Characteristics of Adolescent Insomnia

Variable	Category	Frequency	Percentage
Age	12	3	7,9%
	13	7	18,4%
	14	22	57,9%
	15	6	15,8%
Total		**38**	**100%**
Gender	Female	15	39,5%
	Male	23	60,5%
Total		**38**	**100%**
Class	7	5	13,2%
	8	4	10,5%

	9	29	76,3%
Total		**38**	**100%**

Based on Table 1 above, the average age of 14-year-old insomniacs is 22 people (57.9%) and the least is 12-year-old teenagers, namely 3 people (7.9%). The sf the majority is male, namely, as many as 23 people (60.5%), and the average sitting in grade 9 is as many as 29 people (76.3%).

Table 2. Description of insomnia in adolescents before and after intervention

Variable	Before Intervention		After Intervention	
	Amount	**Percentage (%)**	**Amount**	**Percentage (%)**
Music				
No Insomnia	N/A	N/A	15	78,9
Mild Insomnia	16	84,2	3	15,8
Moderate Insomnia	3	15,8	1	5,3
Severe Insomnia	N/A	N/A	N/A	N/A
Total	**19**	**100**	**19**	**100**
Wudhu				
No Insomnia	N/A	N/A	12	63,2
Mild Insomnia	17	89,5	5	26,3
Moderate Insomnia	2	10,5	2	10,5
Severe Insomnia	N/A	N/A	N/A	N/A
Total	**19**	**100**	**19**	**100**

Based on Table 2 above, it was found that the majority of adolescents in the music therapy group before the intervention experienced mild insomnia, namely 16 people (84.2%), while after the intervention the majority of adolescents did not experience insomnia, namely 15 people (78.9%). In the ablution therapy group, the majority of adolescents experienced mild insomnia, as many as 17 people (89.5%) and after the intervention, the majority did not experience insomnia, namely as many as 12 people (63.2%).

Table 3. Description of the Effectiveness of Ablution Therapy Before Sleeping Against Insomnia in Adolescents and the Effectiveness of Music Therapy Before Bed Against Insomnia in Adolescents

	Pre	**Post**	**Total**	**P-Value**
Music				
No Insomnia	N/A	15 (78,9%)	15 (39,5%)	0,001
Mild Insomnia	16 (84,2%)	3 (18,8%)	19 (50%)	
Moderate Insomnia	3 (15,8%)	1 (5,3%)	4 (10,5%)	
Total	**19 (100%)**	**19 (100%)**	**38 (100%)**	
Wudhu				
No Insomnia	N/A	12 (63,2%)	12 (31,6%)	
Mild Insomnia	17 (89,5%)	5 (26,3%)	22 (57,9%)	0,001
Moderate Insomnia	2 (10,5%)	2 (10,5%)	4 (10,5%)	
Total	**19 (100%)**	**19 (100%)**	**38 (100%)**	

Based on Table 3 above, it was found that music therapy was effective against insomnia in adolescents with a p-value = 0.001 (p-value <0.05). Likewise ablution therapy is effective against insomnia in adolescents with a value of p = 0.007 (p-value <0.05).

Table 4. Description of the Effectiveness of Ablution Therapy and Music Therapy Before Bed Against Insomnia in Adolescents

Variable	Post Music						
Pre Music	**No Insomnia**	**Mild Insomnia**	**Moderate Insomnia**	**Severe Insomnia**	**Total**	**P-value of Each Group**	**P-values Between Groups**
No Insomnia	N/A	N/A	N/A	N/A	N/A	0,001	0,349
Mild Insomnia	12	3	1	N/A	16		
Moderate Insomnia	3	N/A	N/A	N/A	3		
Severe Insomnia	N/A	N/A	N/A	N/A	N/A		
Total	**15**	**3**	**1**	**N/A**	**19**		
Variable	**Post Wudhu**						
Pre Wudhu	**No Insomnia**	**Mild Insomnia**	**Moderate Insomnia**	**Severe Insomnia**	**Total**	**P-value of Each Group**	**P-values Between Groups**
No Insomnia	N/A	N/A	N/A	N/A	N/A	0,007	0,349
Mild Insomnia	10	5	2	N/A	17		
Moderate Insomnia	2	N/A	N/A	N/A	2		
Severe Insomnia	N/A	N/A	N/A	N/A	N/A		
Total	**12**	**5**	**2**	**N/A**	**19**		

Based on Table 4 above, it was found that music therapy and ablution therapy were equally effective against insomnia in adolescents with a p-value between groups of 0.349, this means that there is no difference between ablution therapy and music therapy or in other words ablution therapy and music therapy are both effective against insomnia in adolescents. However, the p-value of music therapy (p=0.001) was smaller than the p-value of ablution therapy (p=0.007), this could mean that music therapy was more effective than ablution therapy for insomnia in adolescents.

Discussion

The results showed that the average age of adolescents with insomnia was 14 years. It can be concluded that junior high school adolescents who experience insomnia are not limited to a certain age. The results showed that more male students had insomnia than female adolescents. One study stated that there were 47 male adolescents (61.0%) experiencing insomnia,[32] but the results of this study were different from other studies which stated that 55 female adolescents (67.1%) experienced insomnia.[33] Researchers assume that currently, male and female adolescents have the same risk of experiencing insomnia. In an exploratory analysis of insomnia and pubertal development, the onset of menstruation was associated with a 2.75-fold increased risk of insomnia. There is no difference in the risk of insomnia among girls before the onset of menstruation compared with boys, but the differences appear after the onset of menstruation.[6]

Girls reported longer sleep onset latencies and higher rates of insomnia than boys, while boys reported slower bedtimes and greater weekday-weekend differences on several sleep parameters. The prevalence rates of insomnia ranged from a total prevalence of 23.8

(DSM-IV criteria), 18.5 (DSM-V criteria), and 13.6% (quantitative criteria for insomnia). We conclude that short sleep duration, long sleep onset latency, and insomnia are prevalent in adolescents. This requires attention as a public health problem in this age group.[34] The incidence of insomnia is quite a lot and has even increased during the Covid-19 pandemic.[35,36] Based on the results of the questionnaire distributed, it was found that as many as 30 teenagers (78.9%) used to play cellphones/gadgets before going to bed. According to some studies, there is an effect of playing HP/gadgets[37], seen from social media,[38] social media duration,[9,39,40,41,42] social media intensity,[43] playing games,[44,45,46] against insomnia in adolescents. Post-intervention findings showed a decrease in the insomnia scale in both groups. In the music therapy group, 15 adolescents (78.9%) had no insomnia and in the ablution therapy group, 12 adolescents (63.2%) had no insomnia anymore.

The results of the study show that classical music therapy with a tempo of 60 bpm or slower and a soft rhythm is effective against insomnia in adolescents as well as ablution therapy is effective against insomnia in adolescents. This is in line with several studies which state that there is an effect of music on insomnia.[47,48,49,50,51,52,53] Listening to music stimulates cells in the limbic system so that a person relaxes. Music with a tempo of 60 bpm stimulates the left and right brain to prepare for the rhythm of the music so it makes you relax and feel comfortable.[54] Music reduces levels of cytokines, plasma catecholamines, and cortisol, and reduces heart rate and respiratory rate. Conditions like this will increase parasympathetic activity so that it is more relaxed. Music for therapy is calming and pleasant so that it can reduce nerve activity, increase hormone work, reduce brain activity, and increase immunity.[55] Music therapy is an organized auditory stimulation consisting of melody, rhythm, harmony, timbre, form, and style. While the most important part is the rhythm.[56] Relaxation music should be consistent and stable in rhythm between 60-80 beats per minute, have a smooth, flowing melody, a dynamic range of small intervals, and a pleasant harmony structure.[57] Music can evoke emotions depending on the tempo and style of the beat. Instruments of various types of music with the appropriate tempo and tone can be calming, more relaxed, and have better sleep quality.[58] If you listen to it through a playlist containing varied music, it can induce sleep.[59] Music affects one's emotions and affects the body. Aggressive music with a fast beat can get agitated. Music with a soft rhythm gives calm, slow tempos have a relaxing effect to release positive feelings.[60] Listening to music can form a psychological connection between bedtime and sleep and replace bad habits. Music is closely related to physiological and psychological responses and affects the activity of the endocrine and autonomic nervous systems. Music therapy relaxes, energizes, refreshes, improves, and improves sleep quality. In a state of perfect relaxation or rest, all cells in the body experience reproduction, natural healing takes place, hormone production is balanced, the body and mind are fresher,[55] provide comfort, restore and maintain physical, mental, social, and spiritual health, provide calm and relaxation deep. So that makes a person have the desire to sleep.[53]

The research results show that ablution therapy is effective against insomnia in adolescents, this is in line with a literature review study regarding insomnia in the elderly which says that there is an influence or relationship between ablution and the incidence of insomnia in the elderly. When a person experiences sleep disturbances, there is tension in the brain and muscles so by activating the parasympathetic nerves with relaxation techniques the tension is automatically reduced so that it is easy for someone to fall asleep. It is recommended to do wudhu therapy because the splash of ablution water will feel peaceful and serene so some massage or rubbing during ablution will reduce muscle tension and become more relaxed. With a relaxed mind and condition, the elderly can have good quality sleep.[60] Ablution affects the autonomic nervous system characterized by parasympathetic activation except for the SDNN parameter but when the paired sample t-test was performed, the result was $p>0.05$ indicating that the effect was not significant except for measuring the pulse, the result was $p<0.05$.[61] Furthermore, from the results of a

comparative analysis of the six sleep quality factors, it was found that ablution therapy is more focused on increasing satisfaction with sleep, which consists of three indicators, namely: 1) the overall level of satisfaction with sleep; 2) Sleep well; 3) Adequate sleep.[62] Ablution therapy affects the incidence of insomnia in teenage boys.[63] Performing ablution therapy can reduce anxiety levels so that comfort and calm arise. Of course, this ablution therapy must be done correctly so that the nerve points in the body are touched during ablution.[64] Wudhu can be said as a therapy that combines several therapies, namely hydrotherapy, acupuncture, acupressure, reflexology, and prayer therapy. Ablution is performed by pouring water and/or washing certain parts of the body with water. The results showed that the level of insomnia decreased from moderate to mild after warm and cold hydrotherapy and after warm hydrotherapy.[65] Hydrotherapy can help treat a variety of conditions, including arthritis, stomach problems, sleep disturbances, stress, and depression.[66] It is Sunnah to perform ablution to interrupt the water up to the fingers, then wash the hands up to the elbows during ablution and 95 acupuncture points are touched, rubbed, or massaged during this ablution movement. Between the fingers and toes, there is a special point each (Ba Sie between the fingers and Ba Peng between the toes). Based on research by acupuncturists, when stimulated these points can stimulate bioenergy which is useful for building homeostasis to produce therapeutic effects that have multiple indications, such as for treating migraines, toothaches, red hands, swelling, and stiff fingers.[67] Ablution therapy can be interpreted as an effort to activate the body's organs using clean water by washing, wiping, and massaging certain organs. get several acupressure points get massaged during ablution. Acupressure has the same principle as acupuncture by stimulating the fourteen meridian systems to balance the bioenergy in the body between yin, yang, and qi (chee). Each meridian has 400-500 energy channel points related to internal organs as well as certain systems that function as valves that channel energy throughout the body. Channeled energy will affect emotions and ways of thinking. One type of acupressure is shiatsu which means an emphasis on acupoints (energy points) by rubbing, pressing, massaging, patting, and heating. Light acupressure massage can reduce sleeplessness, namely by pressing right behind the right and left ears using fingers with strong pressure.[68]

Washing the face is the pillar of ablution and must be washed, meaning that if it is not washed then the ablution is invalid. By washing, rubbing, and massaging the facial area it will press the acupuncture points found on the face.[66] Acupuncture points for insomnia on the head and ears include the Baihui GV 20 point which is located on the crown and the Amnian point (EX-HN 16) behind the ear. This point is one of the points that is washed during ablution. Manual acupuncture stimulation gv 20 + HT 7 and GV 20 + SP 6 can improve sleep disturbances at the level of insomnia.[69,70,71] There are 2 reflex points for insomnia in the ear area. The results of this study indicate that reflexology has a positive effect on fatigue and sleep quality.[72] The ablution movement is also in the form of rubbing the feet and hands and ears. Feet, hands, and ears are zones of reflexology. Reflexology is a treatment or therapy by giving a touch of massage or stimulation to the feet and or hands which can help cure disease and provide fitness for the body. Reflexology can provide a relaxing effect on the body parts related to the massage area. By applying pressure to the feet, hands, and ears, it can cause anesthetic effects on other parts of the body. The soles of the feet are the most important zone as a therapy zone because the muscles in the soles of the feet have a function to help pump blood throughout the body up to the capillaries.[73] Applying reflexology and effleurage massage techniques can help reduce fatigue and insomnia in multiple sclerosis patients, but reflexology is more effective in reducing insomnia. Patients receiving chemotherapy experienced improved sleep quality and reduced fatigue after being taught about sleep hygiene and reflection.[74] By doing a good ablution movement, it can stimulate the area of reflection (reflexology zone) so that it can affect reducing the insomnia scale.

When doing ablution there is an acupuncture point P6 which is also under pressure.

The point for calming anxiety and insomnia is Pericardium 6, which is known as Neiguan, meaning Inner Gate. This is a great point for dealing with emotions in general as well as stress, fear, anxiety, sadness, depression, and PMS. This point is on the forearm, three finger widths from the crease of the wrist. Heart 7, known as Shenmen, means Spirit Gate. It is a must for sleep disturbances, nourishes the heart's blood, and is a great point for calming the mind and for physical agitation, curing fears, palpitations, and stress. This point is especially reassuring in cases of manic-depressive disorder. Located at the ulnar end of the distal wrist crease with the palms facing up.[75] On the feet there are also several reflex points. Post-menopausal women benefit after applying reflexology because sleep quality improves and fatigue decreases. Reflexology can be used as a nonpharmacological therapy option.[76] Reflexology on the feet can reduce sleep disorders.[77] Ablution also means pressing the acupuncture point for insomnia on the feet, which is Kidney 6 point, also called Zhaohai, meaning Shining Sea, is a good place to increase kidney yin and calm the mind, two interesting features for preventing and treating insomnia. This point also helps reduce nightmares as well as nocturnal epileptic seizures. Bladder 62, called Shenmai, which means the Ninth Canal, helps calm the mind and treats insomnia. These two points can be stimulated simultaneously allowing the whole body to rest for a good night's sleep. The points are located at the ankles, in the depression, just below the internal malleolus (Kidney 6) and external malleolus (bladder 62). It is enough to press this point for a minute or two to help reduce insomnia symptoms. The Kidney 6 point is pressed with the thumb and the Bladder 62 with the index or middle finger of the same hand. These points are massaged gently with firm pressure, without causing pain. Take a deep breath while doing one leg, then continue with the other.[78,79] This point is an important point for sleep disturbances and is very sensitive so the amount of pressure/manipulation doesn't need to be done too long and it doesn't need to be with strong pressure. Enough light pressure then this insomnia point will relieve insomnia. Ablution begins and ends with prayer. Praying fervently will give peace to man. Praying is included in mind-body therapy with the aim of facilitating the capacity to think that affects physical symptoms and the function of thinking that affects physical and bodily functions.[73]

Even though ablution therapy and music therapy were both effective, the p-value of music therapy was smaller than the p value of ablution therapy, this could mean that music therapy was more effective than ablution therapy for insomnia in adolescents. Music offers a powerful emotional experience and entertainment for adolescents, and serves as a source of renewal and self-healing.[80] Music surrounds teens most of the time, creates a desirable atmosphere, and offers leisure as well as entertainment. The role of music as entertainment is important when teenagers are alone. Music offers variety and stimulation to teens. Music also plays an important role in creating an atmosphere in different social situations by creating a relaxing atmosphere. It can be concluded that for teenagers music is something closely related to mood, feelings, entertainment, and mood so the tendency of teenagers to choose music in a therapy can be greater than the choice of ablution. Another thing that might support the reason why music therapy is more effective than ablution therapy is that based on the results of the questionnaire, it was found that in the ablution intervention group more adolescents experienced diseases or health problems that caused secondary insomnia compared to the music intervention group. Even so, it can be said that almost all adolescents are at risk of primary insomnia because they are used to using gadgets/mobile phones before going to bed. According to Roth, primary insomnia or Primary Insomnia (PI) is generally defined as difficulty sleeping that affects daytime function; it does not occur in the presence of another sleep disorder, mental disorder, or as a direct result of the physiological effects of a substance or medical condition.[81] Ohayon MM says that primary insomnia is usually caused by disturbances in the initiation or maintenance of sleep, including difficulty falling asleep, daydreaming, and restless sleep.[81] Ruiz P & Nozomi P say that primary insomnia means that a person has sleep problems that are not directly related to other health problems. On the other hand, secondary insomnia means that a

person is having trouble sleeping due to other factors, such as a health condition (such as depression, asthma, arthritis, cancer, or heartburn), pain and taking medications or substances such as alcohol.[82]

Conclusion

The results showed that ablution therapy and music therapy before going to bed were equally effective against insomnia in adolescents, but music therapy was more effective than ablution therapy. It is recommended that teenagers with insomnia do ablution therapy or music therapy to overcome their insomnia. Education on insomnia therapy in adolescents is expected to be more intense and comprehensive, one of which can be through school. Research with different sample characteristics, for example on students or specific types of insomnia, can be done for further research.

Conflict of Interest Declaration

There is no potential conflict of interest in this research.

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