

## THE EFFECT OF A COMBINATION OF SHEN-MEN EAR POINT ACUPRESSURE AND BABY MASSAGE ON BABY SLEEP QUALITY

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### Abstract

**Background:** Newborn babies spend more time sleeping with an average sleep duration of 16 – 17 hours a day. Low quality sleep can interfere with the baby's growth, make the body's immune function vulnerable, and disrupt the regulation of the endocrine system. **Objective:** to determine the effect of the combination of Shen-men ear point acupressure and baby massage on the quality of baby's sleep. **Method:** Design research used \_ is pretest-posttest design. Population study This is all over mother who has baby aged 3-12 months with amount sample as many as 37 mothers. Variable data retrieval quality Sleep baby use Pediatric Sleep Questionnaire (PSQ) questionnaire. Data analyzed using the average comparison test *paired sample t* test statistics. **Results:** Average score quality Sleep baby before treatment k combination Shen-men ear acupressure and massage is 9.11. Average score quality Sleep baby after treatment k combination Shen-men ear acupressure and massage is 6.16. There is influence a combination of Shen-men ear point acupressure and baby massage on the quality of baby sleep in the working area Health Center Batujaya Subdistrict Batujaya Regency Karawang, p-value  $0.000 < 0.05$ .

**Keywords:** Acupressure, Massage, Sleep Quality

### Introduction

The baby phase is a critical period that requires special attention to support the child's growth and development. Sleep and rest are elements that significantly influence a baby's growth and development. Increase amount cell brain and production hormone growth and development happen moment Sleep by 75%. Optimal sleep quality has a crucial role for improving physical and mental health for all individuals. The importance of good sleep, especially for babies, is closely related to the sleep phases that support optimal growth. During sleep, the baby's brain development reaches its peak (Lontaan et al., 2023). Peak growth brain baby achieved moment baby Sleep with sleepy asleep, because baby capable produce hormone growth until reach three times more optimal if compared to when awake (Lailaturohmah et al., 2023). Another benefit of pattern Sleep good baby \_ is enhancement memory declarative. Baby with duration optimal sleep has memory more declarative \_ Good compared to baby with duration suboptimal sleep. \_\_ (Sulistiywati et al., 2023)

Average duration Sleep for 16 – 17 hours a day or longer time \_ baby new born. Usually duration time Sleep reduce in a way regular along increase age baby. At 6 months of age, duration his sleep range between 13 to 14 hours a day (Saputra & Munaf, 2020).

WHO estimates 33% of babies have sleep problems. The prevalence of sleep disorders in children in Beijing is estimated at around 30% -35%. Although there is no official statistical data for cases of sleep disorders in children in Indonesia, several studies have shown that there are problems with sleep quality in babies. Estimated 44.2% of babies in Indonesia experience sleep disorders. Estimated No not enough of 72% of parents do not consider things Serious babies who experience it sleep disorders. Even

though it is recognized as an issue, many only view it as a small problem. In fact, sleep constraints can have a serious impact on a baby's growth resulting in vulnerability of the body's immune system and the endocrine system. (Widiani & Chania, 2022).

Babies and children with difficulty sleeping tend to experience overarousal, making it difficult for them to get to sleep. Various manifestations in babies or children who experience inadequate sleep quality can include drowsiness to levels of hyperactivity. As a result, they tend to become irritable, less focused, less cooperative, and have uncontrollable behavior. Babies with normal sleep quality basically have fussy behavior at the age of 3 to 14 weeks, due to the immaturity of the nervous system in reacting to various stimuli. Due to low quality sleep, especially night sleep, babies are less able to focus, which in turn causes motor skills to experience delays.

One of non-pharmacological approaches used is combined Shen-men ear acupressure with massage baby. Acupressure refers to the technique of applying pressure to areas or certain points on the body. The technique is one of a kind handling quality sleep baby in a way sufficient non-pharmacological efficient and relatively safe because it does not injure the skin of the body sensitive baby (Ainiyah & Abdullah, 2022). Pressing acupressure points such as the HT7 heart meridian (shenmen) will trigger increased hormone production serotonin from a physiological perspective (Son, 2019). Hormone works as a transmitting neurotransmitter signal to brain, trigger pineal gland to produce the hormone melatonin, which will affect the *suprachiasmatic nucleus* (SCN) in the anterior hypothalamus of the brain in regulating circadian rhythms. Condition the cause happens decreased *sleep latency* and *nocturnal awakening*, and increased total time sleep and sleep quality (Blume, Garbaza, & Spitschan, 2019). Acupressure at the Shen-men point is technique auricular acupressure on the ears. A number of scientific studies have proved that auricular acupressure on the ear can increase quality sleep and reduce sleep disturbance (Chueh, Chang, & Yeh, 2018; Kim & Park, 2023; Lu et al., 2022).

Massage is a choice method used for stimulates growth and development processes baby, because through touch, baby can achieve a sense of relaxation and comfort (Candrani & Fitriana, 2019). This technique is widely used already done a lot all over the world, because in a way down hereditary has taught. Massage baby can trigger baby to fall asleep and when no sleep own optimal concentration power (Saidah, Lidia, & Fauziah, 2020).

Leave from description background behind the so need done study empirical for understand and know effect Shen-men combined ear acupressure with to quality sleep in babies. Study this aim for know influence combination of Shen-men ear point acupressure and baby massage on baby's sleep quality.

## Literature Review

### Sleep and Sleep Quality

Sleep is a crucial component in maintaining human health, supporting various body systems such as the immune system, system cognition, digestion, and mental health. Sleep is a biological experience that happened manifested recurring and reversible with temporary immobility and low consciousness. As a state that can be anticipated, sleep is different from anesthesia and coma which generally involve a decrease or loss of nervous activity. Condition optimal sleep involves balance dynamic between action intentional voluntariness and ongoing biological processes without realized. Voluntary action before sleep usually like turning off the lights, turning off music until lie down until asleep. The action cause happens increased melatonin experience and change brain activity over time sleep evening (Grandner, 2019).

Sleep quality describes feeling or condition somebody when waking up. Sleep quality is combination between optimal sleep time with and depth and tranquility in rest. (Putro & Sari, 2018) According to theory *brain hypothesis* sleep functions are broadly divided into cognitive (high

level) and *housekeeping* (restorative and detoxifying) categories. The cognitive hypothesis proposes that sleep has both maintenance and enhancement functions memory or brain *plasticity*. The *housekeeping* hypothesis, on the other hand, proposes that sleep function is related to essential neural processes that support higher-order cognitive functions. The restorative hypothesis proposes that sleep restores and repairs degraded neural substrates. The detoxification hypothesis proposes that sleep clears away substances accumulated during sleep (Frank & Heller, 2018).

Sleep is condition marked active \_ with activity nerves during time Sleep. According to various literature, sleep own function like development nerves, repair ability synapses (*synaptic plasticity*), maintaining mental health, consolidation memory, keeping metabolism body, guard immune body, cleanse poison in body, maintain energy, repair cells body, detoxification of the nerves, etc (Frank & Heller, 2018; Milentinova & Buskova, 2021).

Period Sleep are mutual physiological processes \_ alternate with period -period awake. Cycle sleep-wake influence and regulate function physiological and diverse response behavior. Individual experience rhythm cycle repeated which is part from life daily or called as rhythm circadian. The most rhythm known is cycle 24 hour day-night is called with diurnal rhythm or rhythm circadian. Circadian rhythm influence pattern functions biology and behavior main. Possible changes \_ estimated from temperature body, pulse heart, pressure blood, secretions hormones, sharpness sensory, and atmosphere heart depends on maintenance cycle 24 hour (Potter et al., 2019)circadian.

Quality bad sleep \_ happen consequence change cycle sleep-wake in someone. Reversibility in cycle sleep-wakefulness, for example when someone normal \_ awakened during Afternoon day become asleep during Afternoon day, often indicated serious illness. \_ Biological rhythms Sleep often become aligned with function -function another body. For example, change in temperature body correlated with pattern Sleep. Normal temperature body reach peaks in the afternoon, then decrease in a way gradual, and decreasing drastic after somebody asleep. When the cycle Sleep impaired, function physiological other normal experience change (Potter et al., 2019).

Sleep is divided into two phase ie REM (*rapid eye movement*) phase and NREM (*non-rapid eye movement*) phase. Sleep occurs in five stages: wake, N1, N2, N3, and REM. Stages N1 through N3 are considered non-rapid eye movement (NREM) sleep, with each sleep stage getting deeper. About 75% of sleep is spent in the NREM stage, with the majority spent in the N2 stage. A night's sleep usually consists of 4 to 5 sleep cycles, with the development of sleep stages in the following order: N1, N2, N3, N2, REM. A complete sleep cycle takes about 90 to 110 minutes. The first REM period is short, and, as the night progresses, longer REM periods and a decrease in deep sleep (NREM) time occur (Patel, Reddy, Shumway, & Araujo, 2022).

During the first few weeks of life, sleep patterns in newborn babies do not show a regular rhythm or sleep and wake pattern, with sleep distributed evenly throughout the day and night. Newborn babies sleep for approximately 16-18 hours each day in intermittent sleep episodes, with the longest sleep duration tending to last 2.5 to 4 hours continuously. Newborn babies experience three different sleep phases, namely sleep without eye movements (NREM), sleep with rapid eye movements (REM), and the erratic sleep phase. Unlike children and adults, newborn babies begin their sleep through the rapid eye movement (REM) phase rather than the no eye movement (NREM) phase. Each sleep episode in babies consists of only one or two cycles. This difference occurs because the baby's circadian rhythm is not yet fully formed. The development of circadian rhythms usually begins around two to three months of age, at which time there is an increase in the duration of waking periods during the day and an increase in the duration of sleep at night. (Patel et al., 2022).

Development pattern Sleep Evening starting at two months of age. When three months of age enter, the melatonin and cortisol cycle adjusts to the circadian rhythm, and sleep onset begins with NREM. At this point, the duration of sleep in the REM phase decreases and is moved to the end of the sleep cycle. The total cycle of NREM and REM in babies usually reaches 50 minutes, not 90 minutes as

in adults. When they reach six months of age, the longest sleep episode can last up to six hours. In general, 12 month old babies sleep around 14-15 hours per day, with most of the sleep occurring at night, and only needing one or two short sleep periods during the day (Patel et al., 2022).

There is various factor affecting \_ quality and strength Sleep somebody. these factors between factor internal individuals and factors external. Internal factors include factor genetics, disease, style life, stress, diet patterns, use drug certain, etc. \_ Whereas factor external covers condition composed environment \_ from lighting, cleanliness place sleep, noise, etc (Depner, Melanson, Mchill, & Wright, 2018; Saras, 2023).

### **Baby Massage \_**

Massage is a form of “stimulus touch” referring to the common practice of massage. Massage for babies and toddlers can be considered a form of comfortable communication between mother and child. Touch, in this context, is a natural way to interact with babies and toddlers, involving actions such as rubbing, massaging, or massaging. If done regularly, this type of touch can be considered an act of stimulation and intervention that brings a number of benefits to a child's development (Setiawandari, 2019). Baby massage involves tactile movements gently and slowly involving thorough rubbing of the baby's feet, stomach, chest, face, hands and back. Massage being a fun method to relieve tension and anxiety, especially in babies. Through gentle massage, the baby's muscles can relax, creating calm and restful sleep, while this gentle touch also strengthens the beautiful emotional bond between baby and parents (Utami, 2016).

Baby massage has a positive impact on the nervous system, especially stimulation of the vagus nerve. Activation of the vagus nerve can increase intestinal peristalsis, speed up gastric emptying, and stimulate babies' appetite so that they tend to eat more heartily in sufficient quantities. Apart from that, vagus nerve activity can also stimulate the production of digestive enzymes, supporting maximum food absorption. Apart from that, massage also plays a role in increasing blood circulation and cell metabolism, which in the end can contribute to increasing the baby's weight (Hady, 2014).

The benefits of baby massage include increasing body weight and growth, increasing endurance, increasing the baby's concentration and making the baby sleep soundly, building bonds of love between parents and children (bonding), increasing breast milk production. Apart from the benefits, baby massage also has impacts and complications if done incorrectly due to masseuse errors such as trauma or bruising to the skin and muscles, pain in the baby so that the baby becomes fussy, muscle and bone injuries, swelling, the baby becomes increasingly fussy. But as long as baby massage is done correctly and gently, baby massage is safe and even beneficial (Cahyanto, et al. 2020).

According to Juwita and Jayanti (2019) massage for babies give benefit as following among other effects positive biochemical and physical, improving \_ weight, increase growth and development baby, increase concentration baby, increase bond inner love Darling Mother with baby, increasing the baby 's sense of comfort and stimulating circulation blood. Massage baby own effect physiology of the system circulation blood, system lymphatic, system integument and system muscle (Sudarmi et al., 2022).

Some other things are necessary considered when massage babies, including:

- 1) Hands are clean and warm
- 2) Avoid scratches on the baby's skin due to nails and jewelry
- 3) The room is warm and not stuffy
- 4) The baby has finished eating or the baby is not hungry
- 5) Sit in a comfortable and calm position
- 6) Baby laid down on a flat, soft and clean cloth surface
- 7) Prepare towels, diapers, change of clothes, and oil or baby oil/lotion
- 8) Ask the baby's permission before doing the massage by stroking the baby's face and talking

- 9) Use oil when massaging to avoid injuries due to friction that can occur due to contact with the skin. Suitable oils are olive oil, telon oil, or baby oil. Should No use aromatherapy oils because they are too harsh for baby's skin (Prasetyono, 2017).

### **Shen-Men Ear Acupressure**

Acupressure is technique massage or push part body on point certain For overcome problem health. Acupressure technique customized with complaint somebody. Acupressure is also called massage performed on points \_ acupuncture can \_ done with help from others or in a way independent (Anggraeni, Palupi, Trisnagati, & Indahsari, 2023). Acupressure is technique pressing, kneading, kneading, and massaging part body so that vital energy circulates throughout \_ body. Region or point emphasis or massage called with *acupoints*. When the dots pressure pressed will trigger body For release tension autom increase circus gentle and helpful in the healing process something disease (Lestari, 2022).

Acupressure is technique useful alternative \_ in guard health and coping various type disturbance health like Sick waist, interference sleep, stress, and various problem health other (Saras, 2023). Therapy acupressure has proven effective in overcome various type diseases, including those of a nature light nor Serious. In fact, diseases that require action medical like operation, yes treated through method acupressure. Handling disturbance health through acupressure requires a long process For obtain recovery. Often required treatment in a way regularly and several times therapy. But not rare found disease can overcome only with very therapy, hanging on lightly or or not disease. There are several other benefits of acupressure therapy including improving \_ relaxation, increase fitness and stamina, healing disease, minimizing time *recovery* injury, and reduce levels depression (al-Jauziah, 2019).

Acupressure Ear Shen-Men point is pressure exerted within the triangular fossa \_ leaf ears, more low from the superior crus. Point control located in the auricular (Tseng, Tseng, Lin, & Chang, 2015)helix. Shen-men refers originate from known Chinese culture as a “ *spirit-gate* ” that has ability For calms and slows down beat raise and lower worry (Kuhns, 2021). Ear shen men are point Frequent auricular (ear) acupressure imitation is used effect from point body heart. The response Can Far more seen Because There is more acceptance \_ big in the system micro ear. Point Shen-men ear acupressure can very pleasant for child small or baby at night day (Deng et al., 2019). Shen-men ear point as point The main thing is calming mind and reduce stress. *Acupoints* often used For treat insomnia, disorders sleep, pain, and symptoms separated substance (Tseng et al., 2015).

Acupressure Shen-men ear point is a less painful technique of auricular cupressure by applying pressure to certain acupuncture points in the ear to balance the flow of Qi. This technique works applied by any healthcare service with or without experience in Traditional Chinese Medicine (TCM). Stimulation of the Shen - Men point is known to help calm the mind, reduce stress, anxiety, insomnia and pain. It is also associated with activation of the parasympathetic nervous system. In 1990, WHO recognized auricular acupressure as a form of microacupuncture that is helpful in the management of several diseases. Many studies have demonstrated the effectiveness of auricular acupressure in the field of anesthesia, such as improving analgesia in total knee replacement and lumbar spine surgery, reducing postoperative nausea and vomiting and reducing preoperative anxiety. (Boon, Mahdi, Rasali, Mat, & Tang, 2022).

## Methodology

This research uses a quantitative approach and the research design is *a quasi experiment*. *Quasi-experimental* research is research carried out by selecting samples that are not random. The design used in this research was *a one group pretest-posttest design*, which did not use a control group. Study This carried out in the work area Health Center Batujaya Subdistrict Batujaya Regency Karawang on the moon December 2023 – January 2024. The population in this study was all babies aged 3-12 months. Amount sample used \_ is as many as 37 mothers.

Instruments used \_ For collect research data This is sheet questionnaire. Questionnaire sheet containing question with answer closed (*close-ended questionnaires*) submitted to Mother baby For answered. Questionnaire used is *Pediatric Sleep Questionnaire* (PSQ) developed by Ronald D. Chervin with amount question as many as 22. Categories answer every question are “Yes ” and “No”. If mother answer " Yes " then given a score of 1 and the answer “No” is given score 0. Analysis bivariate mean comparison test using *t* test statistics *paired sample* at level significance 0.05.

## Research Result

### Respondent Characteristics

**Table 1. Distribution Respondent Based on Age, Number of Children, Occupation, Education, Ethnicity, Age Babies & Gender Baby**

Mother & Baby Characteristics	Criteria	n	%
Age mother (years old)	<25	6	16%
	25-35	28	76%
	>35	3	8%
	Total	37	100%
Amount (someone's child)	≤ 2	23	62%
	>2	14	38%
	Total	37	100%
Work	IRT	18	49%
	Self-employed	9	24%
	Peg. Private	6	16%
	civil servants	3	8%
	Other	1	3%
	Total	37	100%
Education	JUNIOR HIGH SCHOOL	9	24%
	SENIOR HIGH SCHOOL	22	59%
	PT	5	14%
	Total	36	97%
Ethnic group	Sunda	27	73%
	Java	7	19%
	Other	3	8%
	Total	37	100%
Age Baby (month)	3-6	17	46%
	6-12	20	54%

<b>Mother &amp; Baby Characteristics</b>	<b>Criteria</b>	<b>n</b>	<b>%</b>
	Total	37	100%
Gender _ Baby	Man _	19	51%
	Woman	18	49%
	Total	37	100%

The distribution of respondents by age shows significant variations within age groups. Of 37 mothers become respondents study Currently, the majority of mothers (76 %) are in the age range of 25-35 years, while 16 % of mothers aged less than 25 years, and only 8 % are aged over 35 years. This shows that the sample in this study tends to consist of relatively young women, within the productive age range.

Based on amount children, the majority Mother own amount child not enough from or The same with 2 people (62%). Only 38% mothers with amount child more from 2 people. That matter indicated that majority from they is family small.

In terms of work, the distribution of respondents shows quite different variations between several types of work. Mothers who work as Housewives (IRT) are the largest group (49%) compared working mother \_ as profession other.

Distribution of respondents based on education level shows that the majority of mothers have a high school education level (59 %), followed by mothers with junior high school education (24 %.), and college high (14%).

Based on tribe, majority respondents is originating mother \_ from Sundanese (73%). Whereas originating mother \_ from Javanese and ethnic groups other are 19% and 8% respectively.

Based on category age babies, the majority baby as sample treatment study This baby aged 6-12 months (54%). Baby 3-6 months old is amounted to (46%). Whereas based on type gender, proportion baby manifold sex men (51%) almost The same with baby manifold sex women (49%).

### Univariate Analysis Results

As for the results analysis univariate quality Sleep baby presented in the table following.

**Table 1. Quality Score Sleep Baby Before and after Treatment**

Stage	Average	Min	Max	p-value
Pretest	9,11	6	15	0,000
Posttest	6.16	3	11	0,000

Average score quality Sleep pretest baby (before treatment k combination Shen-men ear acupressure and massage) is 9.11 which ranges from lowest (min) 6 to highest (15). Quality score Sleep pretest baby shows exists variation One each other at each sample (p-value: 0.000 < 0.05). Average score quality Sleep posttest baby (after treatment k combination Shen-men ear acupressure and massage) is 6.16 which ranges from lowest (min) 3 to highest 11. Quality score Sleep posttest baby showed exists variation One each other at each sample (p-value: 0.000 < 0.05). Based on this data indicated quality Sleep baby after treatment more Good compared to before marked treatment \_ with score quality more pretest sleep low compared to score quality pretest sleep.

### Data Normality Test Results

testing is carried out using the Kolmogorov-Smirnov Z test. If the results of the Kolmogorov-Smirnov Z test show a p value (Asymp. Sig.) less than 0.05, then the data is declared not to meet the assumption of normality. If, on the other hand, the p value (Asymp. Sig.) is greater than 0.05, then the data is declared to meet the assumption of normality.

**Table 3. Data Normality Test Results**

		Pretest	Posttest
N		37	37
Normal Parameters <sup>a, b</sup>	Mean	9.1081	6.1622
	Std. Deviation	2.02462	2.02091
Most Extreme Differences	Absolute	.141	.128
	Positive	.141	.128
	Negative	-.100	-.093
Kolmogorov-Smirnov Z		,855	,778
Asymp. Sig. (2-tailed)		,457	,580

The table above shows the *p value (asymptotic significance)* of the score data quality Sleep baby pretest (before treatment) was 0.457 and posttest (after treatment) 0.580. Because the *p value* for all data is greater than 0.05, it can be concluded that the data meets the assumption of normality.

### Bivariate Analysis Results

**Table 4. T Test Results (Comparison of Average Quality Scores Sleep Baby Before and after Treatment)**

Stage	Average	t- count	Sig.
Pretest	9,11	11,881	0,000
Posttest	6.16		

Analysis results bivariate show calculated t- value amounted to 11.881 with a p-value (sig.) 0.000 < 0.05 so decision taken is received  $H_a$ . It means There is influence a combination of Shen-men ear point acupressure and baby massage on the quality of baby sleep in the working area Health Center Batujaya Subdistrict Batujaya Regency Karawang. In other words, quality Sleep baby after treatment Shen-men ear point acupressure rice and baby massage in a way significant more tall compared to quality Sleep before treatment the. Average score quality Sleep baby before treatment the is 9.11 and after treatment 6.16.

### Discussion

#### Sleep Quality

Research result This show that quality Sleep before treatment k combination Shen-men ear acupressure and massage Enough varies between sample babies in the study This. Average score quality Sleep baby before treatment the is 9.11. Whereas quality Sleep baby after treatment the experience increase compared to before treatment. Where is the average score quality Sleep baby after treatment k combination Shen-men ear acupressure is 6.16, however show exists variation One each other at each sample. Rating result quality Sleep based on 20 indicators *The Pediatric Sleep Questionnaire (PSQ)* shows problem disturbance sleep the most experienced baby before given treatment k combination Shen-men ear acupressure and massage is often awakened moment Sleep night, easy disturbed as a result of the stimulus from outside, and difficult Sleep Afternoon.

Problem disturbance Sleep Evening day usually caused Because baby experience difficulty Sleep afternoon, baby often feel hungry consequence low intake food. There is a view that disturbance sleep in babies happen through Lots way and often No is known the cause. If you search There is a number of thing that becomes reason baby experience problem Sleep like infection or illness, inattention and activity in a way too much during the day the day that caused it fatigue physique (Marcadante, Kliegman,



Jenson, Behrman, & Indonesia, 2021). There is interference Sleep cause baby difficult reach condition the number of hours of sleep required is 12 to 16 hours a day which in the end cause lateness development physical and mental (Kang & Kim, 2021).

After birth, it takes several months for the baby to develop a good sleep pattern, both during the day and at night (Crawford, 2017). At the age of 6 months, babies' sleep patterns begin to show similarities to adult sleep patterns. Changes in the development of sleep patterns are related to increasing children's age, which results in a reduction in the amount of sleep needed, and is accompanied by a decrease in the proportion of REM (Rapid Eye Movement) and NREM (Non-Rapid Eye Movement) phases (Simkin, 2016). According to the American Academy of Pediatrics (AAP), the sleep requirement for babies aged 6 to 12 months is around 10-14 hours, while according to the National Sleep Foundation, the average sleep requirement for babies aged 6-12 months is around 12-15 hours (Hirshkowitz et al., 2015).

### **The Effect of the Combination of Shen-Men Ear Point Acupressure and Baby Massage on Baby Sleep Quality**

Research result This prove that There is influence a combination of Shen-men ear point acupressure and baby massage on the quality of baby sleep in the working area Health Center Batujaya Subdistrict Batujaya Regency Karawang. Where The test results show a p-value (sig.)  $0.000 < 0.05$  so decision taken \_ is received  $H_a$ . That matter indicated treatment acupressure on the ear area and massage baby capable overcome disturbance sleep in babies. Happen enhancement quality Sleep baby after treatment a combination of Shen-men ear point acupressure and baby massage compared to before, which is marked with decline score disturbance Sleep from 9.11 before treatment and became 6.16 after treatment.

Acupressure is a traditional technique that is known to create relaxation and relieve pain emphasis at specific points on the body, known as acupoints. Through this emphasis, acupressure aims to make life energy (chi) balanced eventually \_ healthy physical and psychological. In addition, acupressure is believed to improve blood circulation, harmonize the balance of " yin " and " yang ", and keep the body functioning properly. normally. \_ These effects in the end may also contribute to improved sleep quality (Ferawati, Rita, Amira, & Ida, 2020). Ear point acupressure - Shenmen being one type of therapy without relative medicine \_ safe and that Can applied in babies neonate al (Deng et al., 2019).

The application of acupressure to the Ear Shenmen point and baby massage have similar mechanisms in stimulating the secretion of the hormones serotonin and melatonin. Serotonin, which is produced from tryptophan, acts as a neurotransmitter that supports the process of entering the sleep phase by inhibiting the activity of the reticular activating system. (Ma'rifah, Mardliyana, Sukarsih, Rozifa, & Qodliyah, 2022). In the mechanism, serotonin undergoes conversion into 5-hydroxytryptophan (5HTP), which is then converted into N-acetyl serotonin and finally transformed into melatonin. This melatonin is then released by the pineal gland, which is only active to release melatonin into the bloodstream at night. With combine intervention acupressure on the Ear Shenmen point with baby massage is capable stimulate serotonin secretion via ABVN, which triggers activation pineal gland for secrete melatonin. the melatonin role crucial in organizing quality Sleep. The sedative effect produced by melatonin is caused by a direct shift in the suprachiasmatic nucleus (SCN), which acts as the main controller in the circadian rhythm and lowers body temperature which triggers sleepiness (Zisapel, 2018). Another advantage of the type the acupressure is trigger secretion endorphin hormones that will create comfort. So it can be concluded that through the combination of Ear Shenmen point acupressure and massage is beneficial in improve and optimize the quality of baby's sleep (Lailaturohmah et al., 2023).

## Conclusion

Based on results and Discussion results study so conclusion study This is:

1. Average score quality Sleep pretest baby (before treatment k combination Shen-men ear acupressure and massage) is 9.11.
2. Average score quality Sleep posttest baby (after treatment k combination Shen-men ear acupressure and massage) is 6.16.
3. There is influence a combination of Shen-men ear point acupressure and baby massage on the quality of baby sleep in the working area Health Center Batujaya Subdistrict Batujaya Regency Karawang, where test results show p-value (sig.)  $0.000 < 0.05$

## Suggestion

1. For Midwives  
Midwives can give training to Mother about technique acupressure Ear Shen-Men points and methods massage effective baby. \_ Education This can help Mother in give more care \_ Good to baby they.
2. For Mother  
Mom can take notes pattern sleep, behavior, and response baby to combination acupressure and massage. This data can give more understanding \_ deep related with impact care on quality Sleep baby.
3. For researchers furthermore  
Study furthermore can expand duration observation For see effect period long from combination acupressure and massage to development Sleep baby.

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