THE EFFICACY OF H7 (SHENMEN) POINT ACUPRESSURE IN TREATING SLEEP DISORDERS PREGNANT WOMEN IN THIRD TRIMESTER

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Abstract

Background: Pregnant women in the third trimester to experience discomfort, with sleep quality disorders being a notable manifestation. These disorders are typified by the frequency of nocturnal awakenings, which ranges from 3 to 11 times. 75% of pregnant women report a decline in sleep quality. The management of sleep quality disorders in pregnant women is recommended the utilization of non-pharmacological methods, such method being H7 (shenmen) acupressure. **Objectives**: The objective of the study was to confirm the efficacy of H7 acupressure in addressing sleep quality disorders in pregnant women in the third trimester. **Methods**: The study was conducted in april 2023. The research is a pre-experimental design with a pretest and post-test design. The population of this study comprised pregnant women in third trimester who underwent examinations at independent midwife practices. Consecutive sampling was employed, with a total of 23 pregnant women. The data collection method employed was observation, with a questionnaire as the research instrument. **Results**: The findings of the study demonstrated that sleep quality disorders in pregnant women in the third trimester demonstrated a significant improvement following the intervention. Prior to the intervention, the majority of sleep quality disorders were classified as poor, with 56.5%. However, following the intervention, a substantial proportion of sleep quality disorders were categorized as excellent, with 91.3% of cases demonstrating a notable improvement in sleep quality. **Conclusions**: It is hypothesized that midwives will be able to provide midwifery services that will help sleep quality disorders in pregnant women in the third trimester using H7 acupressure.
Keywords: Accupressure, Shenmen Point, Sleep Disorders, Pregnancy

1. INTRODUCTION

Pregnancy is widely regarded as a natural process of continuing offspring. Pregnancy is defined as the process that occurs between the union of sperm and ovum cells, thus resulting in conception and leading to the birth of the foetus. It is important to note that pregnancy is often accompanied by a number of changes in expectant mothers. Among these changes is discomfort for pregnant women [1]. A number of discomforts have been identified that pregnant women may experience during the third trimester of pregnancy. These include: Sleep disturbances, shortness of breath, worry and anxiety, discomfort and pressure in the perineum, Braxton Hicks contractions, calf cramps, leg oedema, headaches that occur during pregnancy, bloating, excessive fatigue in the back, swelling in the ankles or calves, varicose veins on the face and legs, stretch marks, and breasts getting bigger [1]. In America, sleep disturbances that occur in pregnant women in the third trimester are 97,3% with the occurrence of nocturnal awakenings ranging from 3 to 11 times. In Indonesia, a similar study was conducted by Astria on 158 pregnant women, and it was found that 75% of all pregnant women experienced a decrease in sleep quality [2].

It is imperative to recognise that suboptimal sleep quality during pregnancy can have a detrimental effect on both the process of childbirth itself and the health of the foetus. Research conducted by the University of California, San Francisco, found that pregnant women who sleep for less than six hours per night are 4.5 times more likely to undergo a caesarean section or experience a prolonged labour if they are able to give birth vaginally. The consequences for the foetus include babies with low APGAR scores and low birth weight [3].

There are two broad categories of approach to the management of sleep disorders in pregnant women: pharmacological and non-pharmacological. This non-pharmacological approach has been demonstrated to be an effective method of achieving the desired outcome. One technique is to provide acupressure. Acupressure is a form of massage that uses the fingers. It comes from Chinese medicine and involves massaging acupuncture points, or acupoints. This point is located on the inside of your wrist, in the crease, on the side where your pinky finger is. This point is great if you have trouble falling asleep due to anxiety or if you wake up in the middle of the night feeling anxious. Massaging this point calms the heart and anxiety along with it. HT7, also known as Shenmen or 'Spirit Gate', is an important point in traditional Chinese medicine. [4][5][6]

2. METHODOLOGY

Pregnant women registered with an independent midwifery practice. The participating were informed about the study, and their written consent was obtained. A gentle pressure or massage technique can be used to stimulate the HT7 point. This can be done using the thumb or index finger to apply gentle pressure. on this point with a circular or direct motion for one to two minutes with an acupressure therapist with an valid certificate of practice. When stimulating the point, try to relax and breathe deeply to maximise. This will increase its effectiveness [7]

During the first visit, they gave verbal consent to participate in the study and completed the PSQI questionnaire. Two weeks later, at the second meeting, the women filled out the PSQI questionnaire again. The statistical software program, namely, Statistical Package for the Social Sciences (SPSS), version 20.0, was used to analyze the data. Demographic and clinical variable data as well as the PSQI scores were summarized using mean, standard deviation. Chi-square analysis was used for PSQI item variables. p value < 0.05 was considered significant. One group used a pre-test/post-test design on one group only. The pre-test is conducted before treatment, and the post-test is conducted after treatment has been given [8].

3. RESULTS

1.1 Result

The following results were obtained based on research conducted in independent midwife practices regarding insomnia in pregnant women before given the H7 Acupressure Point.

Table 1. The frequency distribution of sleep quality disorders in pregnant mothers in the third trimester before the application of acupressure at point H7

Sleep Quality Disorders	Frekuensi	Persentase (%)
Very Good Sleep Quality	0	0
Quite Good Sleep Quality	10	43,5
Quite Poor Sleep Quality	13	56,5
Very Poor Sleep Quality	0	0

As demonstrated in Table 1, the majority of respondents (13 out of 23) reported substandard sleep quality prior to the administration of H7 acupressure point intervention. This finding is indicative of a significant proportion of the sample (56,5%), which is considered to be of concern

The following results were obtained based on research conducted in independent midwife practices regarding insomnia in pregnant women after given the HT7 acupressure point.

Table 2. The frequency distribution of sleep quality disorders in pregnant mothers in the third trimester after the application of acupressure at point H7

Sleep Quality Disorders	Frekuensi	Persentase (%)
Very Good Sleep Quality	21	91,3
Quite Good Sleep Quality	2	8,7
Quite Poor Sleep Quality	0	0
Very Poor Sleep Quality	0	0

As demonstrated in Table 2, the highest quality of sleep was attained by the majority of the participants (21 respondents, 91.3%) following the administration of H7 acupressure point, signifying that the intervention was effective in promoting restful sleep.

A bivariate analysis was conducted to determine the relationship between two variables: the independent and dependent variables. The bivariate results are as follows:

Table 3. Effectiveness of H7 Acupressure Point on Sleep Quality Disorders in Third Trimester Pregnant Women

	H7 Acupresure Point	
	Mean ± SD	**p-Value**
Sleep Quality Disorders		
Before	8,13 ± 1,792	0,000
After	3,74 ± 1,096	

As shown in Table 3, the results of the Wilcoxon test for sleep disturbance before and after the intervention are presented. According to the PSQI ($p < 0.000$), the sleep quality of pregnant women decreased significantly following the intervention. The P value obtained was 0.000, which is less than 0.05. This indicates that the hypothesis is accepted. These findings suggest an association between sleep quality disturbance and the H7 acupressure point intervention in pregnant women in the third trimester.

1.2 Discussion

The results of the study on the effectiveness of H7 acupressure in treating sleep quality disorders in pregnant women in the third trimester were analysed using the Wilcoxon test, assuming that the data was normally distributed. The average sleep quality disorder score before the intervention was 8.13, and after the intervention it was 3.74. The p-value obtained was 0.000, which is less than 0.05. It can therefore be concluded that Ha is accepted, meaning that H7 acupressure is effective in treating sleep quality disorders in pregnant women in the third trimester. H7 acupressure is important for pregnant women in the third trimester because it can improve sleep quality, providing relaxation and comfort for mothers.

Previous research results also support this finding. Juariah et al. (2024) [9] conducted research into the effect of the HT7 acupressure point on insomnia in postpartum mothers at the Lurah Health Centre in Cirebon Regency. This study is experimental, using the one-group pretest-posttest design method, which involves administering a pretest before treatment and a posttest after treatment. The results obtained, which show the influence of HT7 acupressure points on insomnia in postpartum mothers, can therefore be known more accurately. Sokunbi et al. (2020) [10] showed that usual care encompassing sleep hygiene, combined with either ACUTENS and/or acupressure, especially for

pregnant women experiencing sleep disturbances. for treatment in clinics and at home. The results revealed a significant improvement in sleep quality following acupressure treatment. Additionally, Neri et al. (2015)[11] found that overnight acupressure at the HT7 point for two weeks seemed to improve sleep quality and reduce anxiety. Although the small sample size and methodological bias prevented us from drawing any firm conclusions, this report should stimulate further research into the long-term effects of acupressure on the H7 point during pregnancy.

Pregnant women need enough sleep to ensure that the rest they experience is of good quality. They must therefore strive to ensure that they get around 7–8 hours of sleep per day. This can be achieved by sleeping at night or by taking a nap. If night-time sleep is limited to 5–6 hours, naps should be 1–2 hours long to ensure adequate sleep. Ideally, pregnant women should sleep for up to 9 hours per day [12]. According to the book 'Science of Acupuncture and Moxibustion', insomnia in TCM is classified as 'bumei' disease. Bumei is a disease characterised by poor sleep quality, difficulty sleeping, restless sleep, insufficient sleep or an inability to sleep at all. It can be caused by irregular eating and drinking habits, emotional disturbances, fatigue, or other diseases that cause a deficiency in the body. Bumei disease is closely related to the heart, liver, spleen, kidneys, gallbladder and stomach. In conventional medicine, bumei can be categorised as neurostemia, anxiety, depression, anaemia, or menopause. The main acupuncture points used to treat insomnia are Baihui (GV 20), Shenmen (HT 7), Sanyinjiao (SP 6), Zhaohai (KI 6), Shenmai (BL 62) and Anmian (EX-HN 22) [13].

Acupressure involves pressing on certain points on the body. It is a non-pharmacological intervention that is highly effective and relatively safe, as it does not involve invasive procedures or skin injury. Pressing acupressure points such as the HT7 (Shenmen) point on the heart meridian will physiologically stimulate an increase in serotonin release. Serotonin acts as a neurotransmitter, carrying signals to the brain that activate the pineal gland to produce the hormone melatonin. Melatonin affects the suprachiasmatic nucleus (SCN) in the anterior hypothalamus of the brain, regulating circadian rhythms and decreasing sleep latency and nocturnal awakenings while increasing total sleep time and quality [14]. HT7, also known as Shenmen or 'Spirit Gate', is an important point in traditional Chinese medicine. Located on the inner wrist, on the side of the little finger, it is found at the end of the wrist crease. It is part of the heart meridian and is considered a key point for calming the mind and regulating heart function. It is located on the inner wrist, on the little finger side, just at the end of the wrist crease. It is located on the heart meridian. According to traditional Chinese medicine theory, stimulating this point can help to treat a variety of physical and emotional health issues. Stimulating this point helps to regulate the flow of energy (Qi) in the body, particularly in relation to the heart and mind. This makes HT7 effective in alleviating stress and anxiety and in treating sleep disorders such as insomnia. Additionally, it is known to balance emotions, providing a sense of calm and emotional stability, which makes it useful in managing conditions such as anxiety and depression. HT7 can be stimulated by applying gentle pressure or massaging the area. Use your thumb or index finger to apply gentle pressure to this point using circular or direct movements for one to two minutes. Try to relax and breathe deeply while stimulating the point to increase its effectiveness. The benefits of stimulating HT7 include reduced stress and anxiety, improved sleep quality, emotional balance, and relief from wrist pain and heart-related problems [7][15][16]

Figure 1. *H7 (Shenmen) Point Acupressure*

Safe strategies to improve sleep quality in pregnant women should be emphasised during antenatal care. The current analysis suggests that non-pharmacological interventions such as soothing music, physical exercise, relaxation exercises, lettuce seeds, sleep hygiene and acupressure are effective in improving sleep quality during pregnancy. However, the evidence is of very low quality. In addition, encouraging health behaviours and lifestyle interventions during pregnancy may help to avoid adverse outcomes for the mother and fetus. Furthermore, given the high prevalence of sleep deprivation in pregnant women and the limited use of medication during pregnancy, future studies considering lifestyle modifications to improve sleep in other populations are warranted [17].

In conclusion, it appears that H7 acupressure affects sleep quality. While the small sample size and methodological biases prevent us from drawing definitive conclusions, this report should stimulate further research into the long-term effects of HT7 acupressure during pregnancy. This study has limitations arising from the fact that information on sleep quality was collected using a questionnaire, which may be subject to recall bias. Therefore, we recommend that future studies use polysomnography to more objectively assess outcomes over the long term and establish the effects of the interventions used in this study.

4. CONCLUSIONS

Research shows that acupressure at point H7 (Shenmen) is an effective treatment for sleep disorders in pregnant women in the third trimester (p-value: 0.000). Suggestion to midwives recommend massaging the H7 point help pregnant women overcome difficulty sleeping in their third trimester, as this is straightforward and It has no side effects.

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