



The Effect of Acupressure at Ex-HN3 and P6 Point Acupoints on Anxiety Level in Third Trimester

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ABSTRACT

Background: Anxiety is often experienced by pregnant women during pregnancy. Anxiety felt by pregnant women in general is the fear of premature birth, complications of pregnancy and childbirth that can cause death. If not treated will have an impact on the welfare of the mother and baby. Objective: This study aims to prove the effect of acupressure on anxiety levels in pregnant women. Methods: The design of this study was pre-experimental with pretest-posttest group design, subjects were normal pregnant women in third trimester, it used consecutive sampling with a total of 20 respondents. Acupressure at yintang and neiguan acupoints was done every day for one weeks. The anxiety measurement instrument used Zung Self Anxiety Scale. Data analysis used paired t-test. Results: The results of paired t-test analysis had p-values <0.05, so there were differences between before and after treatment on anxiety levels. Conclusion: Acupressure has the effect of reducing anxiety level in third trimester pregnant women.

Keywords: acupressure, anxiety, pregnancy

ABSTRAK

Latar Belakang: Kecemasan seringkali dialami oleh ibu hamil selama kehamilan. Kecemasan yang dirasakan ibu hamil pada umumnya yaitu ketakutan terhadap kelahiran prematur, komplikasi kehamilan dan persalinan yang dapat menyebabkan kematian. Apabila kecemasan tidak ditangani akan berdampak negatif pada kesejahteraan ibu dan bayi. Tujuan Penelitian: Penelitian ini bertujuan untuk membuktikan pengaruh akupresur terhadap penurunan tingkat kecemasan pada ibu hamil. Metode Penelitian: Penelitian ini menggunakan *pre-experimental design*, dengan pendekatan *pretest-posttest group design*. Subyek penelitian adalah ibu hamil trimester III, jumlah total subyek yaitu 20 orang yang dipilih dengan *consecutive sampling*. Akupresur pada titik yintang dan neiguan diberikan setiap hari selama satu minggu. Instrumen pengukuran tingkat kecemasan adalah Zung Self Anxiety Scale (ZSAS) dan analisis data menggunakan *paired t-test*. Hasil Penelitian: Hasil analisis *paired t-test* menunjukkan terdapat perbedaan signifikan rerata skor ZSAS antara sebelum dan setelah diberikan perlakuan (*p-values* <0.05). Kesimpulan: akupresur memberikan pengaruh signifikan terhadap penurunan tingkat kecemasan pada ibu hamil trimester III.

Kata Kunci : Akupresur, kecemasan, kehamilan

INTRODUCTION

Anxiety is often experienced by pregnant women during pregnancy, facing labor or after delivery (IM Bobak, DL Lowdermilk, 2012). This is due to hormonal changes during pregnancy which also cause the mother's emotions to become unstable. This condition is increasing in pregnant women with high risk due to increased stressors experienced (Fadzria & Harahap, 2016). Studies say that anxiety in pregnant women will increase the risk of preeclampsia up to 7.84 times (Isworro et al., 2012).

Anxiety in pregnant women if not treated will have an impact on the welfare of the mother and baby. The effects of anxiety on mothers include causing blood vessel spasm to worsen, resulting in an increase in blood pressure and organ damage (Trisiani & Hikmawati, 2016). The impact on the fetus is triggering premature birth, low birth weight (LBW), and low Apgar score (Gibson-Smith et al., 2015).

Anxiety felt by pregnant women in general is the fear of premature birth, complications of pregnancy and childbirth that can cause death and feelings of guilt (Gomakani et al., 2020). Without realizing it, the fear will be embedded in the subconscious mind and eventually

embedded as a negative program (Das, 2019).

Anxiety will also increase the work of the sympathetic nervous system (Guyton & Hall, 2013). The brain will send a signal to the pituitary gland which controls the body to increase cortisol and the hormone epinephrine. An increase in the hormones adrenaline and norepinephrine results in a dysregulation of the body's biochemistry, resulting in physical tension in pregnant women and triggering the heart to pump blood faster (Southwick & Charney, 2012).

Efforts to treat pharmacological anxiety through the administration of benzodiazepines as anti-anxiety are closely related to premature birth and low birth weight (Shyken et al., 2019). Some non-pharmacological efforts that can be done are murrotal therapy, hypnosis, massage, acupressure, relaxation, aromatherapy and dhikr therapy.

Acupressure is the stimulation to the body's meridians in the form of massage using the finger, thumb or blunt object. Stimulation at the acupressure point will be forwarded to the anterior hypothalamus to further produce endorphine hormones which have a major influence on feeling comfortable and relaxed (R. I. W. Hartono, 2012). In a relaxed body, the secretion of

the hormone cortisol can be prevented so the anxiety levels will be decrease (Guyton & Hall, 2013).

Giving acupressure is reported to be able to improve sleep quality and reduce anxiety in pregnant women in the third trimester of pregnancy (Neri et al., 2016). Research by Lu Dominic (2013) compared the effectiveness of several meridian points in reducing anxiety and yintang points (Lu & Lu, 2013). This study aims to prove the effect of giving acupressure at the Ex-HN3 (yintang) and P6 (neiguan) meridians on reducing anxiety in third trimester pregnant women.

METHOD

This type of research was a pre-experiment with one group pretest-posttest design. The research subjects were pregnant women in the third trimester. The research location is at the Pare Health Center and carried out from December to March 2020. The sampling technique was through non-probability sampling with consecutive sampling, obtained 20 respondents. Sample inclusion criteria included: healthy pregnant women, gestational age >28 weeks, no problems in pregnancy, no psychological disorders and domiciled in the study area.

All respondents were given acupressure at the Ex-HN3 (yintang) and

P6 (neiguan) meridians, performed every day for a week with a duration of 2 minutes. The instrument for measuring anxiety scores used the Zung Self-Rating Anxiety Scale (ZSAS) questionnaire. The reliability of the ZSAS instrument is 0.87. Anxiety levels were measured before (pretest) and one week after the intervention (posttest). This research has obtained permission from the ethics commission of RSUD Moewardi. Data analysis used paired t-test.

RESULTS AND DISCUSSIONS

This study proves the effect of acupressure on the Yintang and Neiguan meridians on reducing anxiety levels in third trimester pregnant women.

Tabel 1. Characteristic of respondents

Kriteria	Jumlah
Age (year)	
Mean \pm SD	30,90 \pm 5,92
Min-Max	18-41
Median	30
Gestational Age (week)	
Mean \pm SD	30,45 \pm 4,70
Min-Max	29-35
Median	32
Education Levels Σ (%)	
No education	1 (5%)
Primary	10 (50%)
Secondary	8 (40%)
High	1 (5%)
Working Status Σ (%)	
Working	7 (35%)
Not working	13 (65%)
Parity Σ (%)	
Nullipara	6 (30%)
Primipara	7 (35%)
Multipara	7 (35%)

The respondents' average gestational age was 30 weeks. Gestational age is closely related to the level of anxiety in pregnant women. The education level of the respondents is mostly basic education. There are also two respondents who have never attended school. The majority of respondents in this study were housewives (65%). The majority of the number of children ever born to the respondent is more than one (multipara).

The different test of anxiety scores before and after being given acupressure obtained the following results:

Tabel 2. The effect of acupressure in anxiety scores pre-post intervention

Group	Mean±SD
Skor Kecemasan	
Before	44,90 ± 6,943
After	33,75 ± 9,635
Difference	11,15 ± 4,614
p-value	0,001*

*paired t-test

Table 2 shows a significant decrease in anxiety scores in the group before and after being given treatment, the mean decrease from the previous 44.90 to 33.75 (p-value 0.001). Giving acupressure greatly facilitates the relaxation condition of pregnant women, thus creating an effect in the form of a sense of comfort. This happens because the stimulation given to the combination of meridian points will be forwarded to the posterior hypothalamus to further produce endorphine hormones which have a major influence on feeling

comfortable and relaxed (R. I. Hartono, 2012). In a relaxed body, the secretion of the hormone cortisol can be prevented so that a decrease in blood pressure can occur. Conversely, if cortisol levels in the blood are high, there will be an increase in plasma renin, angiotensin II and an increase in the sensitivity of blood vessels to catecholamines which cause high blood pressure (Fraser & Cooper, 2009)

Giving acupressure can also help individuals to create conditions of relaxation (Schiff et al., 2007). As stated by Li J et.al (2018) that stimulation at several acupressure points can increase the frequency of alpha waves so as to provide a sedative effect (Li et al., 2018). Therefore, giving acupressure can have a beneficial effect on reducing anxiety levels of pregnant women.

CONCLUSION

Giving acupressure at the Ex-HN3 (yintang) and P6 (neiguan) meridians every day for a week with a duration of 2 minutes in third trimester pregnant women has an effect on decreasing anxiety levels.

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