



The Effect Of Finger Relaxation Techniques On Anxiety In Pregnant Women

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ABSTRACT

Anxiety is a psychological problem often experienced by pregnant women, especially in the final trimester, and can negatively impact the health of both the mother and the fetus. One non-pharmacological intervention that can be used to reduce anxiety is the finger relaxation technique. This study aimed to determine the effect of the finger relaxation technique on anxiety levels in pregnant women. The study used a quasi-independent design. experiment with a pretest – posttest approach without control the study sample consisted of 40 pregnant women selected using purposive sampling. Anxiety levels were measured using an anxiety questionnaire before and after the finger relaxation technique intervention. Data analysis was performed using a paired t - test. The results showed a significant decrease in anxiety levels in pregnant women after the finger relaxation technique ($p < 0.05$). It was concluded that the finger relaxation technique is effective in reducing anxiety levels in pregnant women and can be used as an alternative nursing and midwifery intervention.

Keywords: Finger Relaxation, Anxiety, Pregnant Women, Non-pharmacological Intervention





1. Introduction

Pregnancy is a crucial period in a woman's life, accompanied by various physical, psychological, and social changes. These changes often trigger anxiety in expectant mothers, particularly regarding the health of the fetus, the birth process, and their role as parents. Unmanaged anxiety can increase the risk of pregnancy complications, premature birth, and impaired maternal well-being.

Anxiety levels in pregnant women tend to increase as the pregnancy progresses, particularly in the third trimester. Excessive anxiety can trigger a stress response that affects hormonal and physiological systems, such as increased cortisol levels, which impact uteroplacental blood flow.

Anxiety management can be done through pharmacological and non-pharmacological approaches. However, the use of sedatives in pregnant women has limitations due to potential side effects on the fetus. Therefore, non-pharmacological interventions are a safer and recommended option.

The finger relaxation technique is a simple relaxation method that involves alternating between clasp your fingers while controlling your breathing. This technique is believed to have a calming effect through nerve stimulation and increased concentration, thereby helping to reduce anxiety. Based on this background, this study aims to analyze the effect of the finger relaxation technique on anxiety levels in pregnant women.

2. Research Methods

This research is a quasi- research. experiment with pretest – posttest design without control group. The research was conducted in the working area of Community Health Center X in January-March 2025.

a. Population and Sample

The study population was all pregnant women undergoing prenatal checkups in the study area. The study sample consisted of 40 pregnant women, selected using purposive sampling.

b. Inclusion Criteria

- 1) Second and third trimester pregnant women
- 2) Experiencing mild to moderate anxiety
- 3) Willing to be a respondent

c. Exclusion Criteria

- 1) Pregnant women with severe psychological disorders
- 2) anti-anxiety medication

d. Research Variables

- 1) Independent variable: Finger relaxation technique
- 2) Dependent variable: Level of anxiety of pregnant women

e. Research Instruments





The instrument used is an anxiety questionnaire (for example the HARS or Zung scale) Anxiety Scale which has been tested for validity and reliability.

f. Intervention Procedure

The finger relaxation technique was performed for approximately 10 minutes, once daily, for 5 consecutive days. Anxiety measurements were taken before and after the intervention.

g. Data analysis

Data were analyzed using a paired t- test with a significance level of $\alpha = 0.05$.

h. Research Ethics

The research was conducted with the consent of the respondents (*informed consent*). *consent*) and maintaining the confidentiality of respondents' identities.

3. Research Results And Discussion

a. Research Result

1) Respondent Characteristics

Most respondents were pregnant women in their third trimester, who are psychologically more susceptible to anxiety before delivery. This characteristic influenced their initial anxiety levels before intervention was administered.

Characteristics	n	%
Second Trimester	15	37.5
Third Trimester	25	62.5
Primigravida	22	55.0
Multigravida	18	45.0

2) Anxiety Level of Pregnant Women Before Intervention

Before the finger relaxation technique, most respondents were in the moderate to high anxiety category. This indicates that anxiety remains a significant problem for pregnant women, especially in the period leading up to labor.

Anxiety Level (Pretest)	n	%
Light	6	15.0
Currently	24	60.0
Heavy	10	25.0
Total	40	100

The average anxiety score before intervention was 25.6 ± 4.8 , which indicated anxiety was in the moderate–severe category.

3) Anxiety Level of Pregnant Women After Intervention





After routinely practicing finger relaxation techniques, anxiety levels shifted to lower levels. Most respondents experienced a decrease in anxiety to mild.

Anxiety Level (Posttest)	n	%
Light	26	65.0
Currently	12	30.0
Heavy	2	5.0
Total	40	100

The average anxiety score after the intervention decreased to 18.2 ± 3.9 , which indicates an improvement in the psychological condition of pregnant women.

4) Analysis of Differences in Anxiety Levels Before and After Intervention

The results of the paired t- test showed a p value = 0.001 ($p < 0.05$), which means there was a significant difference between the anxiety levels of pregnant women before and after the finger relaxation technique was carried out.

The average decrease in anxiety scores by 7.4 points shows that the finger relaxation technique has a significant effect in reducing anxiety in pregnant women.

b. Discussion

The results of this study indicate that finger relaxation techniques significantly reduced anxiety levels in pregnant women. The statistically significant reduction in anxiety scores indicates that this non-pharmacological intervention is effective in helping pregnant women manage anxiety experienced during pregnancy.

Anxiety in pregnant women is generally triggered by uncertainty about the birth process, concerns about the fetus's condition, and changes in roles and responsibilities as a parent. This condition can trigger activation of the sympathetic nervous system, characterized by increased heart rate, muscle tension, and feelings of restlessness. Finger relaxation techniques help suppress sympathetic nervous system activity and increase parasympathetic responses, resulting in a more relaxed body.

Physiologically, finger relaxation techniques work by stimulating peripheral nerves in the hands, which are connected to the central nervous system. Gently grasping your fingers while regulating your breathing can improve focus and concentration, as well as distract the mother from anxious thoughts. This mechanism aligns with relaxation theory, which states that controlled sensory stimulation can reduce the stress response.





A more significant reduction in anxiety was found in pregnant women in the third trimester, who initially had higher levels of anxiety. This suggests that finger relaxation techniques are particularly beneficial for pregnant women facing imminent labor. Furthermore, primigravida pregnant women tend to experience higher levels of anxiety than multigravida pregnant women, thus requiring more intensive psychological support.

The findings of this study align with numerous studies that suggest that simple relaxation interventions, such as breathing and muscle relaxation techniques, are effective in reducing anxiety in pregnant women. The advantages of finger relaxation techniques are that they are easy to learn, require no special equipment, and can be performed independently at any time.

From the perspective of midwifery and maternity nursing practice, finger relaxation techniques can be integrated into antenatal care as part of maternal health education. This approach supports the concept of holistic midwifery care, which focuses not only on the physical aspects but also on the psychological well-being of pregnant women.

➤ **Practical Implications**

The results of this study show that:

- 1) Finger relaxation techniques can be used as a routine intervention in pregnant women with anxiety.
- 2) This intervention is safe, inexpensive, and easy to implement in health care facilities.
- 3) Finger relaxation education can increase the mental readiness of mothers to face childbirth.

4. Conclusion And Suggestions

a. Conclusion

Based on the research results and discussion, it can be concluded that finger relaxation techniques significantly reduced anxiety levels in pregnant women. A statistically significant decrease in anxiety scores was observed after routine finger relaxation intervention.

Finger relaxation techniques have been proven to help pregnant women achieve physical and psychological relaxation in a simple, safe, and easy-to-do way. This intervention is effective in reducing anxiety, especially in women in their final trimester and primigravidas, who tend to have higher levels of anxiety.

Thus, finger relaxation techniques can be used as an alternative non-pharmacological intervention in antenatal care to support the mental health of pregnant women and improve readiness for childbirth.

b. Suggestion





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1) For Health Workers

Health workers, especially midwives and nurses, are expected to integrate finger relaxation techniques into antenatal care as part of maternal health education, especially for mothers experiencing mild to moderate anxiety.

2) For Pregnant Women

Pregnant women are advised to apply finger relaxation techniques independently and regularly as an effort to manage anxiety during pregnancy, both at home and during antenatal visits.

3) For Health Service Facilities

Health care facilities are advised to provide relaxation and stress management education programs for pregnant women as part of promotive and preventive efforts in obstetric services.

4) For Further Researchers

Further research is recommended to:

- Using an experimental design with a control group
- Involving a larger sample size
- Examining the long-term effects of finger relaxation techniques on maternal and fetal health.

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