

# The influence of family support in alleviating back pain among pregnant wome

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## ABSTRACT

Massage therapy can be provided to alleviate back pain in pregnant women with the aim of enhancing physical relaxation, making it safe and without adverse effects on the mother or fetus. This therapy can be performed by anyone, including family members serving as birth companions. This study aimed to determine the effect of family accompaniment on skills in managing back pain. This research employed a quasi-experimental design with a one-group pretest-posttest approach. The sample consisted of 30 pregnant women at Banda Sakti Public Health Center. Data were analyzed using the paired t-test. The results showed that the mean pretest skill score was 30.83, which increased to 79.72 in the posttest, with a p-value of 0.000. The study concludes that family-based accompaniment has a significant effect on improving skills in managing back pain among pregnant women at Banda Sakti Public Health Center.

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## INTRODUCTION

Pregnancy is a physiological condition experienced by all women. The pregnancy period is divided into three trimesters: the first trimester (gestational age 1–12 weeks), the second trimester (12–28 weeks), and the third trimester (28–40 weeks) (Azward et al., 2021; Haryati et al., 2024). These trimesters are classified based on fetal development in the uterus, as well as the physical and psychological changes experienced by the mother. The changes occurring in each trimester differ according to developmental stages, particularly in the third trimester. This is because the weight of the pregnancy reaches its maximum during this period, resulting in increased discomfort for pregnant women in the third trimester (Pangesti et al., 2022; Suadnyani, 2022).

At the beginning of the third trimester, pregnant women often experience psychological and physical complaints that may negatively affect their health. Discomfort during pregnancy, especially in the third trimester, may include shortness of breath, lower back pain, hemorrhoids, sleep disturbances, pelvic pain, dizziness, abdominal pain, leg cramps, frequent urination, and discomfort due to sudden urges to urinate or anxiety related to childbirth (Susanti & Baska, 2023; Syalfina et al., 2022).

Back pain is one of the most common complaints experienced by pregnant women during the third trimester. Lower back pain occurring in late pregnancy arises as the uterus enlarges and the fetus grows. As the body's center of gravity shifts forward, pregnant women must adjust their posture to maintain balance. Consequently, the body compensates by pulling the back further backward, which increases the curvature of the lower spine (lordosis). This also causes the spinal muscles to shorten (Mutiarra et al., 2024; Pawestri et al., 2023). These changes lead to tension in the back muscles and ligaments, resulting in lower back pain, which is frequently experienced toward the end of pregnancy (Reeder, 2019).

Back pain is a primary physiological complaint during pregnancy that can negatively affect sleep quality, physical condition, work performance, social life, and household activities. Therefore, appropriate management is needed to reduce pain and discomfort in pregnant women. Several strategies that can be implemented include engaging in water-based exercises such as swimming, using abdominal support belts, using supportive pillows during sleep, and providing acupuncture, massage, and other therapeutic interventions (Gozali et al., 2020; Surya et al., 2024; Suryanti et al., 2021).

Family support for pregnant women includes providing time to accompany them during antenatal check-ups (reminding them of scheduled appointments), actively listening to their concerns (acknowledging their physical condition), assisting with household tasks, and offering care and emotional support. Families are also encouraged to help prepare nutritious meals, assist the mother in purchasing comfortable maternity clothing (such as dresses or loose-fitting garments), and provide gentle massage (Arummega et al., 2022; Ety et al., 2020). Massage therapy is a non-pharmacological treatment that can help reduce back pain in pregnant women. Massage can relieve muscle and joint pain, improve mobility, and enhance blood circulation, one of which includes floral massage (Sari et al., 2025).

Family accompaniment with *effleurage* massage training differs from general family support. General family support (emotional, informational, and instrumental) is a vital foundation, aimed at creating psychological well-being and a safe environment for pregnant women. However, family accompaniment in the context of *effleurage* massage training for pregnant women has a conceptual distinction that highlights the active, directed, and technical role of the family member. Its objective is to provide skillful physical and technical assistance to reduce back pain and induce relaxation through the massage technique (Arummega et al., 2022; Sari et al., 2025).

Based on the above discussion, family autonomy in managing back pain among pregnant women is an urgent issue that requires serious attention. This study is essential to enable families to independently perform massage techniques to help reduce back pain in pregnant women. Therefore, the present study aims to determine the effect of family accompaniment on skills in managing back pain among pregnant women.

## RESEARCH METHOD

The research method applied in this study was a pre-experimental design, which is a type of research that does not utilize a control group. This study employed a one-group pretest-posttest design, in which the variables were observed or measured before the intervention (pretest), followed by repeated measurements after the intervention was administered (posttest). The population and sample in this study consisted of 30 participants (Firdaus & Zamzam, 2018).

The instruments in this study were the SOP (*Standard Operating Procedure*) for *effleurage* massage and the *effleurage* massage checklist. The checklist consisted of two parts: the first part contained respondent data, namely name, age, education, and occupation. The second part contained the steps for the *effleurage* massage technique. Data collection comprised three stages: the first stage assessed the respondents' skill in the *effleurage* massage technique, the second stage involved providing family accompaniment with *effleurage* massage training, and the third stage involved assessing the respondents' skill after the intervention was given. The collected data was

subsequently analyzed using the paired t-test. This study was approved by the Research Ethics Committee of Poltekkes Kemenkes Aceh, with approval number: DP.04.03/12.7/228/2024.

## RESULTS AND DISCUSSIONS

### Research Results

#### Univariate Analysis

**Table 1.** Frequency distribution of respondents' characteristics based on age, education, and occupation

Characteristics	f	%
Age		
20-30 years	9	30.0
31-40 years	15	50.0
41-50 yeras	6	20.0
Education		
SMA	21	70.0
D3/S1	9	30.0
Occupation		
Self-employed	19	63.3
Private sector	8	26.7
PNS	3	10.0

In the table above, it can be seen that, in terms of age, most respondents were between 31 and 40 years old, accounting for 50%. Regarding education, the majority of respondents had a high school educational background, with a proportion of 70%. Meanwhile, for occupational characteristics, most respondents were self-employed, representing 63.3%.

#### Bivariate Analysis

**Table 2.** The effect of family accompaniment on respondents' skills

Skills	N	Mean	Rerata	Sig.
Pretest	30	30.83	-48.88	0,000
Posttest	30	79.72		

Based on the table above, the average pretest skill score of the respondents was 30.83, while the average posttest skill score was 79.72. This indicates an increase in respondents' skill scores before and after the intervention, with a mean difference of -48.88. The results of the statistical test showed a p-value of 0.000, indicating that family-based accompaniment had a significant effect on improving family skills in managing back pain among pregnant women at Banda Sakti Public Health Center.

#### Discussions

Based on the table above, the average pretest skill score of the respondents was 30.83, while the average posttest skill score was 79.72. This indicates an increase in respondents' skill scores before and after the intervention, with a mean difference of -48.88. The results of the statistical test showed a p-value of 0.000, indicating that family-based accompaniment had a significant effect on improving family skills in managing back pain among pregnant women at Banda Sakti Public Health Center.

Spinal pain in third-trimester pregnant women that is not promptly managed can interfere with daily activities such as sitting, moving from bed, lifting, or carrying objects. This condition may worsen when the pain radiates to the pelvic and lumbar areas, leading to difficulty in walking, and in some cases, pregnant women may require crutches or other walking aids (Putri et al., 2021).

Prenatal massage is one of the complementary therapies proven to be effective in reducing discomfort and back pain during pregnancy. This therapy helps reduce fatigue and increase energy

levels by facilitating the removal of metabolic waste products through the lymphatic system and blood circulation. Discomforts experienced by pregnant women, such as cramps, tension, and muscle stiffness, tend to decrease after massage, as improved circulation eases the workload of the heart and reduces blood pressure, allowing the mother to feel more refreshed. Additionally, the release of endorphins during the massage helps pregnant women feel more relaxed (Afni & Ristica, 2023; Lestaluhu, 2022).

Anggasari et al., 2025, stated that there was an improvement in respondents' skills after receiving education and simulation of the effleurage massage technique using ginger oil in reducing back pain among pregnant women. A study conducted by Fatmasari et al., 2023, found an increase in pregnant women's knowledge before and after receiving health education on effleurage massage for reducing back pain during pregnancy.

Family support can be provided in various ways, such as taking the time to accompany the mother during antenatal care (ANC) visits (including reminding her of scheduled appointments), offering attention by listening to her complaints and understanding her physical changes, as well as assisting with household tasks. In addition, families may help prepare or cook nutritious meals for the mother, purchase comfortable maternity clothing (such as loose dresses), and provide massage to enhance maternal comfort (Etty et al., 2020). Massage therapy is one of the effective non-pharmacological methods for reducing back pain in pregnant women. Massage can help relieve muscle tension and pain, improve mobility, and enhance blood circulation, with one of the techniques used being effleurage massage (Aryaneta et al., 2024; Hartati et al., 2015).

In the Indonesian Dictionary (KBBI), the term *keterampilan* (skill) is derived from the word *terampil*, which means competent, capable, and adept in completing tasks. Skill itself refers to the proficiency in performing a task. Generally, skills are defined as a person's ability, knowledge, and expertise to carry out specific tasks or activities effectively. Skills can be acquired through formal education, training, and experience in various settings, such as the workplace, volunteer activities, and personal interests (Hariyadin & Nasihudin, 2021; Komariah et al., 2023)

The study conducted by Sari, 2023, showed that after receiving massage administered by their husbands, most participants experienced mild anxiety levels, totaling 15 respondents (80.25%). It can therefore be concluded that the husband's role in providing endorphin massage has a significant effect on reducing back pain among third-trimester pregnant women.

The study conducted by Aulia et al., 2024, found that after the demonstration of effleurage massage was provided, most respondents in the intervention group demonstrated adequate skills, with 13 respondents (76.5%), while in the control group, 12 respondents (70.6%) were categorized as skilled. The Mann-Whitney test showed a significant value ( $p = 0.00$ ), indicating that the demonstration of effleurage massage had a significant effect on respondents' skills in managing back pain among pregnant women.

To improve an individual's skills, learning or training is required. In this study, family skills were enhanced by providing guidance to the families of pregnant women in managing back pain, which is commonly experienced during pregnancy. This accompaniment is beneficial for both the pregnant woman and her family, as it enables them to address discomfort or complaints promptly without requiring the mother to immediately visit a healthcare facility.

## CONCLUSION

The findings of this study indicate that family accompaniment has a significant effect on improving family skills related to effleurage massage in managing back pain among pregnant women. It is expected that healthcare workers will incorporate *effleurage* massage into the pregnant women's class to manage back pain, and also utilize it as educational and instructional material for pregnant women and their families.

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