EFFECTIVENESS OF FAMILY-BASED INDEPENDENT ASSISTANCE IN MANAGING BACK PAIN IN PREGNANT WOMEN

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ABSTRACT

As pregnancy progresses, back pain often intensifies due to changes in posture and the shifting center of gravity. Facilitators can help pregnant women and their families gain the skills and confidence to manage back pain through various activities. Behavioral changes in the family, including the husband and close relatives, empower them to independently handle discomfort during pregnancy. Effleurage massage, a back massage technique, can enhance relaxation, is effective, safe, simple, and can be performed by anyone, including the pregnant woman's companion, without adverse effects on the mother or fetus. The purpose of this study is to determine the effectiveness of family-based self-reliance guidance in addressing back pain in pregnant women in the Banda Sakti Health Center area. The research design used is a quasi-experimental one-group pretest-posttest design. The population in this study consisted of all companions of pregnant women in the Banda Sakti Health Center area, totaling 30 people. Pretest data collection was conducted before the intervention, followed by family guidance, and then a posttest was conducted. Data analysis using the paired t-test showed that the average knowledge score of respondents during the pretest was 3.47, and the average posttest knowledge score was 8.17, while the average pretest skill score was 30.83, and the average posttest skill score was 79.72, with a p-value of 0.000, indicating that family-based self-reliance guidance is effective in increasing knowledge and skills in managing back pain in pregnant women.

Keywords: Back Pain, Family-Based Independent Assistance, Knowledge, Skills

INTRODUCTION

Pregnancy and childbirth are among the most significant events in a woman's life. Pregnancy is a natural and physiological event (Azward et al., 2021). As pregnancy enters the third trimester, the mother experiences more complaints, both psychological and physical, affecting her comfort. Complaints in pregnant women, especially in the third trimester, include shortness of breath, lower back pain, hemorrhoids, sleep disturbances, pelvic pain, dizziness, abdominal cramps, leg cramps, frequent urination, and discomfort due to sudden contractions and anxiety (Sukorini, 2017).

Back pain is one of the most common discomforts experienced by pregnant women in the third trimester. Back pain during the third trimester occurs as the uterus enlarges with the growth of the fetus, causing the body's center of gravity to shift forward. As a result, pregnant women must adjust their posture to maintain balance, leading the body to pull the back more backward. This causes the lower back to curve more (lordosis) and the back muscles to shorten (Mafikasari & Kartikasari, 2015). This leads to tension in the back muscles and ligaments, causing back pain, which is often felt towards the end of pregnancy (Reeder, Martin, 2019).

Family assistance, such as providing time to accompany ANC check-ups (reminding the check-up schedule), paying attention to listen to the mother's complaints (accepting the mother's body condition), helping with the mother's tasks, providing or cooking nutritious food for the mother, helping the mother buy maternity clothes (comfortable loose dresses), and helping with massage (Christina Roos Etty, 2020). Massage therapy is one of the non-pharmacological therapies that can reduce back pain in pregnant women. Massage reduces muscle tension and pain, increases mobility, and improves blood circulation, including effleurage massage (Hartati et al., 2015).

METHODS

The research method used is a pre-experimental design, which is a type of research that does not have a control variable. Using a one-group pretest-posttest design approach, the variables are observed/measured before the intervention (pretest), then the intervention is given, and after the intervention, measurement/observation is conducted (Sanusi, 2013). The population and sample in this research consisted of 30 people.

Instruments are tools used for data collection. The instruments used in this research are the SOP for Effleurage Massage, knowledge and skills questionnaires. Data analysis was performed using the paired t-test. This research was approved by the Aceh Ministry of Health Polytechnic Research Ethics Commision, with number: DP.04.03/12.7/228/2024.

RESULTS AND DISCUSSION
RESULTS

Table 1.
**Frequency Distribution of Respondents Characteristics Based on Age,
Education, and Occupation**

No	Characteristics	Frequency	Percent
1	**Age**		
	20-30 Years	9	30.0
	31-40 Years	15	50.0
	41-50 Years	6	20.0
2	**Education**		
	SMA	21	70.0
	D3/S1	9	30.0
3	**Occupation**		
	Entrepreneur	19	63.3
	Private Sector Employee	8	26.7
	Civil Servant	3	10.0

Based the table 1, it is known that, in terms of age characteristics, the majority of respondents are aged between 31-40 years, accounting for 50%. In terms of educational characteristics, the majority of respondents have a high school education, accounting for 70%. In terms of occupational characteristics, the majority of respondents are self-employed, accounting for 63.3%.

Table 2.
**Normality Test of Knowledge and Skills Data for Pretest and
Posttest Intervention**

No	Variable		df	Significance	Description
1	Knowledge	Pretest	30	0,078	Normal
		Posttest	30	0,020	Not normal
2	Skills	Pretest	30	0,102	Normal
		Posttest	30	0,041	Not normal

Based on the table 2, it is known that, for the knowledge variable, the pretest data is normally distributed with a significance value of 0.078, and the posttest data is not normally distributed with a significance value of 0.020. For the skills variable, the pretest data is normally distributed with a significance value of 0.102, and the posttest data is not normally distributed with a significance value of 0.041. Therefore, bivariate data analysis uses parametric tests.

Table 3.
The Effectiveness of Family-Based Support on Respondents' Knowledge

No	Knowledge	N	Mean	Rerata	Sig.
1	Pretest	30	3.47	-4.70	0,000
2	Posttest	30	8.17		

Based on the table 3, it is known that the average pretest knowledge score of respondents was 3.47, and the average posttest knowledge score was 8.17. This indicates an increase in respondents' knowledge scores before and after the intervention, with a mean difference of -4.70. The statistical test results showed a p-value of 0.000, which suggests that there is an effectiveness of family-based independence assistance on the knowledge of families in managing back pain in pregnant women in the Banda Sakti Health Center area.

Table 4.
Effectiveness of Family Independence-Based Assistance on Respondents' Skills

No	Skills	N	Mean	Rerata	Sig.
1	Pretest	30	30.83	-48.88	0,000
2	Posttest	30	79.72		

Based on the table 4, it is known that the average pretest skill score of respondents was 30.83, and 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 statistical test results showed a p-value of 0.000, which suggests that there is an effectiveness of family-based independence assistance on the skills of families in managing back pain in pregnant women in the Banda Sakti Health Center area.

DISCUSSION

Effectiveness of Family-Based Assistance on Respondents' Knowledge

The research results showed that the average pretest knowledge score of respondents was 3.47, and the average posttest knowledge score was 8.17. This indicates an increase in respondents' knowledge scores before and after the intervention, with a mean difference of -4.70. The statistical test results showed a p-value of 0.000, which suggests that there is an effectiveness of family-based assistance on the knowledge of families in managing back pain in pregnant women in the Banda Sakti Health Center area.

Back pain is one of the most common discomforts experienced by pregnant women in the third trimester. Back pain during the third trimester occurs as the uterus enlarges with the growth of the fetus, causing the body's center of gravity to shift forward. As a result, pregnant women must adjust their posture to maintain balance, leading the body to pull the back more

backward. This causes the lower back to curve more (lordosis) and the back muscles to shorten (Mafikasari & Kartikasari, 2015).

A complementary therapy that can relieve back pain in pregnant women is effleurage massage. Effleurage massage is a light massage with gentle strokes without strong pressure on the mother's back using the palms and fingers. The massage is given for 30 minutes with a frequency of 40 times (Ulya et al., 2017).

Assistance is a process of guidance or providing opportunities to the community (in this case, pregnant women and their families) carried out by companions or facilitators through a series of activities that enable the community to have the ability and confidence to face problems around their lives. The main goal of assisting pregnant women and their families is to change the behavior of pregnant women and their families (husbands and close relatives), empowering them to recognize signs and dangers of pregnancy and to make decisions regarding pregnancy and childbirth issues (Suarayasa, 2017).

Knowledge is the understanding or awareness of something, such as facts, concepts, theories, or skills. Knowledge can be acquired in various ways, such as learning, reading, observing, or experiencing. Knowledge develops over time, adapting to experiences that create contextual relationships between new situations and events. Knowledge has predictive capabilities as a result of recognizing a pattern (Notoatmodjo, 2018).

Research conducted by Muawana found that effleurage massage can reduce back pain in late trimester pregnant women, with 60% of pregnant women experiencing moderate pain before the intervention and 46.67% experiencing mild pain after the intervention (Siti Muawanah, 2023).

Ariningtyas stated in her research that after applying effleurage massage for 3 days, there was a decrease in the back pain scale in pregnant women. Pregnant women and their families should be able to independently apply effleurage massage to help reduce back pain and provide comfort to pregnant women (Ariningtyas et al., 2023).

Research has shown the effectiveness of family assistance in effleurage massage for back pain in pregnant women in increasing family knowledge. The lack of family knowledge can lead to unresolved discomfort in pregnant women.

Effectiveness of Family-Based Assistance on Respondents' Skills

The research results showed that the average pretest skill score of respondents was 30.83, and 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 statistical test results showed a p-value of 0.000, which suggests that there is an effectiveness of family-based independence assistance on the skills of families in managing back pain in pregnant women in the Banda Sakti Health Center area.

Back pain in third-trimester pregnant women, if not promptly and properly addressed, can disrupt the mother's condition during activities such as sitting, moving from bed, lifting or moving objects around, and more severe conditions occur when the pain spreads to the pelvic and lumbar areas, causing difficulty walking and requiring crutches or other walking aids (Putri et al., 2021).

Prenatal massage is a complementary therapy that can reduce discomfort and back pain during pregnancy. Discomforts such as cramps, muscle tension, and stiffness can be reduced due to improved circulation, which eases the heart's workload and stabilizes blood pressure, making pregnant women feel more refreshed. Additionally, the endorphins released during massage help the mother relax. (Lestaluhu, 2022).

Massage therapy is one of the non-pharmacological therapies that can reduce back pain in pregnant women. Massage reduces muscle tension and pain, increases mobility, and improves blood circulation, including effleurage massage (Hartati et al., 2015).

In the Indonesian Dictionary (KBBI), the term "skills" comes from the word "skilled," which means capable of completing tasks, able, and agile. Skills can be acquired through formal education, training, and experiences gained in various environments such as work, volunteer opportunities, and personal interests (Hariyadin & Nasihudin, 2021).

To improve someone's skills, learning or training is needed. In this study, to improve family skills, assistance was provided to the families of pregnant women in managing back pain often experienced by pregnant women. This assistance is useful for pregnant women and their families so that the complaints or discomforts of pregnant women can be addressed immediately without the need for the mother to visit health services.

CONCLUSION
The results of this research can be concluded that family-based self-reliance guidance is effective in increasing knowledge and skills in managing back pain in pregnant women.

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