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Perception of Pregnant Women with Hypertension Regarding Acupressure in Managing Discomfort During Pregnancy

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Abstract
Pregnancy is a physiological process accompanied by physical, psychological, and hormonal changes that can cause various discomforts, such as back pain, nausea, sleep disturbances, and increased blood pressure. Hypertension in pregnancy remains one of the complications that contributes to the high risk of maternal health. Acupressure, as a non-pharmacological complementary therapy, is known in pregnancy practice, but its utilization in pregnant women with hypertension still requires adequate understanding and acceptance. This study aims to describe the perceptions of pregnant women with hypertension regarding the use of acupressure in managing pregnancy discomfort. This research uses a descriptive quantitative design with a survey approach. The study population consists of all pregnant women with hypertension who attended antenatal visits at the Gajah Mada Health Center in Tembilahan from October 20-22, 2025. A total of 50 respondents were included using the total sampling technique. Data was collected using a structured questionnaire that measured the knowledge and perceptions of pregnant women regarding acupressure, and then analyzed descriptively. The research results indicate that the majority of respondents have a good level of knowledge about acupressure (88%) and sufficient knowledge (12%). A total of 92% of respondents showed a positive perception toward the use of acupressure, while 8% had a negative perception. This finding indicates that the majority of pregnant women with hypertension have a positive perception of acupressure as a complementary therapy for managing discomfort during pregnancy.

Keywords: Perception; Pregnant Women; Gestational Hypertension; Acupressure; Complementary Therapy.

1.0 Introduction
Pregnancy is a complex and unique physiological process for every woman, accompanied by physical, psychological, and hormonal changes. These changes frequently result in various discomforts, including back pain, nausea, sleep disturbances, muscle cramps, and complaints related to increased blood pressure. Within the context of maternal health,

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discomforts during pregnancy require appropriate attention through comprehensive antenatal care (ANC) services. One of the major complications that remains a significant concern in maternal health is hypertensive disorders of pregnancy. The World Health Organization (WHO, 2023) reports that hypertension contributes to approximately 14% of maternal deaths globally. In Indonesia, data from the Ministry of Health of the Republic of Indonesia indicate that about 10–15% of pregnant women experience hypertension, including gestational hypertension, preeclampsia, and eclampsia.

Hypertension during pregnancy affects not only physical health but is also associated with psychological aspects such as anxiety and persistent discomfort throughout pregnancy. Therefore, efforts to improve maternal health through ANC services should not be limited to medical monitoring alone but should also address maternal comfort and well-being. In maternal healthcare practice, various non-pharmacological approaches have been introduced as supportive care during pregnancy. One such approach is acupressure, a complementary therapy involving manual pressure on specific points of the body to promote relaxation and comfort in pregnant women. Acupressure has been reported to be used for common pregnancy-related complaints such as nausea, back pain, and sleep disturbances (Wang *et al.*, 2022; Li *et al.*, 2023). In this study, however, acupressure is positioned as a complementary practice perceived by pregnant women within the context of antenatal care, rather than as an intervention evaluated for clinical effectiveness.

Despite the increasing recognition of complementary therapies, the utilization of acupressure within maternal healthcare services in Indonesia remains limited. This condition is closely related to pregnant women's level of knowledge, perceptions of complementary therapies, and the availability of information delivered during ANC services. Furthermore, most studies in Indonesia have focused on clinical interventions, while research describing pregnant women's knowledge and perceptions of complementary therapies within antenatal care remains relatively scarce. Pregnant women's perceptions are an important determinant of acceptance and sustained engagement in health care practices during pregnancy.

Perception in the health context is influenced by individual experiences, educational background, beliefs, and information obtained through antenatal care services. According to the Health Belief Model, individuals' decisions to accept or reject a health care practice are strongly influenced by their perceived benefits and perceived barriers (Rosenstock, 1974; Nursalam, 2022). Therefore, understanding pregnant women's perceptions of acupressure is essential to strengthening maternal health education and improving the quality of ANC services.

Based on this rationale, the present study aims to describe the knowledge and perceptions of pregnant women with hypertension regarding the use of acupressure to manage pregnancy-related discomforts as part of antenatal care. The findings are expected to provide a foundation for the development of maternal health education and the reinforcement of promotive–preventive approaches within holistic and sustainable antenatal care services.

2.0 Methods

This study employed a quantitative descriptive design aimed at describing pregnant women's perceptions of acupressure in managing pregnancy-related discomforts among

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those with hypertension. The study was conducted at Gajah Mada Primary Health Center (Puskesmas Gajah Mada), Tembilahan, Indonesia, from October 20 to October 22, 2025.
Population and Sample The study population comprised all pregnant women diagnosed with hypertension who attended antenatal care (ANC) services at the study site during the data collection period. A total of 50 participants were included using a total sampling technique, whereby all eligible individuals were recruited as study respondents.
Data were obtained from:

1. Primary data, collected through a structured self-administered questionnaire.
2. Secondary data, obtained from maternal health records at the health center.

The research instrument was a structured questionnaire consisting of two sections:

1. Knowledge of acupressure, including definition, general purpose, perceived benefits, and utilization during pregnancy.
2. Perception toward acupressure, covering attitudes, acceptance, beliefs, and views regarding the use of acupressure as a complementary therapy in antenatal care.

Content validity was established through expert judgment by specialists in maternal health and maternity nursing to ensure relevance and clarity of the questionnaire items.
The reliability of the instrument was tested using Cronbach's alpha coefficient. The questionnaire was considered reliable when Cronbach's alpha was ≥ 0.70, indicating acceptable internal consistency.

Scoring Criteria

- Knowledge level was categorized as:
  - Good: $\geq 76\%$ of the total score
  - Moderate: 56–75% of the total score
  - Poor: $\leq 55\%$ of the total score
- Perception was measured using a Likert scale and categorized as:
  - Positive perception: score $\geq$ mean value
  - Negative perception: score < mean value

Data processing included editing, coding, scoring, data entry, and cleaning. Data were analyzed using descriptive statistics, including frequencies and percentages, to summarize participants' knowledge and perceptions regarding acupressure.

2.1 Ethical Considerations

This study received ethical approval from an authorized Health Research Ethics Committee. All participants were provided with detailed information regarding the study objectives, procedures, and their rights as research participants. Written informed consent was obtained prior to data collection. Participation was voluntary, and confidentiality and anonymity of respondents were strictly maintained throughout the study.

3.0 Results

Characteristics of Respondents: A total of 50 pregnant women with hypertension participated in this study. The mean age of respondents was 26.76 years, with a minimum age of 21 years and a maximum age of 37 years. Most respondents were housewives (40 respondents; 80%), followed by private-sector employees (8 respondents; 16%) and civil

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servants (2 respondents; 4%). Regarding educational background, the majority had completed senior high school education (46 respondents; 92%), while a small proportion had completed junior high school (2 respondents; 4%) and higher education (2 respondents; 4%).

These sociodemographic characteristics are considered relevant in shaping individuals' access to information and their ability to understand health-related messages received during antenatal care services.

Knowledge and Perception of Acupressure Table 1 presents the distribution of respondents' knowledge and perception regarding acupressure in managing pregnancy-related discomforts among pregnant women with hypertension.

Table 1. Knowledge and Perception of Acupressure among Pregnant Women with Hypertension (n = 50)

Variable	Category	n (%)
Knowledge of acupressure	Good	44 (88.0)
	Moderate	6 (12.0)
Perception of acupressure	Positive	46 (92.0)
	Negative	4 (8.0)

Association between Knowledge and Perception: To examine the association between knowledge level and perception toward acupressure, a Chi-square test was performed. The analysis showed a statistically significant association between knowledge and perception (χ^2 test, $p < 0.05$), indicating that respondents with higher levels of knowledge tended to demonstrate more positive perceptions of acupressure.

Similarly, Chi-square analysis was applied to assess the association between selected sociodemographic characteristics (age group, education level, and occupation) and perception of acupressure. The results indicated that education level and occupation were significantly associated with perception ($p < 0.05$), while age was not significantly associated ($p > 0.05$).

These findings suggest that sociodemographic factors, particularly education and employment status, may play a role in shaping pregnant women's perceptions of acupressure within antenatal care settings.

4.0 Discussion

This study described pregnant women's knowledge and perceptions of acupressure in managing pregnancy-related discomforts among those with hypertension. The findings showed that most respondents had a good level of knowledge regarding acupressure (88%), while the remainder demonstrated a moderate level of knowledge (12%). In addition, the majority of respondents reported a positive perception of acupressure (92%), with only a small proportion expressing negative perceptions (8%). These results indicate that, within

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this study population, acupressure is generally viewed positively and is relatively well understood as a complementary approach during pregnancy.

The high proportion of respondents with good knowledge may reflect the increasing availability of maternal health information obtained through antenatal care (ANC) services, counseling by healthcare providers, and exposure to health-related information from various media. In this study, knowledge is interpreted as respondents' understanding of the concept and general use of acupressure, rather than as evidence of clinical outcomes. This descriptive finding is consistent with health education theories suggesting that adequate information exposure is associated with more informed health-related viewpoints (Notoatmodjo, 2018). Similar descriptive patterns have been reported in previous Indonesian studies, where pregnant women demonstrated sufficient awareness of complementary therapies after receiving information through maternal health programs (Sari & Lestari, 2021).

A predominantly positive perception toward acupressure was also observed. This perception reflects respondents' acceptance and favorable views of acupressure as a non-pharmacological, complementary option within antenatal care, rather than an assessment of its effectiveness. Perception is shaped by multiple factors, including prior exposure to information, trust in healthcare providers, and social influences (Azwar, 2019). In the Indonesian context, perceptions of complementary therapies are often intertwined with cultural values that emphasize natural, traditional, and non-invasive approaches to health, particularly during pregnancy.

Cultural factors play an important role in shaping Indonesian women's views toward complementary therapies. Traditional health practices, such as massage, herbal remedies, and other manual therapies, have long been integrated into community-based maternal care. These practices are often transmitted across generations and reinforced by family members, especially older female relatives. Such cultural acceptance may contribute to more favorable perceptions of therapies like acupressure, which are perceived as aligned with traditional values, safe, and supportive of maternal well-being. At the same time, reliance on family advice and community norms may also explain why some women still hold neutral or negative perceptions, particularly when information from healthcare providers is limited or inconsistent.

Although this study identified an association between knowledge level and perception through Chi-square analysis, the findings should be interpreted cautiously. The analytical scope of this study is limited to identifying statistical associations between categorical variables and does not allow for causal inference. The observed association does not imply that higher knowledge leads to more positive perceptions, but rather that these variables coexist within the study population.

Several limitations of this study should be acknowledged. First, the descriptive cross-sectional design limits the ability to explore changes in knowledge or perception over time. Second, the relatively small sample size and the single study setting may restrict the generalizability of the findings to other regions or healthcare contexts in Indonesia. Third, data were collected using self-reported questionnaires, which may be subject to response bias. In addition, cultural beliefs and personal experiences related to complementary therapies were not explored in depth, which could have provided a richer contextual understanding.

Despite these limitations, the findings provide valuable insight into pregnant women's knowledge and perceptions of acupressure within antenatal care services. Understanding these perspectives is important for maternal health programs, as perception and knowledge influence how health information is received and interpreted. Future studies may benefit from larger, multi-center designs and qualitative approaches to further explore cultural and contextual factors influencing women's views on complementary therapies during pregnancy.

Conclusion

This study indicates that the majority of pregnant women with hypertension demonstrated good knowledge and positive perceptions toward acupressure as a complementary approach for managing pregnancy-related discomforts. These findings reflect a favorable level of acceptance of acupressure within the context of antenatal care and maternal health services. The positive perception identified in this study provides valuable information for healthcare providers in developing educational strategies that are aligned with pregnant women's views and informational needs. As this research employed a descriptive design, it does not assess clinical effectiveness. Further studies using analytical or qualitative approaches are recommended to explore factors influencing perceptions in greater depth.

Recommendations

Based on the findings, acupressure may be introduced as a complementary, non-pharmacological option within antenatal education programs, with appropriate emphasis on safety and proper guidance for home practice. Healthcare professionals are encouraged to provide structured and evidence-informed information on complementary therapies as part of comprehensive maternal health care.

Future research should involve larger sample sizes and apply mixed-method or analytical designs to examine the role of socio-demographic, cultural, and experiential factors in shaping pregnant women's perceptions of complementary therapies during pregnancy.

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