

# Knowledge, Family Support, and the Role of Healthcare Professionals as Determinants of Pregnant Women's Participation in Prenatal Yoga

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## ABSTRACT

Pregnancy-related discomfort is associated with decreased quality of life and an increased risk of complications extending to the time of delivery. One complementary midwifery service that serves as a promotive and preventive non-pharmacological intervention to reduce such discomfort is prenatal yoga, which is influenced by factors including knowledge, family support, and the role of healthcare professionals. This study aimed to analyze the determinants of pregnant women's participation in prenatal yoga activities at an independent midwifery practice. A cross-sectional design was employed, involving 24 pregnant women who attended antenatal care. Data were collected using a structured questionnaire and analyzed using Chi-square test. The results indicated that the prevalence of participation in prenatal yoga was relatively high, at 70.8%. The p-values for each determinant were as follows: knowledge ( $p = 0.001$ ), family support ( $p = 0.020$ ), and the role of healthcare professionals ( $p = 0.007$ ). It can therefore be concluded that knowledge, family support, and the role of healthcare professionals are positive determinants of pregnant women's participation in prenatal yoga.

**Keywords:** knowledge; family support; role of healthcare professionals; prenatal yoga

## INTRODUCTION

Pregnancy is a natural physiological process characterized by substantial changes in the physical, psychological, and social dimensions of a woman's life [1]. These multidimensional changes frequently give rise to various complaints, including lower back pain, sleep disturbances, fatigue, anxiety, and increased stress as childbirth approaches [2]. If such conditions are not managed appropriately, they may adversely affect maternal health status as well as fetal growth and development, and may increase the risk of complications during pregnancy and delivery. Therefore, efforts to enhance maternal well-being and improve the quality of antenatal care services require integrated promotive and preventive approaches that address not only physical health but also psychological and social aspects of pregnancy [3].

One non-pharmacological intervention that has gained increasing recognition within complementary midwifery services is prenatal yoga [4]. Prenatal yoga is a modified form of physical exercise specifically designed for pregnant women, integrating body postures, breathing techniques, relaxation strategies, and meditation practices [5]. The primary objective of prenatal yoga is to support physical and psychological preparedness for childbirth, alleviate common pregnancy-related discomforts, and reduce anxiety levels [6]. A growing body of empirical evidence indicates that participation in prenatal yoga can effectively reduce back pain, improve sleep quality, decrease stress and anxiety, and enhance maternal readiness for labor and delivery [7]. These benefits underscore the potential of prenatal yoga as a holistic intervention within antenatal care.

Despite the well-documented benefits of prenatal yoga, participation rates among pregnant women remain relatively low, particularly in primary healthcare settings. The limited utilization of prenatal yoga services is not solely attributable to service availability, but is also influenced by behavioral and social determinants [8]. Maternal knowledge regarding prenatal yoga constitutes a critical factor. Pregnant women who possess adequate understanding of its benefits, safety considerations, and implementation procedures are more likely to develop positive attitudes and stronger motivation to participate in such activities [9]. Conversely, insufficient knowledge may foster misconceptions, including the belief that physical activity during pregnancy poses risks to fetal well-being.

Family support, particularly from spouses or partners, also plays a substantial role in influencing pregnant women's decisions to engage in prenatal yoga [10]. Family support may take both emotional and instrumental forms, such as providing encouragement, granting permission, offering reassurance, and facilitating access to yoga sessions. In the absence of family support, pregnant women may experience hesitation or reluctance to participate, even when they recognize the potential benefits and express personal interest in the activity [11]. Thus, the familial environment serves as a significant contextual factor shaping health-related behaviors during pregnancy.

Another important determinant is the role of healthcare professionals, especially midwives and antenatal care providers. Healthcare professionals are responsible for delivering accurate information regarding the benefits and safety of prenatal yoga, as well as integrating complementary services into routine antenatal counseling [12]. Limited health promotion efforts, inadequate dissemination of information, and insufficient competency in complementary midwifery practices may constitute major barriers to the optimal utilization of prenatal yoga services among pregnant women [13]. Strengthening the capacity of healthcare providers in this domain is therefore essential to ensure evidence-based recommendations and supportive guidance.

Previous studies further highlight the relevance of prenatal yoga in maternal health outcomes. Research conducted by Flora (2025) identified prenatal yoga as the most dominant determinant influencing anxiety levels among third-trimester pregnant women [14]. Additionally, a study by Syarifah and Marlina (2023) concluded that pregnant women's perceptions and decisions to participate in prenatal yoga during the COVID-19 pandemic were influenced by income level, parity, and educational background [22]. These findings suggest that participation in prenatal yoga is shaped by a complex interplay of socioeconomic, psychological, and informational factors.

Based on this background, examining prenatal yoga in relation to maternal knowledge, family support, and the role of healthcare professionals is both relevant and necessary. This study aims to analyze the determinants of pregnant women's participation in prenatal yoga. The findings are expected to provide an evidence base for developing targeted health promotion strategies, strengthening the role of healthcare professionals, and encouraging family involvement in supporting prenatal yoga as part of comprehensive, holistic, and sustainable antenatal care.

## METHODS

This study was conducted at the Independent Midwifery Practice (PMB) of Endah Wiendarti, SST, in Madiun Regency, Indonesia, from January to February 2025. The research employed a quantitative analytic approach using a cross-sectional design. This design was selected to examine the association between maternal knowledge, family support, the role of healthcare professionals, and pregnant women's participation in prenatal yoga at a single point in time.

The study population consisted of all pregnant women who attended antenatal care (ANC) services at PMB Endah Wiendarti, SST, during the study period, totaling 24 individuals. A total sampling technique was applied, whereby all eligible members of the population were included as research participants. Inclusion criteria were pregnant women in the second or third trimester, willingness to participate as indicated by informed consent, and the ability to communicate effectively. Exclusion criteria included pregnant women with significant obstetric complications and those who were uncooperative during questionnaire completion.

The independent variables in this study were maternal knowledge regarding prenatal yoga, family support, and the role of healthcare professionals. The dependent variable was pregnant women's participation (adherence) in prenatal yoga activities. Maternal knowledge was measured using a structured questionnaire assessing understanding of the definition, benefits, safety aspects, and objectives of prenatal yoga. Knowledge scores were categorized into "good" and "poor" based on predetermined cut-off points. Family support was assessed through items measuring emotional, informational, and instrumental support provided to the pregnant woman and was classified as "supportive" or "less supportive." The role of healthcare professionals was evaluated based on the extent to which midwives provided education, motivation, and facilitation related to prenatal yoga, and was categorized as "good" or "inadequate." Participation in prenatal yoga was measured by attendance frequency per month and classified as "adherent" (3–4 sessions per month) or "non-adherent" (1–2 sessions per month). Data were analyzed using the Chi-square test to determine the association between independent variables and participation in prenatal yoga. Statistical significance was determined at a predefined alpha level of 0.05.

## RESULTS

Based on Table 1, the analysis demonstrated that maternal knowledge, family support, and the role of healthcare professionals were significantly associated with pregnant women's participation in prenatal yoga. Maternal knowledge showed a statistically significant relationship with participation in prenatal yoga ( $p = 0.001$ ). Pregnant women with better knowledge regarding the definition, benefits, safety, and objectives of prenatal yoga were more likely to adhere to participation schedules compared to those with limited knowledge. This finding suggests that adequate cognitive understanding may positively influence health behavior and decision-making during pregnancy.

Table 1. Determinants of pregnant women's participation in prenatal yoga at PMB Endah Wiendarti, SST, Madiun Regency in 2025

Variable	Category	Not adherent	Adherent	p-value
Knowledge	Poor	7 (77.8%)	2 (2.22%)	0.001
	Good	0 (0%)	0 (0%)	
Family support	Less supportive	4 (66.7%)	2 (33.3%)	0.020
	Supportive	3 (16.7%)	15 (83.3%)	
Role of healthcare professionals	Poor	6 (85.7%)	1 (14.3%)	0.007
	Good	1 (5.9%)	16 (94.1%)	

Based on Table 1, family support was also significantly associated with participation ( $p = 0.020$ ). Women who received emotional, informational, and instrumental support from their families were more likely to attend prenatal yoga sessions regularly. This highlights the importance of the familial environment in reinforcing positive maternal health behaviors.

Based on Table 1, the role of healthcare professionals demonstrated a significant association with prenatal yoga participation ( $p = 0.007$ ). Pregnant women who perceived that midwives provided sufficient education, motivation, and facilitation were more likely to comply with recommended prenatal yoga attendance. This underscores the critical contribution of healthcare providers in promoting complementary antenatal services.

Overall, the findings indicate that knowledge, family support, and the role of healthcare professionals function as significant determinants of adherence to prenatal yoga among pregnant women in this setting.

## DISCUSSION

Based on the general characteristics of the respondents, the majority of pregnant women were within the age group of 20–35 years. This finding reflects a relatively high level of awareness regarding pregnancy during the optimal reproductive age, at which women are generally considered to be physically and emotionally better prepared to undergo pregnancy and childbirth [15]. Women within this age range typically demonstrate greater physiological readiness and psychological maturity, which may positively influence their health-seeking behavior, including participation in promotive and preventive antenatal activities such as prenatal yoga.

Most respondents had attained secondary or higher education (senior high school and university level). Higher educational attainment facilitates the acquisition, comprehension, and critical evaluation of health-related information, thereby contributing to improved quality of life and health decision-making capacity [16]. This finding is consistent with the study conducted by Syarifah & Marlina, which reported that educational level significantly influences pregnant women's perceptions and willingness to engage in prenatal exercise and yoga. Education enhances cognitive readiness, enabling pregnant women to better understand the benefits and safety aspects of prenatal yoga, ultimately strengthening their adherence behavior.

A substantial proportion of respondents were housewives. In general, housewives may have greater flexibility in managing their time, allowing them more opportunities to access health information and participate in health-promoting activities [16]. Greater time availability may facilitate attendance at prenatal yoga sessions, particularly when such activities are integrated into routine antenatal services. However, time flexibility alone does not guarantee adherence, as behavioral determinants such as knowledge, social support, and professional guidance remain critical.

This study specifically examined the determinants of adherence to prenatal yoga participation, focusing on maternal knowledge, family support, and the role of healthcare professionals. The findings revealed a significant association between maternal knowledge and adherence to prenatal yoga. Pregnant women who demonstrated a higher level of understanding regarding the definition, benefits, objectives, and safety of prenatal yoga were more likely to adhere to recommended participation schedules [17]. This finding aligns with health behavior theories, which posit that behavior grounded in adequate knowledge tends to be more stable and sustainable than behavior that lacks a cognitive foundation. Knowledge shapes beliefs and attitudes, which subsequently influence behavioral intentions and actual practice. In this context, adequate knowledge empowers pregnant women to perceive prenatal yoga not merely as optional physical activity, but as an integral component of antenatal self-care.

Family support emerged as another determinant with comparable importance. The involvement of family members, particularly husbands, in providing emotional encouragement, informational reinforcement, and instrumental assistance significantly influenced maternal adherence to prenatal yoga [18]. During pregnancy, health-related decisions are often made within a familial context rather than individually. Supportive family dynamics may enhance maternal confidence, reduce hesitation, and create a conducive environment for consistent participation in prenatal yoga sessions. Conversely, lack of support may act as a psychological barrier, even when mothers possess adequate knowledge and personal motivation.

The role of healthcare professionals was also significantly associated with adherence to prenatal yoga. Healthcare providers who effectively communicate, deliver clear and accurate information, and provide consistent guidance can substantially increase pregnant women's compliance

with prenatal yoga recommendations [19]. In antenatal care settings, midwives function not only as clinical care providers but also as educators, motivators, and facilitators of behavioral change. Their ability to integrate complementary services such as prenatal yoga into routine counseling sessions may strengthen pregnant women's understanding of its benefits and safety. In this regard, healthcare professionals serve as key agents in shaping and directing maternal adherence behaviors during pregnancy.

Every pregnant woman aspires to experience a healthy and comfortable pregnancy. Consequently, various strategies have been developed to alleviate pregnancy-related discomfort, including the implementation of prenatal yoga. Prenatal yoga represents a non-pharmacological therapeutic approach within complementary midwifery services [20, 21]. Its holistic nature addresses both physical discomfort and psychological well-being, making it a valuable component of comprehensive antenatal care.

Efforts to reduce pregnancy discomfort and enhance maternal well-being require collaborative engagement among pregnant women, their families, and healthcare professionals. The provision of communication, information, and education (CIE) should be initiated early in pregnancy to ensure that women are equipped with adequate coping strategies when discomfort arises. While CIE initiatives can improve maternal knowledge regarding the importance of prenatal yoga, their effectiveness is strongly influenced by the presence of supportive family environments. Thus, behavioral adherence to prenatal yoga reflects the interaction between cognitive, social, and professional determinants.

This study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design limits the ability to establish causal relationships between knowledge, family support, the role of healthcare professionals, and adherence to prenatal yoga. The associations observed represent relationships at a single point in time. Second, the relatively small sample size ( $n = 24$ ) may limit the generalizability of the findings to broader populations. Third, data were collected using self-reported questionnaires, which may introduce response bias, including social desirability bias. Future studies employing longitudinal designs, larger sample sizes, and mixed-method approaches are recommended to obtain a more comprehensive understanding of behavioral determinants influencing prenatal yoga participation.

## CONCLUSION

This study demonstrates that adequate maternal knowledge, supportive family involvement, and the active role of healthcare professionals are significant determinants of pregnant women's participation in prenatal yoga. These findings highlight the importance of strengthening educational interventions and family engagement within antenatal care services. Midwives and other healthcare providers are therefore expected to optimize their educational role by delivering clear, evidence-based information regarding prenatal yoga, enabling pregnant women to utilize it as a beneficial non-pharmacological approach for managing pregnancy-related discomfort and promoting both maternal health and fetal well-being.

## Ethical consideration, competing interest and source of funding

- The implementation of this study adhered strictly to research ethics principles, including obtaining informed consent from all respondents, ensuring the confidentiality of participant identities, securing authorization from relevant authorities, upholding the principle of justice, and ensuring that the research provided balanced benefits to all individuals involved.
- There is no conflict of interest related to this publication.
- Source of funding is authors.

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