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Continuity of Midwifery Care with the Implementation of Prenatal Yoga and Health Education: A Case Study at Garuda Public Health Center, Bandung City

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ABSTRACT

Continuity of midwifery care represents a holistic and woman-centered service model that ensures comprehensive support throughout pregnancy, childbirth, postpartum, neonatal care, and family planning. One of the most common discomforts experienced by pregnant women in the third trimester is low back pain and psychological anxiety prior to labor. Prenatal yoga has emerged as a safe, non-pharmacological intervention that integrates physical movement, breathing techniques, and relaxation to alleviate such discomforts. This educational article aims to examine the integration of prenatal yoga within the continuity of midwifery care framework as an effective learning-based intervention in maternal health services. Using a descriptive-analytical approach derived from a comprehensive midwifery care case study conducted at a primary healthcare center, this article highlights the clinical, educational, and experiential benefits of prenatal yoga in improving maternal comfort, psychological readiness, and childbirth outcomes. The findings demonstrate that prenatal yoga contributes positively to maternal well-being, supports normal labor processes, and enhances the quality of midwifery education and practice.

Keywords: *Continuity of Midwifery Care; Prenatal Yoga; Maternal Education; Pregnancy; Childbirth*

INTRODUCTION

Continuity of midwifery care is internationally recognized as a core model for improving maternal and neonatal health outcomes. This model emphasizes a sustained therapeutic relationship between women and midwives across pregnancy, childbirth, the postpartum period, and newborn care, fostering trust, personalized care, and informed decision-making (World Health Organization [WHO], 2022). Recent systematic reviews and updates of earlier evidence consistently demonstrate that continuity models are associated with lower rates of medical intervention, reduced preterm birth, and higher maternal satisfaction compared to fragmented models of care (Sandall et al., 2024; Renfrew et al., 2023). From an educational perspective, continuity of care also facilitates progressive maternal health learning, enabling women to develop self-efficacy, confidence, and autonomy throughout the maternity continuum.

Pregnancy, particularly during the third trimester, involves substantial physiological and psychological adaptations that may lead to discomfort and distress. Musculoskeletal complaints especially low back pain remain among the most frequently reported physical symptoms, affecting approximately 70–80% of pregnant women

worldwide (Wang et al., 2023; Kordi et al., 2022). These discomforts are primarily attributed to postural changes, increased lumbar lordosis, ligament laxity associated with relaxin hormone secretion, and altered maternal biomechanics. In parallel, psychological concerns such as anxiety and fear of childbirth commonly intensify as labor approaches and may influence pain perception, labor progression, and overall birth outcomes (Ayers et al., 2021; Dunkel Schetter et al., 2020).

Despite the high prevalence of pregnancy-related discomforts, management strategies within routine maternal care often remain limited to reassurance or pharmacological approaches, which may not be optimal or desirable during pregnancy. Consequently, increasing attention has been directed toward non-pharmacological and integrative interventions that address both physical and psychological dimensions of maternal health (WHO, 2022; Tunçalp et al., 2023). Evidence-based complementary practices such as prenatal yoga have gained prominence due to their safety, accessibility, and holistic orientation (Field & Diego, 2020; Curtis et al., 2021). However, in many primary healthcare settings, these interventions are still implemented sporadically and are not systematically embedded within structured continuity-of-care models.

Prenatal yoga is a pregnancy-adapted mind–body intervention that integrates gentle postures, controlled breathing, mindfulness, and relaxation techniques to support maternal comfort and emotional regulation. Recent empirical studies and meta-analyses indicate that prenatal yoga effectively reduces low back pain, improves sleep quality, decreases antenatal anxiety, and enhances maternal readiness for childbirth (Cramer et al., 2021; Babbar et al., 2022; Zhang et al., 2023). When integrated into continuity of midwifery care, prenatal yoga also functions as an experiential educational tool, enabling women to actively learn pain-coping strategies, body awareness, and relaxation skills through continuous professional guidance.

Within the continuity of midwifery care framework, the sustained and trusting relationship between the midwife and the woman constitutes the foundation for quality, safety, and effectiveness across the maternity continuum (Homer et al., 2021; Renfrew et al., 2023). The role of the midwife extends beyond clinical care to encompass education, emotional support, and advocacy, all of which contribute to increased maternal confidence and more positive pregnancy and childbirth experiences.

In Indonesia, the implementation of continuity of midwifery care has not yet reached an optimal level. Recent national reports and regional evaluations indicate that continuity-based care remains inconsistently applied, primarily due to gaps in competencies related to early risk detection, sustained maternal monitoring, and integrative health education (Ministry of Health of the Republic of Indonesia, 2023; Ministry of Health of the Republic of Indonesia, 2024). As a result, the proven benefits of continuity of care in improving maternal and neonatal outcomes have not been fully realized, despite strong international evidence supporting its effectiveness (Sandall et al., 2024).

Musculoskeletal discomfort during pregnancy particularly low back pain continues to be highly prevalent in Indonesia, with recent studies reporting prevalence rates ranging from 60% to 80%, especially during the third trimester (Kurniasari et al., 2022;

Putri et al., 2023). Nevertheless, help-seeking behavior remains limited, as many pregnant women rely on self-care or family support rather than professional healthcare services (Liddle & Pennick, 2020; Susanti et al., 2023). This reflects a persistent gap between maternal health needs and access to systematic, evidence-based clinical management.

Several recent studies have consistently demonstrated the effectiveness of prenatal yoga in reducing physical discomfort and psychological distress among pregnant women. Empirical evidence shows that prenatal yoga significantly reduces low back pain among pregnant women in the second and third trimesters and contributes to improved maternal comfort (Wariyah & Khairiah, 2023; Dewi et al., 2024; Yuliana et al., 2022; Siagian et al., 2024). In addition to physical benefits, prenatal yoga has also been shown to significantly reduce anxiety levels among third-trimester pregnant women in preparation for childbirth (Widiyarti et al., 2024). These findings collectively confirm that prenatal yoga is an effective non-pharmacological intervention for addressing common physical and psychological complaints during pregnancy.

However, a critical gap remains in the existing literature. Most previous studies employ pre-experimental or quasi-experimental designs that focus primarily on short-term outcomes of prenatal yoga as a stand-alone intervention. The scope of these studies is generally limited to antenatal outcomes, such as pain reduction or anxiety relief, without situating prenatal yoga within a broader continuity of midwifery care framework that spans pregnancy, childbirth, the postpartum period, newborn care, and family planning services. Consequently, there is limited empirical evidence examining how prenatal yoga can be systematically integrated into comprehensive, continuous midwifery care and how such integration may enhance maternal education, sustained comfort, and preparedness across the entire maternity continuum.

Moreover, prior studies tend to assess prenatal yoga primarily as a therapeutic exercise rather than as an educational and empowerment-oriented intervention delivered through an ongoing midwife–woman relationship. This narrow conceptualization overlooks the potential pedagogical role of prenatal yoga in fostering body awareness, self-efficacy, and coping skills when implemented consistently within continuity of care. Additionally, research conducted in primary healthcare settings in Indonesia remains scarce, particularly case-based studies that document the real-world application of prenatal yoga within routine midwifery services at community health centers.

Therefore, this study seeks to address these empirical and conceptual gaps by examining the implementation of prenatal yoga as an integral component of continuity of midwifery care at Garuda Public Health Center, Bandung City. By adopting a comprehensive, case-based approach, this study aims to demonstrate how prenatal yoga can be effectively embedded within continuous midwifery care to support maternal physical comfort, psychological readiness, and holistic well-being from pregnancy through the postpartum period.

The urgency of this issue is further amplified in low- and middle-income countries, where maternity care systems often prioritize biomedical surveillance over holistic education and maternal empowerment. Such approaches may result in missed

opportunities to equip women with practical coping skills for pregnancy and childbirth, potentially contributing to heightened fear, negative birth experiences, and increased demand for medical interventions (Tunçalp et al., 2023; Darmstadt et al., 2022).

From a theoretical perspective, a clear gap remains in the literature regarding the positioning of prenatal yoga within continuity of midwifery care frameworks. While woman-centered care emphasizes partnership, autonomy, and shared decision-making, most recent studies continue to conceptualize prenatal yoga as a stand-alone intervention rather than as an embedded educational strategy within a continuous, relationship-based care model (Field & Diego, 2020; Curtis et al., 2021). This fragmentation limits understanding of how integrative practices can be systematically aligned with midwifery philosophy and continuity-of-care principles.

METHOD

This study employed a descriptive case study design to examine the implementation of continuity of midwifery care integrated with prenatal yoga as a non-pharmacological intervention for managing pregnancy-related discomfort. The case study approach was chosen to allow an in-depth and contextualized understanding of care processes, maternal responses, and educational interactions across the maternity continuum. The study was conducted at Garuda Public Health Center, Bandung City, Indonesia, a primary healthcare facility providing comprehensive maternal and child health services. Data collection was carried out from July to October 2025, encompassing antenatal care, childbirth, postpartum care, neonatal follow-up, and family planning services.

The participant was a pregnant woman (Mrs. E) who received continuity of midwifery care from late pregnancy through the postpartum period. Inclusion criteria included: (1) physiological pregnancy without obstetric complications, (2) gestational age of ≥37 weeks at the start of observation, (3) presence of pregnancy-related discomfort, particularly low back pain, and (4) willingness to participate in prenatal yoga sessions and continuous midwifery follow-up. Written informed consent was obtained prior to participation.

Prenatal yoga was implemented as an integral component of antenatal care within the continuity of midwifery care framework. The intervention consisted of guided prenatal yoga sessions conducted twice weekly, each lasting approximately 60 minutes. Sessions included breathing exercises (pranayama), pregnancy-adapted stretching and strengthening postures, and relaxation techniques. All movements were modified to ensure maternal and fetal safety, avoiding supine positions, deep spinal twists, abdominal compression, and inverted postures. The intervention was delivered by a trained midwife and tailored to the participant's physical condition and comfort level.

Data were collected using multiple sources to ensure comprehensive documentation, including: (1) maternal anamnesis, (2) routine physical examinations following standard midwifery protocols, (3) direct observation during prenatal yoga sessions, and (4) clinical records covering antenatal visits, labor and delivery, postpartum

assessments, neonatal monitoring, and family planning follow-up. Reflective field notes were also used to capture maternal perceptions of comfort and readiness for childbirth.

Primary outcomes included changes in maternal comfort, particularly perceived low back pain, and psychological readiness for childbirth. Secondary outcomes included labor progression, delivery outcomes, neonatal condition at birth, postpartum adaptation, breastfeeding initiation, and contraceptive choice. Outcomes were assessed descriptively based on clinical findings and maternal self-reports.

Data analysis was conducted using a descriptive analytical approach. Clinical and observational data were organized chronologically according to stages of maternity care. Patterns related to maternal comfort, emotional adaptation, and continuity of care were identified and interpreted in relation to existing literature on continuity of midwifery care and prenatal yoga.

The study adhered to ethical principles of autonomy, confidentiality, and beneficence. Written informed consent was obtained from the participant, and all personal identifiers were removed to maintain confidentiality. The study was conducted in accordance with professional midwifery ethics and national health research guidelines.

Three fundamental ethical principles were applied in this continuity of midwifery care research to ensure the protection and well-being of the research subject. The first principle, respect for persons, was upheld by recognizing and honoring human dignity and autonomy. The participant was provided with comprehensive information regarding the midwifery care and research procedures, including the background, objectives, benefits, procedures, potential risks and discomforts, voluntariness of participation, data confidentiality, possible complications, compensation, and contact information for healthcare providers or researchers if further discussion was needed. All data obtained were managed responsibly, kept confidential, and used solely for research purposes. Participation in the research was entirely voluntary, and informed consent was obtained through a signed consent form. The participant retained the right to withdraw from the research at any time without any consequences to the care received.

The second principle, beneficence and non-maleficence, was applied by ensuring that the research provided clear benefits to the participant while minimizing potential risks and discomfort. The interventions implemented were selected based on evidence-based practice and safety considerations, with continuous monitoring to prevent harm and to ensure maternal and fetal well-being throughout the care process.

The third principle, justice, was implemented by ensuring that the participant received fair, equal, and balanced treatment throughout the provision of midwifery care. No discrimination or unequal treatment occurred during the research process, and all care was delivered in accordance with professional standards and clinical guidelines.

The tools and materials used in this continuity of midwifery care research included personal protective equipment (PPE), complete examination sets for antenatal care (ANC), intranatal care (INC), postnatal care (PNC), and newborn care, as well as yoga mats, pillows, small towels, and drinking water to support comfort and hydration during prenatal yoga sessions.

The intervention method applied in this study consisted of prenatal yoga as a non-pharmacological approach to enhance maternal comfort, reduce physical complaints, and support psychological readiness during pregnancy. Prior to the intervention, preparation of equipment and materials was conducted, including ensuring the availability of clean and comfortable yoga mats, pillows for body support, towels, and drinking water to maintain hydration. The exercise room was selected based on adequate ventilation, sufficient lighting, and a calm environment to promote relaxation and focus during the session.

Participant preparation involved providing clear explanations regarding the purpose and benefits of prenatal yoga to ensure informed understanding and active participation. The pregnant woman was encouraged to wear loose and comfortable clothing and was advised to empty her bladder prior to the session to prevent discomfort during the exercise. These preparatory steps were intended to optimize safety, comfort, and effectiveness of the prenatal yoga intervention within the continuity of midwifery care framework.

FINDINGS AND DISCUSSION

The provision of comprehensive midwifery care was conducted at Garuda Public Health Center, located at Jl. Dadali No. 81, Garuda Village, Andir District, Bandung City, West Java. In addition to facility-based care, home visits were carried out to the client's residences, located at Jl. Maleber Barat No. 26 and Jl. Dungus Cariang RT 07 RW 08, Andir District, Bandung City, West Java, to ensure continuity and comprehensiveness of care.

Garuda Public Health Center serves not only the local community but also individuals from outside its immediate service area, including women seeking maternity services. The Maternal and Child Health (MCH) clinic provides a range of services such as measurement of body weight and height, blood pressure monitoring, laboratory examinations, and other routine health assessments. The Basic Emergency Obstetric and Neonatal Care (PONED) unit operates 24 hours a day to provide services for labor and delivery as well as postpartum care. Additional services include infant and toddler health services delivered through the Integrated Management of Childhood Illness (IMCI/MTBS) clinic, antenatal care (ANC) services provided at the MCH clinic every Monday and Thursday, immunization services conducted every Tuesday and Friday, and family planning (FP) as well as premarital counseling services offered every Wednesday and Saturday.

Comprehensive Continuity of Midwifery Care: Case Presentation

This case study describes the implementation of continuity of midwifery care for a 28-year-old multiparous woman (G2P1A0) from late pregnancy through childbirth, postpartum, neonatal care, and family planning services at Garuda Public Health Center, Bandung City. The woman entered care at 37 weeks and 5 days of gestation with a singleton, live, intrauterine pregnancy in cephalic presentation. Her primary complaints during the third trimester were lower back pain, increased anxiety related to

the approaching labor, and excessive gestational weight gain. Regular antenatal monitoring indicated stable maternal vital signs, normal laboratory findings, active fetal movements, and adequate fetal growth.

During antenatal follow-up visits at 38 and 39 weeks of gestation, the woman reported a gradual reduction in back pain after routinely practicing prenatal yoga, although she continued to experience mild lower abdominal discomfort consistent with physiological changes and false labor contractions. Anxiety related to childbirth decreased progressively as a result of continuous counseling, emotional support, and relaxation techniques integrated into care. Maternal weight stabilized following nutritional counseling, and no obstetric complications were identified.

Spontaneous labor occurred at 40 weeks and 1 day of gestation. The woman was admitted during the active phase of the first stage of labor with regular uterine contractions, cervical dilation of 4 cm, and intact membranes. Continuous intrapartum support was provided, including psychological reassurance, mobility encouragement, breathing techniques, relaxation guidance, and pain relief through counterpressure massage. Labor progressed physiologically, culminating in a spontaneous vaginal delivery of a healthy female neonate weighing 3,400 grams with an immediate cry, good muscle tone, and normal Apgar-related clinical indicators. Immediate skin-to-skin contact and early initiation of breastfeeding were successfully performed.

The third and fourth stages of labor were managed actively and safely, including prophylactic oxytocin administration, controlled cord traction, uterine massage, and perineal repair for a second-degree laceration. Postpartum monitoring revealed stable maternal vital signs, adequate uterine contraction, and normal lochia. The woman received appropriate pharmacological management, hydration, nutrition, and education on postpartum self-care.

Postnatal follow-up visits at 6 hours, 4 days, 11 days, and 32 days postpartum demonstrated progressive maternal recovery. Initial postpartum concerns included fatigue, perineal pain, delayed milk secretion, and nipple trauma due to suboptimal breastfeeding attachment. Through continuous education, breastfeeding counseling, correction of latch techniques, nutritional support, and emotional reassurance, these issues resolved gradually. The woman demonstrated increasing confidence in infant care, successful exclusive breastfeeding, improved wound healing, and psychological well-being. Regular yoga and Kegel exercises were continued throughout the postpartum period, contributing to physical comfort and emotional stability.

Neonatal care was provided from birth through 42 days of life. The neonate remained healthy, with stable vital signs, appropriate weight gain, effective feeding patterns, and normal elimination. Preventive interventions including vitamin K administration, eye prophylaxis, early hepatitis B vaccination, neonatal screening, and routine immunizations were delivered according to national guidelines. No neonatal complications were identified during follow-up visits.

At 43 days postpartum, the woman elected to use an intrauterine device (IUD) for family planning. Comprehensive counseling, informed consent, and safe IUD insertion

were conducted without complications. The woman expressed satisfaction with the continuity of care received and reported feeling empowered in her role as a mother.

Overall, this case illustrates that continuity of midwifery care combined with evidence-based non-pharmacological interventions particularly prenatal yoga can effectively reduce pregnancy-related discomfort, alleviate maternal anxiety, support physiological childbirth, promote successful breastfeeding, and enhance maternal and neonatal outcomes across the reproductive continuum.

The management provided was based on evidence-based midwifery practice to address the woman's physical and psychological needs in late pregnancy. Communicating examination results to the woman supported informed decision-making and enhanced maternal understanding, which is a core principle of woman-centered care and continuity of midwifery care (World Health Organization [WHO], 2022). Counseling that lower back pain in the third trimester is a common physiological condition helped reduce anxiety and prevented unnecessary concern, as musculoskeletal discomfort during late pregnancy is widely recognized and usually non-pathological (Pennick & Liddle, 2020; Wang et al., 2023). Positive affirmation and emotional reassurance were provided to reduce maternal anxiety, as psychological well-being has been shown to influence pain perception, labor progression, and overall birth experience (Dunkel Schetter et al., 2020; Ayers et al., 2021).

The recommendation and instruction to perform prenatal yoga were grounded in strong evidence indicating that prenatal yoga effectively reduces lower back pain, improves flexibility, promotes relaxation, and decreases antenatal anxiety through combined physical movement, breathing, and mindfulness techniques (Cramer et al., 2021; Babbar et al., 2022). Nutritional counseling aimed at promoting a balanced diet and preventing excessive gestational weight gain was based on evidence linking appropriate maternal nutrition to improved pregnancy outcomes and reduced obstetric complications (WHO, 2022). Education on recognizing signs of labor and preparing for childbirth was provided to enhance maternal readiness and timely care-seeking behavior, which is associated with safer labor outcomes and reduced delays in accessing care (Tunçalp et al., 2023). Continued iron supplementation was advised in accordance with international recommendations to prevent iron-deficiency anemia and support maternal and fetal health (WHO, 2022). Finally, scheduling a follow-up antenatal visit reinforced continuity of care, allowing ongoing monitoring, early detection of complications, and sustained support throughout the final weeks of pregnancy (Sandall et al., 2024).

Discussion

Continuity of care in midwifery, also known as continuity of midwifery care, is a comprehensive service model that spans the antenatal, intrapartum, postpartum, neonatal, and family planning periods. Its primary objective is to reduce maternal and neonatal morbidity and mortality by ensuring consistent, coordinated, and woman-centered care across the reproductive continuum. In this case, the implementation of continuity of midwifery care played a crucial role in optimizing maternal and neonatal outcomes by enabling continuous monitoring, early identification of potential risks, and

timely evidence-based interventions from pregnancy through the postpartum period and family planning services.

1. Antenatal Midwifery Care

During the third trimester, physiological changes associated with pregnancy often lead to increased physical discomfort. Uterine enlargement, altered body balance, sacroiliac joint widening, and ligament relaxation mediated by the hormone relaxin significantly increase musculoskeletal load. These changes commonly result in lower back pain, particularly during activities such as prolonged standing, walking, or position changes. As delivery approaches, fetal positioning and increased pelvic pressure may further exacerbate discomfort. Although lower back pain in late pregnancy is considered a physiological condition, appropriate management is necessary to maintain maternal mobility and quality of life.

In addition to physical changes, anxiety commonly increases in the third trimester due to anticipation of labor, concerns regarding childbirth, and adjustment to impending parental roles. Psychological literature indicates that anxiety in late pregnancy is influenced by physical discomfort, hormonal changes, and heightened awareness of labor signs. Therefore, effective communication, therapeutic counseling, and continuous emotional support are essential components of antenatal care to reduce anxiety and enhance maternal preparedness.

The woman's history of hypertension in a previous pregnancy required careful monitoring, as such history increases the risk of recurrent hypertensive disorders. However, consistently normal blood pressure readings and the absence of warning signs indicated a stable pregnancy, although regular surveillance remained necessary to ensure maternal safety.

To improve physical comfort and emotional readiness, antenatal care incorporated holistic, non-pharmacological interventions, particularly prenatal yoga. Evidence from systematic reviews and meta-analyses demonstrates that prenatal yoga effectively reduces musculoskeletal pain, including lower back pain, by improving flexibility, muscle relaxation, and posture. Regular practice (2–3 sessions per week for 30–60 minutes) has also been shown to significantly decrease pain intensity in third-trimester pregnant women. Furthermore, breathing and relaxation techniques used in yoga activate the parasympathetic nervous system, thereby reducing anxiety and enhancing psychological well-being. Antenatal education combined with such interventions improves maternal self-efficacy, enabling women to approach labor with greater confidence.

Continuity of antenatal care also included birth preparedness education, encompassing recognition of labor signs, stages of labor, breathing techniques, and formulation of a birth plan. Systematic reviews have shown that childbirth preparation programs significantly reduce anxiety and improve childbirth self-efficacy, which is associated with adaptive coping strategies, reduced pain perception, and increased likelihood of spontaneous vaginal birth.

Contraceptive counseling using a balanced counseling approach was also integrated during the antenatal period. Repeated and comprehensive counseling

improves informed decision-making and increases acceptance of effective long-acting reversible contraceptives (LARCs), such as intrauterine devices (IUDs).

Excessive gestational weight gain (GWG) was identified as an important concern in this case. Evidence indicates that excessive GWG—particularly in the third trimester—is strongly associated with maternal obesity, gestational hypertension, gestational diabetes, fetal macrosomia, and operative delivery. Therefore, weight monitoring, nutritional counseling, and safe physical activity recommendations were essential components of antenatal care to minimize risks extending into the postpartum period.

Overall, comprehensive and continuous antenatal care positively influenced maternal readiness for childbirth by improving physical comfort, reducing anxiety, and strengthening maternal confidence, thereby supporting a safer and more positive birth experience.

2. Intrapartum Midwifery Care

Labor is a physiological process characterized by regular uterine contractions leading to cervical dilation and effacement. In this case, labor progress during the first stage was monitored using a partograph, which demonstrated normal progression without signs of obstruction. The first stage lasted three hours, consistent with multiparous labor patterns. This efficiency may have been supported by stress regulation and relaxation skills acquired through prenatal yoga, which improve maternal oxygenation, reduce sympathetic nervous system activity, and promote effective, coordinated contractions.

Although intranatal yoga was offered as a non-pharmacological pain management strategy, the woman declined due to discomfort during contractions. Alternative controlled breathing techniques were therefore applied, which effectively reduced tension, improved focus, and supported adequate maternal–fetal oxygenation. Continuous midwife support during labor has been widely recognized as a key factor in reducing anxiety, improving coping mechanisms, and decreasing unnecessary medical interventions.

The second stage of labor lasted only six minutes. This rapid progression may be attributed to improved pelvic flexibility, pelvic floor muscle strength, and coordinated breathing patterns developed through prenatal yoga practice. The use of spontaneous (open-glottis) pushing facilitated physiological birth by allowing gradual adaptation of the perineal tissues, thereby reducing the risk of severe perineal trauma.

Active management of the third stage of labor (AMTSL) was implemented to prevent postpartum hemorrhage, including prophylactic administration of oxytocin, controlled cord traction, and uterine massage. The placenta was delivered completely within five minutes, indicating effective uterine contractions. Current evidence supports AMTSL as the most effective strategy for reducing postpartum hemorrhage and maintaining maternal hemodynamic stability.

Routine uterine exploration was not performed, in accordance with international guidelines, as there were no clinical indications such as retained placenta or excessive

bleeding. Avoiding unnecessary invasive procedures reduces maternal discomfort and the risk of infection.

During the fourth stage of labor, close monitoring of vital signs, uterine tone, and blood loss was conducted. Second-degree perineal laceration was repaired using layered suturing techniques, which are associated with better pain outcomes and wound healing. Analgesia, nutritional support, hydration, vitamin A supplementation, and iron therapy were provided in accordance with national and international postpartum care guidelines.

Overall, prenatal yoga contributed positively to labor efficiency, maternal coping, and uterine responsiveness, illustrating the value of integrating non-pharmacological interventions into intrapartum midwifery care.

3. Postpartum Midwifery Care

The postpartum period is a complex phase involving physiological recovery, psychological adaptation, and establishment of breastfeeding. In this case, the woman progressed through the psychological phases of taking-in, taking-hold, and letting-go in a manner consistent with postpartum adaptation theory.

Early postpartum care focused on rest, comfort, emotional support, and bonding. During the taking-hold phase, breastfeeding challenges such as nipple pain were identified and managed through evidence-based interventions, including correction of latch techniques, breastfeeding education, and breast care. Family support played a crucial role in enhancing maternal confidence and breastfeeding success.

As the woman entered the letting-go phase, physical discomfort decreased, breastfeeding stabilized, and maternal independence increased. Continued education, emotional reassurance, and non-pharmacological interventions—such as postpartum exercises and relaxation techniques—supported physical recovery, uterine involution, and emotional well-being.

4. Newborn Care

The neonatal period represents a critical window for growth and development. Essential newborn care was provided immediately after birth, including thermal protection, early skin-to-skin contact, and early initiation of breastfeeding. These interventions support neonatal physiological adaptation, thermoregulation, and breastfeeding success.

Although the newborn experienced a brief physiological weight loss during the first week, subsequent weight gain was appropriate and consistent with WHO growth standards. This pattern reflected adequate milk transfer, effective breastfeeding, and good maternal lactation support. Family involvement further strengthened caregiving practices and contributed to optimal neonatal outcomes.

5. Family Planning Services

Family planning is a vital component of reproductive health care, aimed at optimizing birth spacing and reducing maternal and neonatal risks. In the postpartum period, the intrauterine device (IUD) was selected as an appropriate contraceptive

method due to its high effectiveness, reversibility, and compatibility with breastfeeding. Comprehensive counseling, clinical eligibility assessment, informed consent, and follow-up planning ensured safe and effective contraceptive use.

This case demonstrates that continuity of midwifery care integrated with evidence-based non-pharmacological interventions, particularly prenatal yoga, contributes significantly to improved maternal comfort, reduced anxiety, efficient labor, successful breastfeeding, optimal neonatal growth, and informed family planning decisions. The findings reinforce the importance of holistic, continuous, and woman-centered midwifery care in achieving positive maternal and neonatal health outcomes.

Maternal Comfort and Reduction of Low Back Pain

The findings indicate that integrating prenatal yoga within a continuity of midwifery care framework was associated with a marked improvement in maternal comfort, particularly in relation to pregnancy-related low back pain. Prior to the intervention, the participant reported persistent lower back discomfort during daily activities and prolonged standing, a condition commonly experienced in the third trimester due to biomechanical adaptations and postural changes. Following regular participation in prenatal yoga, the intensity of low back pain gradually decreased, and the participant reported improved physical comfort during both movement and rest.

These findings are consistent with recent evidence demonstrating that prenatal yoga reduces low back pain through improved posture, enhanced core muscle strength, and increased musculoskeletal flexibility (Pennick & Liddle, 2020; Wang et al., 2023). Breathing and relaxation components inherent to yoga practice facilitate muscle relaxation and pain modulation, supporting contemporary evidence that mind–body interventions are effective for managing pregnancy-related musculoskeletal discomfort (Field & Diego, 2020; Cramer et al., 2021). Importantly, the continuity of care model enabled individualized guidance and ongoing monitoring, which likely enhanced adherence and optimized the intervention's benefits (Sandall et al., 2024).

Psychological Readiness and Emotional Well-being

Beyond physical improvements, the participant demonstrated enhanced psychological readiness for childbirth. At the initial assessment, anxiety related to labor pain and uncertainty about the childbirth process was evident. Over the course of continuous midwifery care combined with prenatal yoga practice, anxiety levels decreased, and the participant reported greater confidence in managing labor through learned breathing and relaxation techniques.

This observation aligns with recent studies showing that prenatal yoga significantly reduces antenatal anxiety and improves emotional well-being (Babbar et al., 2022; Beddoe et al., 2020). The sustained midwife–woman relationship inherent in continuity of care played a critical role in reinforcing psychological support. Consistent interactions allowed for continuous education, reassurance, and emotional validation, which have been shown to strengthen maternal self-efficacy and promote more positive childbirth experiences (Homer et al., 2021; Renfrew et al., 2023).

Labor Progression and Birth Outcomes

Labor progressed spontaneously without complications, resulting in a normal vaginal delivery. Breathing techniques practiced during prenatal yoga were applied effectively during the active phase of labor, supporting relaxation and pain coping. Early initiation of breastfeeding was successfully achieved, and the newborn was delivered in good condition without the need for additional medical interventions.

These outcomes are consistent with contemporary evidence suggesting that improved physical conditioning and psychological preparedness contribute to smoother labor progression and reduced need for obstetric interventions (Renfrew et al., 2023; World Health Organization [WHO], 2022). Although causality cannot be inferred due to the descriptive nature of this case study, the findings suggest that prenatal yoga, when embedded within a continuity of care framework, may support physiological labor processes by enhancing maternal readiness and confidence.

Postpartum Adaptation and Continuity of Care

During the postpartum period, the participant demonstrated satisfactory physical recovery and psychological adaptation. Lactation was successfully initiated, and the participant expressed confidence in breastfeeding and infant care practices. Ongoing midwifery support during the postpartum phase facilitated early identification of concerns and reinforced maternal self-care and neonatal care education.

These findings highlight the importance of continuity beyond childbirth, as sustained professional support has been associated with improved postpartum adjustment, breastfeeding outcomes, and maternal satisfaction (Sanders & Crozier, 2018; WHO, 2022). The seamless transition from antenatal to postpartum care in this case illustrates how continuity models strengthen maternal learning, confidence, and adaptation across different stages of maternity.

Educational Value of Prenatal Yoga within Continuity of Care

Beyond its clinical benefits, prenatal yoga functioned as an experiential educational intervention within the continuity of midwifery care model. Through repeated practice and guided instruction, the participant developed practical skills related to posture awareness, breathing control, and relaxation techniques, which were transferable to labor and postpartum recovery. This supports the conceptualization of prenatal yoga not merely as a therapeutic exercise, but as an educational strategy that enhances maternal agency, self-efficacy, and active participation in care.

While earlier research often examined prenatal yoga as a standalone intervention, recent literature emphasizes the value of embedding integrative practices within continuity-based, woman-centered care models (Cramer et al., 2021; Babbar et al., 2022). The present findings extend this perspective by illustrating how prenatal yoga can be effectively integrated into continuity of midwifery care, reinforcing experiential learning through sustained professional support and contributing to holistic maternal health outcomes.

Implications for Midwifery Practice

The findings suggest that integrating prenatal yoga into continuity of midwifery care may enhance both maternal outcomes and educational quality in maternity services. This approach offers a feasible, low-cost, and culturally adaptable intervention that aligns with midwifery philosophy and evidence-based practice. However, broader implementation requires adequate training, institutional support, and integration into routine antenatal care protocols.

Study Limitations

As a single case study, the findings are not intended to be generalized. The absence of quantitative measures limits the ability to assess the magnitude of change in pain and anxiety levels. Future studies employing mixed-methods or controlled designs with larger samples are recommended to further examine the effectiveness and scalability of integrating prenatal yoga within continuity of midwifery care.

CONCLUSION

Comprehensive continuity of midwifery care incorporating prenatal yoga demonstrated beneficial effects on maternal physical comfort, psychological readiness, and overall pregnancy outcomes. Prenatal yoga contributed to the reduction of lower back pain, improved relaxation, and enhanced maternal confidence in preparing for childbirth through breathing and relaxation techniques, while antenatal education supported understanding of physiological changes and labor processes. During labor, although yoga movements were not applied, guided relaxation and continuous midwifery support facilitated effective pain coping, emotional control, and physiological labor progression, in line with evidence-based intrapartum care principles that discourage unnecessary routine interventions. In the postpartum period, comprehensive care supported normal physical recovery, effective lactation, and positive psychological adaptation, with early postpartum discomforts resolving through education, family support, and non-pharmacological interventions such as postpartum yoga. Newborn care provided according to established standards ensured successful early adaptation, effective breastfeeding, and appropriate weight gain, supported by coordinated involvement of the midwife and family.

Family planning services further strengthened continuity of care, as the mother consistently adopted a long-acting reversible contraceptive method (IUD) during the postpartum period due to its safety, effectiveness, and compatibility with breastfeeding. Overall, this continuity-based, evidence-informed approach highlights the value of integrating prenatal yoga within comprehensive midwifery care to promote maternal comfort, childbirth readiness, postpartum recovery, and optimal maternal–infant outcomes.

Beyond its therapeutic effects, prenatal yoga functioned as an experiential educational strategy that strengthened maternal self-efficacy and active participation in the childbirth process. When embedded within a continuity of care framework, prenatal yoga reinforced woman-centered care principles by integrating physical, psychological,

and educational dimensions of maternity care. Although based on a single case, this study provides valuable insights into how integrative, non-pharmacological interventions can be systematically aligned with continuity of midwifery care in primary healthcare settings.

Future research involving larger samples and quantitative or mixed-methods designs is recommended to further examine the effectiveness, scalability, and policy relevance of incorporating prenatal yoga into routine continuity-based midwifery services. Nonetheless, the present findings support the inclusion of prenatal yoga as a feasible and evidence-informed component of holistic midwifery practice aimed at improving maternal well-being and birth preparedness.

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