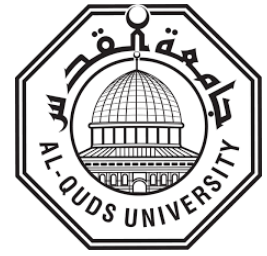


**Deanship of Graduate Studies
Al-Quds University**



**Midwives' Awareness of alternative Birth Positions and
the Factors Associated with their Use in the Southern
West Bank**

Balqees Ali Mohammed Hamdan

M.Sc. Thesis

Jerusalem – Palestine

1447 / 2025

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Prepared by: Balqees Ali Mohammed Hamdan

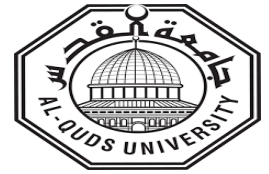
B.Sc. Bethlehem

Supervisor: Dr. Maha Nahal

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requirements for the Master's degree in Maternal Child
Health Nursing**

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Al-Quds University
Deanship of Graduate Studies
Maternal and Child Health Program



Thesis approval

Midwives' Awareness of alternative Birth Positions and the Factors Associated with their Use in the Southern West Bank

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Jerusalem-Palestine

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إهداء / Dedication

الحمد لله الذي بفضلله وهبني القوة والصبر لأكمل رحلة العلم، وبنوره أرشد خطاي نحو تحقيق هذا الحلم، فلك الحمد في كل خطوة وفي كل لحظة من هذه المسيرة. لم تكن الرحلة سهلة، فقد واجهت الكثير من العوائق والصعوبات حتى أتممتها بهذا الإنجاز، لم تكن رحلة فردية أبداً بل كان هناك العديد ممن ساهموا في تذليل تلك الصعوبات والعقبات، ممن قدموا لي العون يوم حاجتي، وهم الذين أهدي إنجازي هذا لهم

أمي الحبيبة -أم ضياء- التي كانت لي السند والملاذ في غياب أبي، أمي التي سهرت معي في كل إختبار في كل ليلة كنت امضيها في سبيل الوصول كانت امي الحبيبة على رأسي لا تغمض لها عين واحتضنتني بكلماتها الدافئة وابتسامتها الصادقة في أصعب الأوقات. كانت صبراً يعانق قلبي، وتشجيعاً يرفع من عزيمتي، وسأظل ممتنة لكل لحظة صبرتها معي، ولكل دمعة أسقطتها لأجل دعمي ومساندتي، لولاها لما وصلنا هنا، أمي هي نجاح الرحلة وكفاح القلب وإصرار التحدي، كم بدلت التعب بالراحة والفتور بالهمة، كانت معي حتى نلت ما أريد.

أبي الغالي الذي زرع فيا حب العلم منذ الصغر، الذي علمني الإصرار والتحدي، أبي الذي غيبه الإحتلال عني لقد كنت ولازلت مثلي الأعلى، أبي الذي لا أظنه يعلم أن ابنته بدأت الماجستير أو أنها تستعد لمناقشة رسالتها كأخر خطوة لكني أعلم أن الفرح سيتسلل إلى قلبه الكبير فور معرفته، فرج الله كربته.

أختي الحبيبة التي كانت يدي اليمنى قبل أن احتاجها التي كانت نعم السند والعون، التي لها فضلٌ كبير في وصولي.

أخي ضياء أبي الثاني سندي الذي يدعمني بحكمته وحنانه، ويقف إلى جانبي في كل موقف صعب، فقد كان نوراً في أيامي المظلمة وملجأً روحي وطمأنينها.

أخوتي المثنى ومحمد مصدر القوة والحب، وملجأً الروح في لحظات التعب والإرهاق وأيادي الحنان التي مسّت قلبي.

زوجي الحبيب ذراع الدعم التي حملتني عندما ضعفت، وصوت الطمأنينة الذي أنقذني من لحظات الشك والتعب. كان ظلي الوفي في أيام الإرهاق، ورفيقي في كل طريق نحو الحلم. وجوده إلى جانبي كان النعمة التي جعلت كل شيء ممكناً، فله من القلب شكرٌ بحجم هذا الإنجاز.

وأخيراً، أشكر نفسي، على كل ما قدّمته من صبرٍ وسهرٍ وتعب، على كل لحظة خذلان
تجاوزتها، وكل عقبة واجهتها بعزمٍ لا ينكسر. اليوم أجنبي ثمرة تعب السنين، وأقول بفخرٍ
وامتنان: كنتِ قوية يا أنا، فهنئاً لنا هذا الوصول.

Declaration

I certify that this thesis, which is submitted for the degree of master, is the result of my research, except where otherwise acknowledged, and that this study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signature.



Name: Balqees Ali Mohammed Hamdan

Date: 20/12/2025

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I also want to express my gratitude to the midwives who participated in the study and provided me with valuable notes and comments to enhance the data collection process.

Abstract

Background: This study was conducted to assess midwives' awareness and practice regarding alternative birth positioning during labor in hospitals located in the Southern West Bank. The study was carried out during the academic year 2024–2025 and targeted practicing midwives working in governmental and private hospitals in the southern region. The research addressed a significant gap in the application of alternative maternal positions during labor, despite the growing global evidence supporting their benefits for maternal comfort, labor progress, and neonatal outcomes.

Purpose: The purpose of this study was to evaluate the level of awareness among midwives, examine their actual practices, and identify the clinical, demographic, and contextual factors that influence the use of birth positions during labor.

Methods: A quantitative cross-sectional study design was adopted to ensure objective measurement of awareness and practice levels. Data were collected using a structured questionnaire originally developed by Garbel and Lyra (2021), for which official permission to use the tool was obtained. Data were analyzed using descriptive and inferential statistics to explore associations between awareness, practice, and relevant influencing factors.

Results: The findings indicated that over half of the participants (53.3%) were not sufficiently aware of alternative birthing positions, while 46.7% displayed satisfactory knowledge. The study identified that factors related to women, partner involvement, access to technology, and hospital policies significantly hindered the use of alternative positions during labor. Furthermore, the levels of awareness and practice were linked to demographic characteristics, including years of experience and educational attainment.

Conclusion: these findings underscore the need for continuous professional development programs and practical training to enhance midwives' knowledge and competence in applying evidence-based birthing positions. Strengthening awareness and addressing the influencing factors can contribute to improved maternal satisfaction, safer labor processes, and better neonatal outcomes. The study emphasizes the importance of integrating updated labor positioning practices into hospital protocols and midwifery education to ensure high-quality maternal care.

Keywords: Midwives, Awareness, Birthing Positions, Labor, Associated Factors, Maternal Care, West Bank.

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List of abbreviation

Abbreviation	
FHR	Fetal Heart Rate
ICM	International Confederation of Midwives
MOH	Ministry of Health
NGO	Non-Governmental Organization
WHO	World Health Organization
EBSCO	Elton B. Stephens Company (Database)
PMC	PubMed Central
CTG	Cardiotocography
SPSS	Statistical Package for the Social Sciences
SD	Standard Deviation
Df	Degrees of Freedom
p-value	Probability Value (Significance Level)
ANOVA	Analysis of Variance
M	Mean
US	Ultrasound

Chapter One

Introduction

1.1 Background:

In recent years, a growing global interest in maternal health has been driven by increased awareness of its critical role in improving overall health outcomes for children, families, and communities. Today, maternal health is recognized as the cornerstone of sustainable development (Firoz et al., 2013). To achieve the healthiest outcomes for both mother and child, pregnant women should prioritize prenatal care, access skilled birth attendants, and receive postnatal support. These measures help them handle the challenges of pregnancy, ensure safe childbirth, and significantly reduce the risk of complications for the mother and the baby (Huang et al., 2019).

Despite the uniqueness of every pregnancy and childbirth, most women view these experiences as natural physiological processes and joyful life events. Therefore, emphasis was given to the qualification and competency of obstetricians and midwives in supporting the normal physiology of childbirth (Butler et al., 2018). The World Health Organization (WHO) has prioritized expanding the efforts of all birth attendants, including midwives, to ensure that all women have access to respectful and high-quality maternity care (WHO, 2018). Furthermore, the International Confederation of Midwives (ICM) emphasizes maternal health promotion in its scope of practice, highlighting the importance of normal childbirth as a fundamental aspect of maintaining maternal health. Among the key factors in achieving this is supporting women in adopting birthing positions they find most comfortable, for enhancing the birthing process and their well-being (Satone & Tayade, 2023).

Birthing positions refer to the various postures a pregnant woman can assume during delivery, which are mainly divided into two types; the vertical positions include (sitting, squatting, kneeling, and standing), and the horizontal positions include (supine, lithotomy, and lateral) positions (Desseauve et al., 2017).

Despite the common use of horizontal positions, it was reported that vertical positions were more effective in shortening the duration of the second stage of labor than the horizontal position (Hemmerich et al., 2019). The vertical position will help in the descent process of the fetus, aided by gravity, and increase the pelvic dimensions, as well as reducing the chance of labor dystocia (Desseauve et al., 2017). Despite the common use of horizontal positions, it was reported that vertical positions were more effective in shortening the duration of the second stage of labor than the horizontal position (Hemmerich et al., 2019). The vertical position will help in the descent process of the fetus, aided by gravity, and increase the pelvic dimensions, as well as reducing the chance of labor dystocia (Desseauve et al., 2017).

The WHO recommends that women at low risk adopt upright positions during labor and increase their mobility to enhance comfort and promote labor progress (WHO, 2018). It was emphasized that no birthing position should be mandated or prohibited, as allowing women to select a comfortable position can facilitate the birth process (Huang et al., 2019). This choice can improve perineal outcomes (Diorgu et al., 2016), reduce the rate of assisted deliveries, optimize fetal heart rate (FHR) patterns, and shorten the duration of the second stage of labor (Deliktas & Kukulcu, 2018). However, in Palestine, midwives still routinely use the lithotomy position for all women during childbirth (Wick, 2004).

Many factors can influence the routine use of birthing positions, potentially limiting women's choices among alternative options. Midwives frequently assert their confidence in employing the lithotomy position, as they perceive it to be more manageable (Musie et al., 2019). Various demographic, clinical, and contextual elements can contribute to the preference for specific birthing positions in midwifery practices. These factors encompass personal characteristics such as years of experience, education, and professional training, as well as workplace-related aspects like institutional guidelines and the availability of resources to support different birth positions. Research also shows that midwives' views on certain birth positions are often influenced by cultural beliefs, clinical guidelines, and the training they get over the course of their careers (Musie et al., 2019).

In addition, obstetric indications related to mother condition may arise and make a change of position necessary or impossible, also midwives emphasize a wide array of obstetric indications, some of which are supported by research evidence (De Jonge et al., 2008). Given the essential role of midwives in enhancing alternative birth positioning, it is crucial to evaluate midwives' awareness and the factors influencing birth positioning during labor .

This study seeks to identify areas for improvement, raise awareness about the benefits of diverse birthing positions, and ultimately enhance the quality of care provided to women during childbirth. Understanding midwives' knowledge and the barriers they face will help promote evidence-based practices that support maternal health and improve labor outcomes.

1.2 Problem Statement:

In general, most midwives believe that the supine position benefits both the fetus and the mother by helping her feel relaxed and allowing her to push the baby out more easily, as it conserves her strength (Mselle & Eustace, 2020). In Palestine, however, it has been reported that most women give birth in the lithotomy position (Wick, 2004), which goes against WHO recommendations (WHO, 2018).

Alternative birth positions are crucial for enhancing maternal and neonatal health. These positions can shorten the stages of labor, reduce the risk of bleeding and perineal injury after birth, and provide mothers with greater comfort and independence. By allowing women more control over the birthing process, these positions can lead to a more positive and efficient experience (Musie et al., 2019).

Embedded practices such as, birthing in lithotomy position and routine episiotomies are commonly used in Palestine as (96%) women were reported to give birth in lithotomy position, either with or without stirrups. In ten hospitals (40%) the women were reported to give birth in the lithotomy position with their legs in the stirrups. Only one hospital reported that the semi-recumbent position was the usual position for delivery. Six hospitals reported that sometimes the semi-recumbent position is used (Wick, 2004).

Each mother is a unique case that requires special care and a birthing plan tailored to her individual situation; therefore, midwives should treat each case individually and choose the position that best suits her. However, there seems to be a disconnect between theory and practice. Rather than using alternative birth positions during labor, midwives often resort to the lithotomy position as the standard for birthing, regardless of women's specific needs. Additionally, there is a lack of studies in Palestine focusing on the use of alternative birth positions among midwives. In this context, we have yet to assess midwives' awareness and the factors influencing their choices, despite the critical role that positioning plays during labor.

The main question of this study is: what is the level of midwives' awareness, and what factors are associated with the use of various birth positions during labor?

1.3 Significance of the Study

This study aims to contribute to the growing body of research on alternative birth positions by addressing a significant research gap in hospitals in the Southern West Bank. Specifically, it seeks to assess midwives' awareness and the factors associated with alternative birth positioning, thereby enhancing their understanding and application of this technique. The results could influence healthcare policies and practices, empowering midwives to make

informed decisions. Additionally, by establishing a database on this topic, this research is expected to enrich the global knowledge base on alternative birth positions and inform future studies.

Assessing midwives' knowledge regarding birthing positions is essential for determining their ability to guide women through evidence-based practices. Upright and alternative positions can alleviate labor pain, enhance maternal comfort, facilitate fetal descent, and reduce the need for medical interventions. Therefore, understanding midwives' knowledge in this area is crucial for improving both maternal and neonatal outcomes. Promoting childbirth preferences, including the selection of birthing positions, is a fundamental aspect of women's rights during childbirth. International guidelines, such as those from the World Health Organization, emphasize that every woman deserves dignity, autonomy, informed choice, and respectful maternity care. This includes the right to choose any safe and comfortable position during labor and delivery, except in cases where a medical condition requires otherwise (WHO,2018).

1.4 Justification of the study

Midwives continually strive at every moment to provide the best possible care to achieve the best results for the health of the mother and her child, and the impact of a study like this would affect the performance of each midwife, as the link between birth positions and some childbirth outcomes, underlining their role in: promoting the physiological progression of labor, facilitating the correct fetal positioning, promoting fetal well-being, making pain more bearable and increasing maternal satisfaction, reducing perineal trauma, influencing blood loss, reducing the use of operative vaginal birth, supporting partner involvement, and strengthening the empathic relationship between the couple and the midwife (Garbelli & Lira, 2021)This indicates the importance of this study in providing percentages and results that may lead to positive change, even that the studies focused on the alternative birth positioning during childbirth are scarce. And despite the importance of childbirth in Palestinian society, Midwives' awareness and associated factors regarding alternative birth positioning never been assessed.

1.5 The Overall Aim of the Research

The main aim of this study is to assess the midwives' awareness and associated factors regarding the utilization of alternative birth positioning during labor in Southern Region/West-bank

1.6 Research Objectives

The purpose of this study was to:

1. To assess the level of the midwife's awareness regarding alternative birth positions during labor in Southern region of West Bank.
2. To assess the factors associated with the application of alternative birthing positions among midwives.
3. To assess the degree of association of specific factors (woman-related, partner involvement, and technology/monitoring) on the use of different birthing positions during childbirth.
4. To assess the differences between demographic variables of midwives in terms of their awareness of alternative birthing positions.

1.7 Research Questions

The main research question: What is the level of midwives' awareness and the associated factors affecting the utilization of alternative birth positioning during labor in hospitals in the Southern region of the West Bank?

Sub-Question:

1. What is the level of awareness of midwives regarding alternative birth positions during labor in the Southern region of the West Bank?
2. What factors are associated with the application of alternative birth positions among midwives?
3. What is the degree of association between specific factors (woman-related, partner involvement, and technology/monitoring) and the use of different birthing positions during childbirth?
4. Are there significant differences between the demographic variables of midwives in terms of their awareness of alternative birth positions?

1.8 Context of study:

1.8.1 State of Palestine:

The State of Palestine is one of the countries of the Levant and lies on the eastern shore of the Mediterranean Sea. Located in Asia, it is bordered to the north by Syria and Lebanon, to the east by Jordan, to the west by the Mediterranean Sea and the Sinai Desert, and to the south by the Red Sea. It boasts an Islamic heritage, with Jerusalem as its capital. Throughout history, Palestine has endured significant hardships. Following the end of Ottoman rule, it was subjected to the British Mandate, which eventually led to the current situation: the Israeli

occupation that began in 1948 and expanded in 1967 to include the West Bank and Gaza Strip.

It's approximately 27,000 square kilometers in total. The West Bank and Gaza Strip are home to approximately 5,483,450 individuals and cover approximately 6,020 square kilometers, resulting in a population density of 847 persons per square kilometer. The Palestinian National Authority governed the West Bank through 11 governorates: Jenin, Tubas, Tulkarm, Nablus, Qalqilya, Salfit, Ramallah and Al-Bireh, Jericho, Jerusalem, Bethlehem, and Hebron (PCBS, 2023).

1.8.2 Health Care System in Palestine

The Palestinian health system consists of four main sectors: the government health sector (the Palestinian Ministry of Health (MOH) and Military Medical Services), the United Nations relief and works agency, non-governmental organizations (NGO), and the private sector. These different sectors are involved in providing health care services to citizens in all levels: primary health care, secondary and tertiary health care. The Palestinian MOH pays special and great attention in maintaining the continuity of the Palestinian health system and providing comprehensive health services of high quality to all citizens. For the total number of reported live births in 2023 in the West Bank was 82,510 live births (MOH, 2023).

1.9 Definition of terms

1. Midwives:

A midwife is a person who has successfully completed a midwifery education program that is based on the ICM essential competencies for basic midwifery practice and the framework of the ICM global standards for midwifery education and is recognized in the country where it is located; who has acquired the requisite qualifications to be registered and/or legally licensed to practice midwifery and use the title 'midwife'; and who demonstrates competency in the practice of midwifery" (Butler et al., 2018).

2. Awareness:

It can be understood as the information and data that have been learned and assumed within a cognitive system, forming part of an individual's intellectual legacy, and can include structured and organized information, experimental familiarity, and a comprehensive understanding of a subject, both in **theory** and **practice** (Bolisani et al., 2018)

3. Associated Factor:

Characteristics or conditions that exhibit a measurable association with specific health behaviors or outcomes, often serving as a basis for interventions (Jacobsen, 2020).

4. Birth Positioning

A key non-invasive strategy to improve labor outcomes, enhance maternal comfort, and support the natural progression of childbirth, particularly through the use of upright and mobile positions that promote optimal fetal positioning and reduce labor interventions (Kemp et al., 2021).

5. Labor

a natural physiological process encompassing a series of rhythmic and coordinated contractions, leading to cervical effacement and dilation, descent of the fetus, and eventual delivery of the baby and placenta (WHO, 2018).

6. Southern West Bank

The Southern West Bank refers to the southern region of the West Bank, primarily encompassing the governorates of Bethlehem and Hebron. (Central Intelligence Agency, 2022)

Southern West Bank hospitals

In the context of this research, Southern West Bank Hospitals refers to the healthcare institutions located in the southern region of the West Bank that provide childbirth and maternity care services, these hospitals play a crucial role in providing healthcare for pregnant and postpartum women in this region.

Chapter Two

Literature review

2.1 Literature review

2.1.1 Introduction:

This chapter summarizes the literature by reviewing articles and studies related to midwives' awareness and the factors influencing alternative birth positioning during labor in the southern West Bank. An electronic literature search was performed to identify relevant resources on this topic, utilizing multiple databases such as PubMed Central (PMC), EBSCO, and Google Scholar.

To our knowledge, there is presently no literature specifically examining midwives' awareness of and factors influencing alternative birth positioning during labor in the southern West Bank. However, we examined several studies conducted in regions beyond our geographical scope.

Peer-reviewed journals published the studies included in this review, some of which employed quantitative methods. They took place in Italy, Nigeria, and India, and the number of people who took part ranged from 52 to 115. Additionally, we reviewed five qualitative articles with sample sizes between 17 and 41, conducted in South Africa, Tanzania, China, the Netherlands, and the United States. All studies took place in hospital settings, except for Garbelli and Lira (2021), which was conducted in a birth center in Italy.

Main Point of this literature review well presented in these sections.

2.1.2 Alternative Birth Positions:

Historically, a variety of birth positions have been used in cultures (Gupta et al., 2017). Alternative birth positioning defined as various physical postures a pregnant mother may assume at the time of delivery (Yadav et al., 2021). Which may include horizontal positions; dorsal supine position, side-lying position, lateral (Sims) position, lithotomy position, or vertical positions; squatting position, reclining birth position, birthing stool position, birthing

bar position and kneeling position (Satone & Tayade, 2023). These vertical positions are recommended by world health organization at low-risk women (WHO, 2018).

77.2% of total registered pregnant women considered low risk cases in Palestine (Palestinian MOH, 2023), since there were no statistics on the number of live births for the same year due to the difficult political circumstances in the region, referring to the statistics of the previous year, it was 139,960 reported as live birth in Palestine (Palestinian MOH, 2022). Nearly 108,049 of the deliveries per year considered low risk and various birth positions can be used through it.

Upon the 18th-century first work has begun on birthing positions obstetrician describe François Mauriceau position as the most widely used in maternity units, this position, still called the semi recumbent or the French birthing position was developed into the recumbent or lithotomy position (Ducloy-Bouthors et al., 2006). However, with the advent of modern obstetrics, supine positions and lithotomy have become more common, mostly for the convenience of health care providers rather than the benefit of the mother (Gupta et al., 2017).

The most common birthing positions as (figure 2.1).

1. Lithotomy position: lying on the back with knees bent and positioned above the hips and spread apart with the stirrups (Satone & Tayade, 2023).
2. Dorsal supine position: lying flat on the back with head and shoulders slightly elevated. (Satone & Tayade, 2023).
3. SIMs position: lying on the left side with the right hip and knee bent and the left hip and lower extremities straight (Satone & Tayade, 2023).
4. Squatting position: knees and hips bent with the weight of the body on the foot (Satone & Tayade, 2023).
5. kneeling position: the woman kneels, leans forward, and balances herself on her fist or the palms of her hands (Satone & Tayade, 2023).
6. Side-lying position: lying on the side either with legs lifted or supported (Satone & Tayade, 2023).
7. Birthing stool position: sitting up straight on a chair or stool or at an angle of 45 degree (Satone & Tayade, 2023).
8. Birthing bar position: squatting bars that arch over the bed near the foot for support (Satone & Tayade, 2023).

2.1.3 The importance and efficacy of various positioning practices during labor.

Birth positions and mobility play an important role in birth process as they relate to some factors such as the pelvis type, the fetal position and attitude, uterine contractions, the gravity force, and woman's preferences and emotional feelings (Simkin et al., 2017).

1. The role of alternative birth positioning in the duration of the second stage of labor: research has indicated that compared to a supine position, the duration of the second stage of labor is shorter in an upright position (squatting, sitting, on a birth stool, in a chair, or kneeling) (Hemmerich et al., 2019).
2. The influence of alternative birth positioning on fetal descent and pelvic dimensions: in an upright position the descent of the fetus is aided by gravity, and the dimensions of the pelvic outlet are also increased in an upright position reducing the chance of labor dystocia (Hemmerich et al., 2019).
This was consistent with the results of another study conducted by Garbelli & Lira in 2021 aimed to investigate the knowledge and skills regarding birth positions in labor among midwives and to consider the need of training mentioned that the role of squatting position of taking advantage of the gravity force, enlarging the diameters of the pelvic outlet (Garbelli & Lira, 2021).
3. Role in pain management: upright position relieving lower back pain, would reduce the feeling of a premature urge to push before full dilatation (Garbelli & Lira, 2021). However, the lateral position has been found to be effective in relieving maternal exhaustion due to prolonged labor (Mselle & Eustace, 2020).
4. Influence in perineal trauma: upright position could prevent perineal trauma (Garbelli & Lira, 2021). furthermore, the lateral position has been found also to increase the rate of perineal intactness (Mselle & Eustace, 2020).
5. Effect on malposition and asynclitism: asymmetrical positions assist in facilitating internal rotation, and the correction of malposition or asynclitism (Garbelli & Lira, 2021). But what we cannot overlook the side-lying position, followed by the semi prone, on the same side as the fetal back, as a possible position for the correction of occiput-posterior fetal malposition (Garbelli & Lira, 2021).
Another qualitative descriptive study performed by Mselle & Eustace in 2020 aimed to explore the perceptions and experiences of mothers and nurse-midwives regarding the use of position during labour and delivery, supports these interesting findings, the lateral and the upright positions have been effective in correcting mal-positioning of the fetus. (Mselle & Eustace, 2020).

2.1.4 Midwives' awareness regarding proper positioning techniques during labor.

A survey investigates the knowledge and skills regarding birth positions in labor among midwives and to consider the need of training, found that two-thirds of the sample reported that a Bachelor's degree and post-graduate education did not provide a sufficient level of knowledge and skills on the use of birth positions in labor. Although totality of the midwives showing good knowledge of the importance of birth positions, deemed appropriate to deepen

the topic with a specific training, 73% of the sample having a good or excellent knowledge of the topic; 73.1% presumed to have good or excellent skills of the topic; 76.5% affirmed that they use birth positions in labor in a good or excellent way (Garbelli & Lira, 2021).

While another study done by Yadav and his college in 2021 aims at assessing the knowledge regarding alternative birth positions among nursing officers claims that approximately 77% of study participants knew about alternate birth positions a woman can assume for childbirth. The most known birth position apart from lithotomy was squatting (26/52) followed by sitting (19/52). The least known birth position among nursing officer was standing (7/52) (Yadav et al., 2021).

In the other hand an exploratory study, in Nigeria in 2016, aimed to identify prevalence rates of different birthing position and episiotomy and to explore the differences in perspectives of mothers and midwives about birthing positions and perineal trauma found that 41% only agreed that the lithotomy position was not helpful during labour and, they clearly demonstrates that more midwives appear to have a preference for the lithotomy position, more over different positions were rarely used and the lithotomy position was routinely adopted. Acceptance of the lithotomy position was evident from both the mothers and midwives alike (Diorgu et al., 2016).

Garbelli and Lira added that the sample of midwives identified the following as the main objectives pursued with the proposal of positions and mobility: facilitating fetal progression through the birth canal, promoting fetal positioning, containing maternal pain, reducing the risk of abnormal FHR and improve fetal oxygenation, strengthen the empathic relationship between the couple and the midwife and can make uterine contractions more regular and effective (Garbelli & Lira, 2021).

A qualitative study conducted to investigate 20 midwives working in labour ward in South Africa by survey composed of two parts: Midwives' perceptions of alternative birth positions and barriers to utilization of alternative birthing positions found that Midwives' perceptions of alternative birth positions refer to midwives' personal convenience, comfortability and women's choice of birth position. In general, most midwives prefer to use the lithotomy position because they believe it is easy to manage and is what they are confident using (Musie et al., 2019).

This was in line with a cross-sectional observational study conducted in India showed that the majority of the nurses (92.3%) were aware of the lithotomy (lying on the back) position and 40 (76.9%) were aware of positions other than lithotomy, that a pregnant woman can assume for childbirth. Doctors were the most common source of information about alternate positions; the media (print and electronic) being the second. Twenty-six nurses responded that they had received enquiries from patients regarding alternate birth positions during their routine antenatal check-up. Almost all the participants (96.1%) were enthusiastic about gaining detailed information regarding alternate birthing positions (Yadav et al., 2021). However, midwives emphasized that women should be prepared for the fact that the process of birth is largely unpredictable (De Jonge et al., 2008).

Six focus groups with four to six midwives in each group and a total of 31 female participants in most groups, investigated to explore the views of midwives on women's positions during the second stage of labour. conducted in 2008 provided a basic knowledge about the topic which we cannot overcome it despite the time, mentioned that they preferred to perform an episiotomy or vaginal examination in supine position and, as a result, women often proceeded to have a supine birth. In five of the groups, some of the midwives said that they let women lie on their backs for the actual birth, even if they had been pushing in other positions, to have a better view of the perineum or because conducting the delivery in that position was easier (De Jonge et al., 2008).

Both mother and midwife believed that other birthing positions, such as lateral and squatting positions, were not suitable for the birthing woman. Therefore, few postnatal mothers changed birthing positions to ease the pain that they felt while in the supine position. Midwives thought that alternative positions were not good despite evidence that points to increased benefits associated with these positions compared to the supine position (Mselle & Eustace, 2020).

2.1.4 Factors Associated with the utilization of alternative birth positioning:

1. Shared decision:

The WHO recommends that woman should be given an opportunity to make a choice on the type of position to use during labour (Yadav et al., 2021). Although, a qualitative study explores how maternity care providers communicate with women during the second stage of labor regarding birthing position mentioned that women's involvement in shared decision-making during birth is a complex phenomenon. Shared decision making in other aspects of health care requires time, space for conversation, and opportunity to gain insights into the preferences and desires that an individual may have for her health care outcomes. In the context of the second stage of labor, the process of sharing information, communicating clinical findings, and reaching a decision may be more challenging for women than is usually described in the literature on shared decision making (Nieuwenhuijze et al., 2014).

Also, it funds that when maternity care provider communication with women is a dynamic process, it enables women's involvement in shared decisions regarding the use of birthing positions. Maternity care providers in this investigation moved between an open, informative approach to a more closed, directive approach, depending on the needs of the woman and clinical assessments. Limited information was given to the woman and her partner about birthing positions overall; and in a number of cases, birthing positions were only discussed when the duration of the second stage of labor was longer or progress was limited. In this study, women who appeared to be more aware of possible birthing positions, and who

expressed their wishes for certain positions, were able to use their preferences (Nieuwenhuijze et al., 2014).

Thachuk's models of informed consent and informed choice (defined as actively giving women a choice in birthing positions, but taking control if obstetrically indicated or if women can or will not make choices themselves) were useful in distinguishing two different approaches of midwives to women's positions during labour. Giving women an informed choice in birthing positions can be a good alternative either to letting women choose or encouraging them to use upright positions. Informed choice was. To achieve informed choice about birthing positions for all women, midwives' working conditions need serious consideration equipment could be more midwife-friendly (De Jonge et al., 2008).

However, a lack of choice also appeared to be a dominant factor affecting birth positions in labor. Midwives and not mothers chose the birth position. Despite the prevalence of lithotomy position reported in this study, many mothers reported this position to be not helpful. This is in contrast to the midwives' views that they were focusing on how helpful lithotomy position was to assist them rather than from the woman's perspective (Diorgu et al., 2016). This is in line with what was reported in another study as we discussed previously in this chapter, the shared decision-making and more active involvement of consumers in their health care could increase consumers' perceptions of control, which in turn could improve health outcomes (Musie et al., 2019).

2. Mothers' Preferences

Consistent with other study, the nurse-midwives reported that mothers who had delivered several times or had had previous deliveries in the village challenged them by insisting on assuming birthing positions other than supine. This attitude of the mothers was perceived negatively by nurse-midwives, who termed it 'uncooperative' as the mothers' wishes contradicted the views of the nurse-midwives. The nurse-midwives responded by encouraging them to assume the supine position instead (Mselle & Eustace, 2020).

3. Midwives' Preferences

This preference for the supine position explained by Zang and his college in a study conducted at 2021 as it may be due to a lack of knowledge about its advantages and disadvantages among midwives during their professional training and this was evident in a qualitative study, revealed divergent and ambiguous views among midwives. Their knowledge was primarily based on clinical experience rather than evidence-based practice. Three main themes emerged:

1. Safety and availability: midwives had divergent and ambiguous perceptions regarding the indications and contraindications of upright positions.
2. Unclear method of implementation: midwives found it challenging to implement upright positions due to inconsistent evidence. Views on the time limit for

- maintaining upright positions varied significantly. Some midwives believed the duration should be based on the woman's feelings rather than a specific time period
3. Lack of knowledge of potential risks and precautions: midwives lacked knowledge about the potential risks of upright positions. Many believed it increased the risk of perineal trauma, although no severe trauma was observed in practice. Developing an evidence-based protocol is imperative for successful implementation (Zang et al., 2021).

For the promotion of birth positions in labor, the context influences considerably the possibility of suggesting the positions to the woman in labor, relationship with other healthcare providers, women feature (such as culture, physical conditions, personality, behavior etc.), FHR auscultation appeared, the detection of uterine contractions and amniotomy affects the proposal of positions it seemed to be a limiting factor in the use of positions (Garbelli & Lira, 2021).

There were various reasons cited by the midwives for preferring or deferring a particular birth position. Ease and convenience in conducting the delivery was the foremost reason chosen in advocating a birth position. Whereas overcrowding in the labour room, ignorance about alternate positions and difficulty in converting to instrumental delivery were cited as reasons of not recommending these positions (Yadav et al., 2021).

4. Skills, Resources, and Communication Challenges

Other barriers to utilize alternative birthing positions are lack of necessary skills and training, lack of facilities and equipment and communication difficulties between midwives and women, the shortage of necessary equipment leads to the following implications such as staff members being overworked, risk of infections for the midwives, inadequate monitoring and delays in treatment, resulting in avoidance to use alternative birth positions. Another highlighted barrier that coexists is the language barrier, this barrier was emphasized as a communication difficulty resulting from the parties speaking different languages (Musie et al., 2019).

5. Obstetric indications:

Furthermore, the strength of labour may be so overwhelming that they are not able to decide which position is most appropriate. In addition, obstetric indications may arise that make a change of position necessary, also midwives emphasize a wide array of obstetric indications, some of which are supported by research evidence (De Jonge et al., 2008).

In addition to the fact that many nursing officers lack the necessary skills for conducting delivery in alternate birth positions (Yadav et al., 2021). This was in line with what mentioned in another study, most of the midwives expressed that they have no skill to conduct birth in an alternative birth position (Musie et al., 2019).



1. Lithotomy position



2. Dorsal supine position:



3. SIMs position



4. Squatting position



5. kneeling position



6. Side-lying position



7. Birthing stool position



8. Birthing bar position

Figure (2.1) Types of alternative birth positioning

2.2 Conceptual Frame work:

The conceptual framework addresses the major concepts and variables of this study, including midwives' awareness and associated factors toward the utilization of birthing position.

2.2.1 Independent variables:

Conceptual definition of demographic characteristics: These characteristics refer to the personal and professional demographic factors that influence people's lives and experiences. These characteristics include factors such as age, age, educational level, post basic university practice, post basic clinical practice, years of experience in this hospital, and previous experiences. The statistical characteristics of human populations (such as age or income) used especially to identify market (Shoven, 2023).

Operational definition of demographic characteristics refers to the measurable personal and professional attributes of midwives, including their age, educational level, engagement in post-basic university training, participation in post-basic clinical practice, years of experience working in their current hospital, and any prior professional experiences. These variables was collected through a structured questionnaire to assess their influence on midwives' awareness and practices regarding maternal alternative birth positioning.

Conceptual definition of associated factor: associated factors are variables that show a significant relationship with an outcome in epidemiologic studies, often guiding hypotheses about causation or intervention planning (Aschengrau & Seage, 2013).

Operational definition of associated factor: this study identified the **women related factor** influencing alternative birth positioning: which can identify as a specific maternal medical conditions, preferences, or clinical needs that impact the choice of alternative birth positioning.

Partner Involvement: the presence and active participation of the woman's husband or companion during labor and delivery. Partner support may encourage or discourage the use of specific maternal positions.

Technology and Advanced Monitoring Tools: the availability and use of technological equipment such as continuous fetal monitoring devices, electronic cardiotocography (CTG), and intravenous infusions that may restrict maternal mobility or limit the ability to adopt alternative birthing positions during labor.

Hospital policies: institutional protocols, guidelines, or constraints that influence the practice of alternative birth positioning during labor.

2.2.2 dependent variables:

Conceptual definition of awareness: It can be understood as the information and data that have been learned and assumed within a cognitive system, forming part of an individual's intellectual legacy, and can include structured and organized information, experimental familiarity, and a comprehensive understanding of a subject, both in **theory** and **practice** (Bolisani et al., 2018).

Operational definition of awareness: In this study, awareness refers to the midwives' understanding and application of knowledge related to alternative birth positioning. In two primary domains:

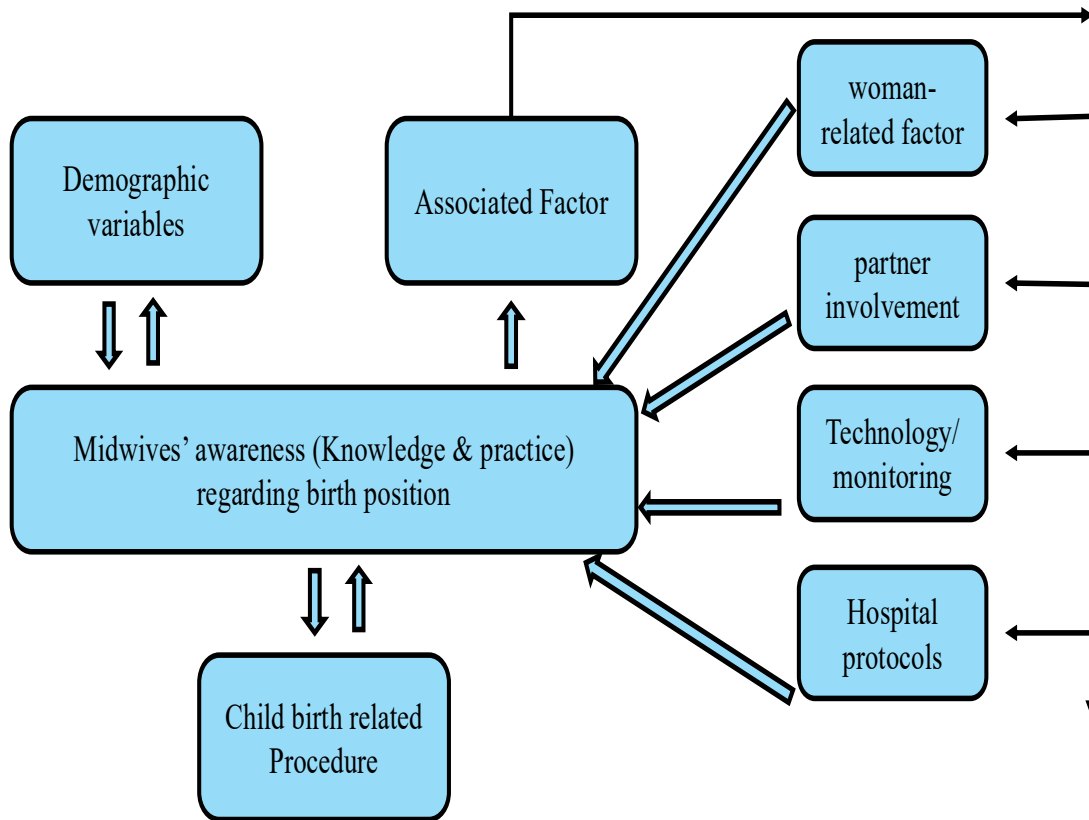
Knowledge: the extent to which midwives understand the theoretical aspects of different birthing positions, including the benefits and necessity of implementing them during labor.

Practice: evidence-based actions and professional behaviors that midwives adopt to facilitate the progress of labor, optimize maternal and fetal outcomes, and promote vaginal birth. This includes assessing, recommending, and assisting with maternal movements and positions that relieve discomfort, improve oxygenation, and promote effective labor management.

Awareness was measured through a structured questionnaire targeting these domains.

Conceptual definition of alternative birth positioning utilization A key non-invasive strategy to improve labor outcomes, enhance maternal comfort, and support the natural progression of childbirth, particularly through the use of upright and mobile positions that promote optimal fetal positioning and reduce labor interventions (Kemp et al., 2021).

Operational definition of positioning UTILIZATION: Alternative birth positions" in this study refer to any non-traditional position adopted by the mother during the labor in hospitals in the Southern West Bank, chosen based on the mother's preferences, the midwife's assessment, and available health conditions, or as per hospital protocols, with the aim of improving the birthing experience, reducing pain, was measured through a structured questionnaire targeting these domains.



Figur (2.2) Conceptual Frameworks Diagram

Chapter Three

Methodology

3.1 Introduction

This chapter outlines the methodology, research design, research instruments, data collection methods, population and sampling, and content analysis pertinent to the study. Additionally, it addresses the validity and reliability of the research. Lastly, the chapter presents the ethical considerations associated with the study.

3.2 Research design

The research design was a descriptive, quantitative, and cross-sectional study.

Quantitative data were collected through a questionnaire, and a descriptive method was utilized to assess midwives' awareness and the factors associated with positioning during labor in the delivery room in the southern West Bank. This study was cross-sectional, as data were gathered from participants at a single point, between May 1, 2025, and August 15, 2025.

3.3 Research instrument (Questionnaire)

This study used a previously developed self-administered questionnaire (Garbelli & Lira, 2021) to assess midwives' awareness and associated factors regarding positioning during labor. The original questionnaire was obtained after contacting the author via email, and the tool was shared upon approval. To ensure its suitability for the study objectives, the questionnaire undergoes a peer review process by experts in the field to evaluate its relevance, clarity, and comprehensiveness. Necessary modifications were made to align the tool with the specific characteristics of the target community and the environment where the study was conducted. Additionally, the questionnaire was translated into Arabic to ensure clarity and ease of understanding for the participating midwives.

Questionnaire Structure:

Part one: demographic information

To gather essential personal and professional information about the midwives, the questionnaire included seven questions. These questions cover age, educational background, hospital affiliation, post-basic university training, post-basic clinical practice, years of experience at the hospital, and prior experiences. Initially, this section contained twelve questions but was revised to better align with the study's objectives and ensure contextual relevance.

Part two: midwives' awareness of birth positions

The assessment evaluates midwives' knowledge, skills, and practices concerning maternal positions during labor. It consists of two domains: the first includes 9 multiple-choice questions designed to assess midwives' knowledge, while the second contains 10 Likert-scale items (rated 1-5) that measure the performance of childbirth-related procedures in relation to using birth positions and allowing free movements.

Part three: factors influencing the use of birth positions

It examines the contextual and institutional factors that influence the proposal and use of maternal positions. It includes Likert-scale questions that assess how various elements, such as hospital policies, fetal monitoring, and the availability of ultrasound, impact midwives' practice. Additionally, it explores whether external factors affect midwives' ability to utilize these positions.

3.4 Validity and reliability

This questionnaire was originally utilized by Garbelli & Lira in 2021, with established reliability and validity. Following our modifications to enhance clarity, relevance, and comprehensiveness, the questionnaire underwent internal consistency testing, including Cronbach's alpha, to ensure that the items consistently measure the same concept.

The reliability analysis using Cronbach's Alpha revealed acceptable to high levels of internal consistency for the study instrument. For the demographic data section (6 items), the Cronbach's Alpha value was 0.731, indicating an acceptable level of reliability. The section addressing midwives' awareness of birth positions (29 items) yielded a Cronbach's Alpha of 0.706, which also reflects an acceptable degree of reliability. In contrast, the section on factors influencing the use of birth positions (6 items) showed a very high Cronbach's Alpha value of 0.946, demonstrating excellent internal consistency. Overall, these findings confirm that the instrument employed in this study is reliable and suitable for measuring the intended variables. To further bolster data reliability, standardized administration procedures were implemented across all hospitals.

3.5 Data collection method

Data were collected over the period from May 1, 2025, to August 15, 2025, after obtaining ethical approval from the Institutional Review Board (IRB) of Al-Quds University and official permission from the seven hospitals administrators in the Southern West Bank.

Following these approvals, the researcher personally visited each selected hospital and met with the head nurses or midwifery supervisors to arrange and facilitate the data collection process.

The researcher explained the purpose of the study to all potential participants and assured them of confidentiality, anonymity, and voluntary participation. Midwives who consented to take part were provided with the self-administered questionnaire during their work shifts. Afterward, the questionnaires were re-collected and checked for completeness before data entry and analysis.

3.6 Study setting

The study was conducted in hospitals in the southern West Bank; Hebron and Bethlehem after obtaining permission.

Table (3.1) List of Bethlehem hospital

#	Hospital Name	Hospital type	Midwives number
1	Bit-Jala governmental hospital (BJGH)	Governmental	18
2	Holy Family Hospital (HFH)	Private	26
3	Al-Dibs hospital	Private	8
4	Shepherd's Field Hospital	Private	6

Table (3.2.A) List of Hebron hospital

#	Hospital Name	Hospital type	Midwives number
1	Alia Governmental Hospital	Governmental	34
2	Al Ahli hospital	Private	25
3	Al Mizan hospital	Private	22
4	Red Crescent Society hospital / Hebron	Private	7
5	Al Malaki Specialist Hospital	private	9
6	President Mahmoud Abbas Hospital, Halhul	Governmental	11
7	Bani Na'im Maternity Hospital	Private	9
8	Red Crescent Society hospital / Halhul	Private	8
9	Martyr Abu Al-Hassan Al-Qasim Governmental Hospital	Governmental	15
10	Nasser Maternity Hospital	Private	4
11	Mohammad Ali Al-Muhtaseb Governmental Hospital	Governmental	13

3.7 Population and sampling

The target population of the study was midwives working in labour room in the southern west-bank; Hebron and Bethlehem which was 215 a statistical formula (Cochran, 1977) was used to calculate the sample size to be representative of all population to prevent selection and sampling bias.

$$N = \frac{Z^2 \times p \times (1 - p)}{e^2}$$

N: required sample size (before adjusting for finite population).

Z: corresponding to the desired confidence level (e.g., 1.96 for 95% confidence).

p: estimated proportion of the population with the characteristic of interest (0.5 used as it maximizes sample size in unknown cases).

e: margin of error (e.g., 0.05 for ±5%).

Z=1.96 (for 95% confidence level)

p=0.5 (maximum variability),

e=0.05 (±5% margin of error).

N=215

$$n = \frac{1.96^2 \times 0.5 \times (1 - 0.5)}{0.05^2}$$

$$n = \frac{3.8416 \times 0.5 \times 0.5}{0.0025} \quad N = \frac{3.8416 \times 0.25}{0.0025}$$

$$n = \frac{0.9604}{0.0025} = 384.16$$

For finite populations, I adjust N by using finite population correction: which is a statistical adjustment applied to sample size calculations when the population being studied is finite. It accounts for the increased precision gained when sampling a large proportion of the population, leading to a reduced required sample size compared to calculations based on infinite populations (Cochran, 1997 page 75)

$$Final\ n = \frac{n}{1 + \frac{n-1}{N}}$$

$$Final\ n = \frac{384.16}{1 + \frac{384.16 - 1}{215}}$$

$$Final\ n = \frac{384.16}{1 + 1.78} = \frac{384.16}{2.78} = 138.2 \approx 138\ midwives$$

Cluster Sampling method was used:

- A. Clusters are the hospitals
 1. Bit-Jala Governmental Hospital
 2. Holy Family Hospital
 3. Al-Dibs Hospital

4. Shepherd's Field Hospital
5. Alia Governmental Hospital
6. Al-Ahli Hospital
7. Al-Mizan Hospital
8. Red Crescent Society Hospital / Hebron
9. Al-Malaki Specialist Hospital
10. President Mahmoud Abbas Hospital, Halhul
11. Bani Na'im Maternity Hospital
12. Red Crescent Society Hospital / Halhul
13. Martyr Abu Al-Hassan Al-Qasim Governmental Hospital
14. Nasser Maternity Hospital
15. Mohammad Ali Al-Muhtaseb Governmental Hospital

B. A number of hospitals were selected by lottery, and the staff working in them was taken as a participating sample.

1. Bit-Jala Governmental Hospital =18
2. Holy Family Hospital= 26
3. Alia Governmental Hospital = 34
4. Al-Ahli Hospital = 25
5. President Mahmoud Abbas Hospital, Halhul = 11
6. Martyr Abu Al-Hassan Al-Qasim Governmental Hospital= 15
7. Al Mizan Hospital= 25

154 Questionnaires are distributed in those hospitals, based on the cluster sampling method as explained here.

1.8 Inclusion criteria:

- Registered midwives
- Working in the selected hospitals in (labor room).
- Were available at the time of data collection process
- Agree to participate in the study.

3.9 Exclusion criteria

Midwives who do not meet the previous criteria were excluded

3.10 Data analysis

The collected data was analyzed by the Statistical Package for Social Sciences (SPSS) Version (29). Data analysis of descriptive and inferential statistics was conducted. Regarding descriptive statistics, frequency, percentages, mean score and Standard Deviation (SD) were used to describe the study variables. Regarding inferential statistics, A parametric tests were used such as independent t test and One Way Analysis of Variance

(ANOVA) test were used to assess the difference between study variables after assessing the normality of the data using the Kolmogorov-Smirnov and Shapiro Willk tests ($p \leq 0.05$). As seen in Table 1.

Table (3.3): Normality tests

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Degrees of Freedom (Df)	Probability Value p-value	Statistic	df	p-value
Awareness Total Mean Score	.086	105	.056	.977	105	.062

**Significant value $p \leq 0.05$*

3.11 Ethical consideration

Ethical permission was taken from ethical committee at Al-Quds University via email, informed consent was taken from participants and confidentiality and anonymity of participants' data maintained in all stages of research.

Chapter Four

Results

4.1 Introduction

This chapter presents the findings of the study on midwives' awareness and associated factors that influencing the application of birthing positions during labor. The results are organized and displayed according to the study objectives, using descriptive and inferential statistics. Descriptive statistics summarize the demographic characteristics of the participants, levels of awareness, practices, and perceptions regarding birthing positions. Inferential statistics, including independent t-tests and one-way ANOVA, are used to examine differences in awareness across demographic variables. Tables and figures are provided to illustrate the distribution of responses and highlight key findings.

4.2 Demographic Variables of the Midwives

The study included 105 midwives. Nearly half of the participants were aged 20–29 years (46.7%), followed by those aged 30–39 years (42.9%), and a smaller proportion aged 40–49 years (10.5%). In terms of education, the majority held a Bachelor's degree (79.0%), while equal proportions had a diploma (10.5%) or higher education such as a master's or high diploma (10.5%).

Regarding university background, most graduated from Bethlehem University (38.1%) or Al-Quds University (28.6%), with others from Hebron University (15.2%) and Nablus University for Vocational and Technical Education (18.1%). Less than half of the midwives reported previous specialized training in midwifery (42.9%), while more than half did not (57.1%).

The participants worked across several hospitals, with the largest groups at Alia Governmental Hospital (25.7%), Al-Ahli Hospital (16.2%), Al-Mezan Hospital (15.2%), Abu Hassan Hospital (15.2%), the Holy Family Hospital Nazareth (14.3%), Beit Jala Governmental Hospital (7.6%), and Mahmoud Abbas Hospital (5.7%).

Concerning work experience, many had worked as midwives for 1–5 years (28.6%) or 5–10 years (28.6%), followed by 10–15 years (21.0%), less than 1 year (11.4%), and more than 15 years (10.5%). In their current workplace, most had served for 1–5 years (34.3%) or 5–

10 years (26.7%), while smaller proportions reported 10–15 years (16.2%), less than 1 year (12.4%), and more than 15 years (10.5%). As seen in Table 1.

Table (4. 1) Demographic variables of the midwives (n=105)

Demographic variables	n	%	
Age Group (years)	20-29	49	46.7%
	30-39	45	42.9%
	40-49	11	10.5%
Level of Education	Diploma	11	10.5%
	Bachelor's Degree	83	79.0%
	Higher education (Master or and high diploma)	11	10.5%
University name	Al-Quds University	30	28.6%
	Bethlehem University	40	38.1%
	Hebron University	16	15.2%
	Nablus University for Vocational and Technical Education	19	18.1%
Previous training in a clinical/professional field specialized in the midwifery track?	Yes	45	42.9%
	No	60	57.1%
Hospital Name	Al-Mezan hospital	16	15.2%
	Al-Ahli hospital	17	16.2%
	Alia governmental hospital	27	25.7%
	Beit Jala governmental hospital	8	7.6%
	Abu Hassan Hospital	16	15.2%
	The Holy Family Hospital Nazareth	15	14.3%
	Mahmoud Abbas hospital	6	5.7%
How many years have you worked as a midwife?	Less than 1 year	12	11.4%
	1–5 years	30	28.6%
	5–10 years	30	28.6%
	10–15 years	22	21.0%
	More than 15 years	11	10.5%
How long have you been working in your current workplace?	Less than 1 year	13	12.4%
	1–5 years	36	34.3%
	5–10 years	28	26.7%
	10–15 years	17	16.2%
	More than 15 years	11	10.5%

4.3 Midwives' Awareness of Birthing Positions

As mentioned earlier, awareness in this study covers two different domains: knowledge and practice. In this section, result of each domain was discussed separately.

4.3.1 Midwives knowledge related birth position:

The midwives' knowledge related to the goals of using maternal positions and movements during labor, the majority indicated facilitating the baby's progress into the birth canal (91.4%), promoting the correct fetal position (72.4%), and reducing the risk of FHR abnormalities while improving oxygenation (67.6%). Other commonly chosen goals included making uterine contractions more effective (44.8%), shortening the duration of labor (56.2%), reducing perineal trauma (53.3%), and making pain more tolerable (58.1%). Less frequently, midwives highlighted encouraging partner involvement (26.7%) and strengthening the empathetic relationship between the couple and the midwife (32.4%).

Table (4.2) Goals of using birth positions

#	Is it a goal?	Yes		No	
1	Facilitating the baby's progress into the birth canal	n=96	91.4%	n=9	8.6%
2	Promoting the correct fetal position	n=76	72.4%	n=29	27.6%
3	reducing the risk of FHR abnormalities while improving oxygenation.	n=71	67.6%	n=34	32.4%
4	making uterine contractions more effective	n=47	44.8	n=58	55.2%
5	Shortening the duration of labor	n=59	56.2%	n=46	43.8%
6	Reducing perineal trauma	n=56	53.3%	n=49	46.7%
7	Making pain more tolerable	n=61	58.1%	n=44	41.9%
8	Encouraging partner involvement	n=28	26.7%	n=77	73.3%
9	Strengthening the empathetic relationship between the couple and the midwife	n= 34	32.4%	n=71	67.6%

The majority of participants (57.1%) supported adding maternal position information to partographs. The majority of participants (80.0%) correctly identified the squatting position as the most beneficial for both pelvic outlet expansion and back pain relief. The majority of participants (51.4%) selected the knee–chest position because it helps expand the pelvic inlet and protects fetal heart rate stability. The majority of participants chose all-fours (23.8%) and sitting (22.9%) positions for perineal protection. The majority of participants used asymmetric positions to help the fetus rotate and fix asynclitism (41.0%). The participants chose walking (37.1%) and multiple combined approaches (35.2%) to enhance weak contractions. As seen in Table 3.

Table (4.3) Knowledge items toward *birthing positions* (n=105)

#	Item		N	%
10	Would a partograph section on maternal positions help promote their use?	Yes	60	57.1%
		No	6	5.7%
		I don't Know	39	37.1%
11	Which of the following statements regarding the squatting position is correct?	Neutralizes gravity and increases comfort.	16	15.2%
		Uses gravity, widens pelvic outlet, reduces back pain.	84	80.0%
		Recommended with sensory/motor block from epidural.	4	3.8%
		Not suggested during labor.	1	1.0%
12	Which position is best if a woman feels the urge to push before full dilation with severe back pain?	No specific position	21	20.0%
		Squatting position	54	51.4%
		Upright position	8	7.6%
		All-fours position	22	21.0%
13	Which position best increases pelvic inlet diameter and reduces FHR changes from the supine position?	Kneeling position	5	4.8%
		Knee-chest position	43	41.0%
		Squatting position	33	31.4%
		None of the above	24	22.9%
14	Based on your experience, which of the following positions best ensures perineal safety?	Squatting position	20	19.0%
		All-fours position	25	23.8%
		Upright position	16	15.2%
		Sitting position	24	22.9%
		Other	20	19.0%
15	If the fetus is in occipital-posterior position during advanced labor, which position would you suggest?	No specific position	6	5.7%
		Lateral position, followed by semi-recumbent on the opposite side of the fetal back	62	59.0%
		Lateral position, followed by semi-recumbent on the same side as the fetal back	23	21.9%
		Squatting position	8	7.6%
		Other	6	5.7%
16	The primary goal to be pursued when using asymmetric birthing positions is:	Promote fetal rotation and correct asynclitism.	43	41.0%
		Reduce cervical edema late in first stage.	18	17.1%
		Lessen early pushing urge.	6	5.7%
		Ease fetal head passage under symphysis pubis.	38	36.2%
17	Which position best improves weak or ineffective contractions?	Upright position	5	4.8%
		Knee-chest position alternating with semi-recumbent	18	17.1%
		Walking	39	37.1%
		All of the above	37	35.2%
		Other	6	5.7%

Bold reflect awareness among midwives for each item

4.3.2 Midwives practice of birth position:

Midwives rated their skill level in maternal positions and free movements during labor as good (46.7%) or very good (34.3%), while fewer rated it neutral (15.2%), bad (1.9%), or very bad (1.9%). Similarly, their actual use of maternal positions and movements during labor was mostly rated as good (46.7%) or very good (32.4%), with fewer reporting neutral (19.0%), bad (1.0%), or very bad (1.0%).

Table (4.4) *The midwives' evaluation of their skills and actual use of birthing positions.*

#	Item		n	%
1	I assess my skill level regarding maternal positions and free movements during labor.	Very Bad	2	1.9%
		Bad	2	1.9%
		Neutral	16	15.2%
		Good	49	46.7%
		Very Good	36	34.3%
2	I assess my actual use of maternal positions and movements during labor.	Very Bad	1	1.0%
		Bad	1	1.0%
		Neutral	20	19.0%
		Good	49	46.7%
		Very Good	34	32.4%

The practice of birth-related procedures during the application of birthing positions.

At the item level, some procedures practice rated as having a high influence included the need to monitor the FHR in non-lithotomy positions ($M = 3.79$, $SD = 0.917$), the need to perform an episiotomy ($M = 4.02$, $SD = 1.038$), and the need to perform artificial rupture of membranes (ARM) ($M = 3.77$, $SD = 1.085$).

Several factors demonstrated a moderate influence, such as the need to perform vaginal examinations ($M = 3.58$, $SD = 0.998$), difficulty detecting contractions in non-lithotomy positions ($M = 3.42$, $SD = 1.099$), the need to place the hand on the perineum (Hands-on) ($M = 3.60$, $SD = 1.088$), and the use of epidural anesthesia ($M = 3.98$, $SD = 1.056$). Additionally, interpersonal relationships with colleagues in the delivery room were rated the lowest but still within the moderate range ($M = 2.70$, $SD = 1.395$). As seen in Table 3.

Table (4.5) Birth-related procedures had an association with the application of birthing positions among midwives (n=105)

#	Item	Mean	SD	Status
3	The need to perform a vaginal examination affects the possibility of applying positions during labor.	3.58	.998	Moderate
4	The need to monitor FHR in a non-lithotomy position affects the possibility of applying positions during labor.	3.79	.917	High
5	The difficulty of detecting contractions in a non-lithotomy position affects the possibility of applying positions during labor.	3.42	1.099	Moderate
6	The need to place the hand on the perineum (Hands-on) affects the possibility of applying positions during labor.	3.60	1.088	Moderate
7	The use of epidural anesthesia affects the possibility of applying positions during labor.	3.98	1.056	Moderate
8	The need to perform an episiotomy affects the possibility of applying positions during labor.	4.02	1.038	High
9	The need to perform artificial rupture of membranes (ARM) affects the possibility of applying positions during labor.	3.77	1.085	High
10	My relationships with colleagues in the delivery room affect the possibility of applying positions during labor*	2.70	1.395	Moderate
Total Mean Score (8 items)		3.60	.607	Moderate

Cut off points; 1-2.33=Low, 2.34-3.66=Moderate, 3.67-5=High

Higher mean score means higher influence to BP

**Reversed coded*

In conclusion, the findings of this part as presented in Figure 1 indicate that more than half of the midwives (53.3%) demonstrated a lack of awareness regarding birthing positions, while only 46.7% showed adequate awareness based on the median cutoff point (16 out of 27). This result highlights a noticeable gap in midwives' understanding and implementation of different birth positions.

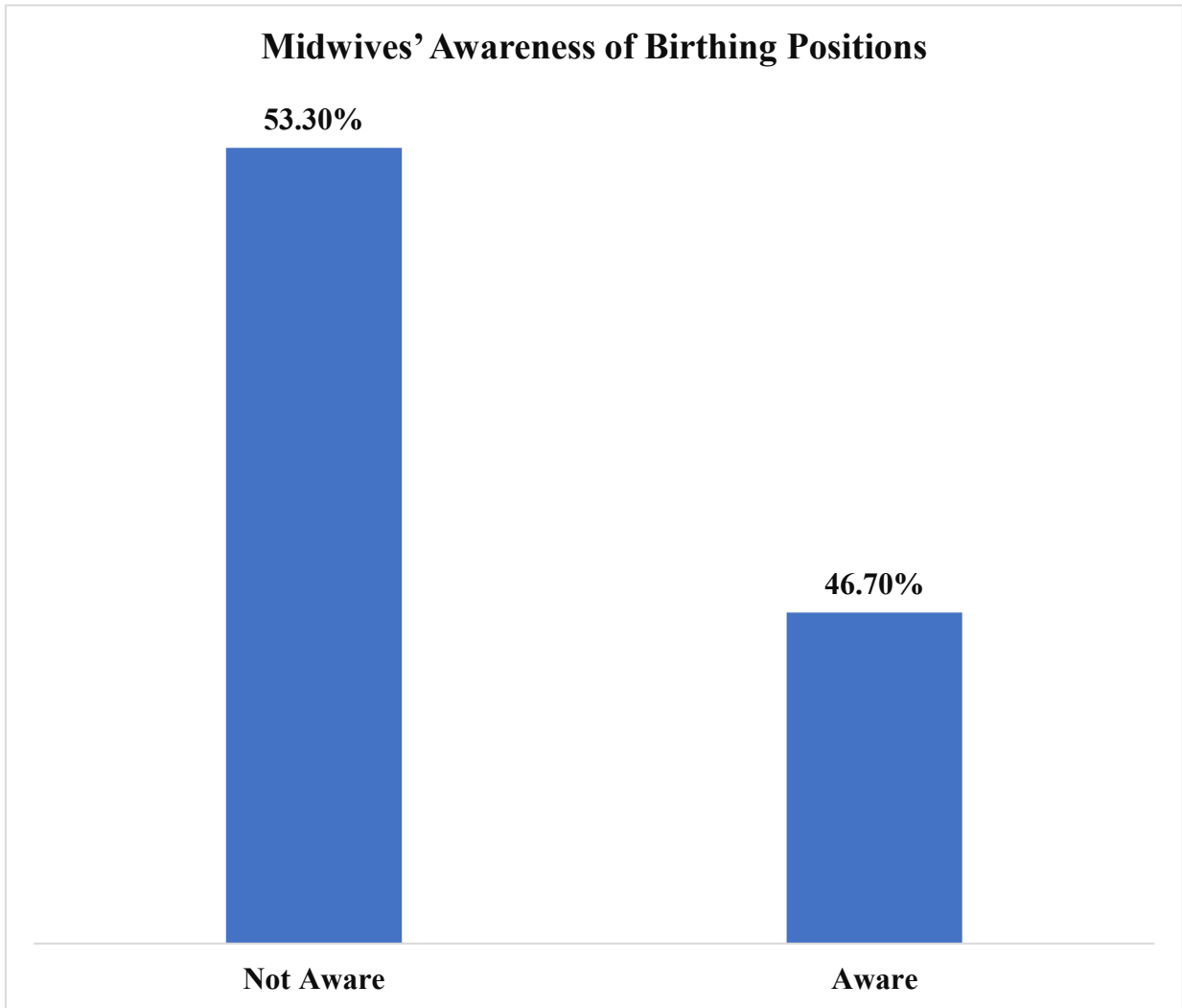


Figure (4.1) *Midwives' awareness of birthing positions based on the median as a cutoff point (16 over 27)*

4.4 Associated factors related birthing positions

Availability of protocols for positions during labor

The chart shows that no such protocol was available as midwives reported (100%). As seen in Figure 2.

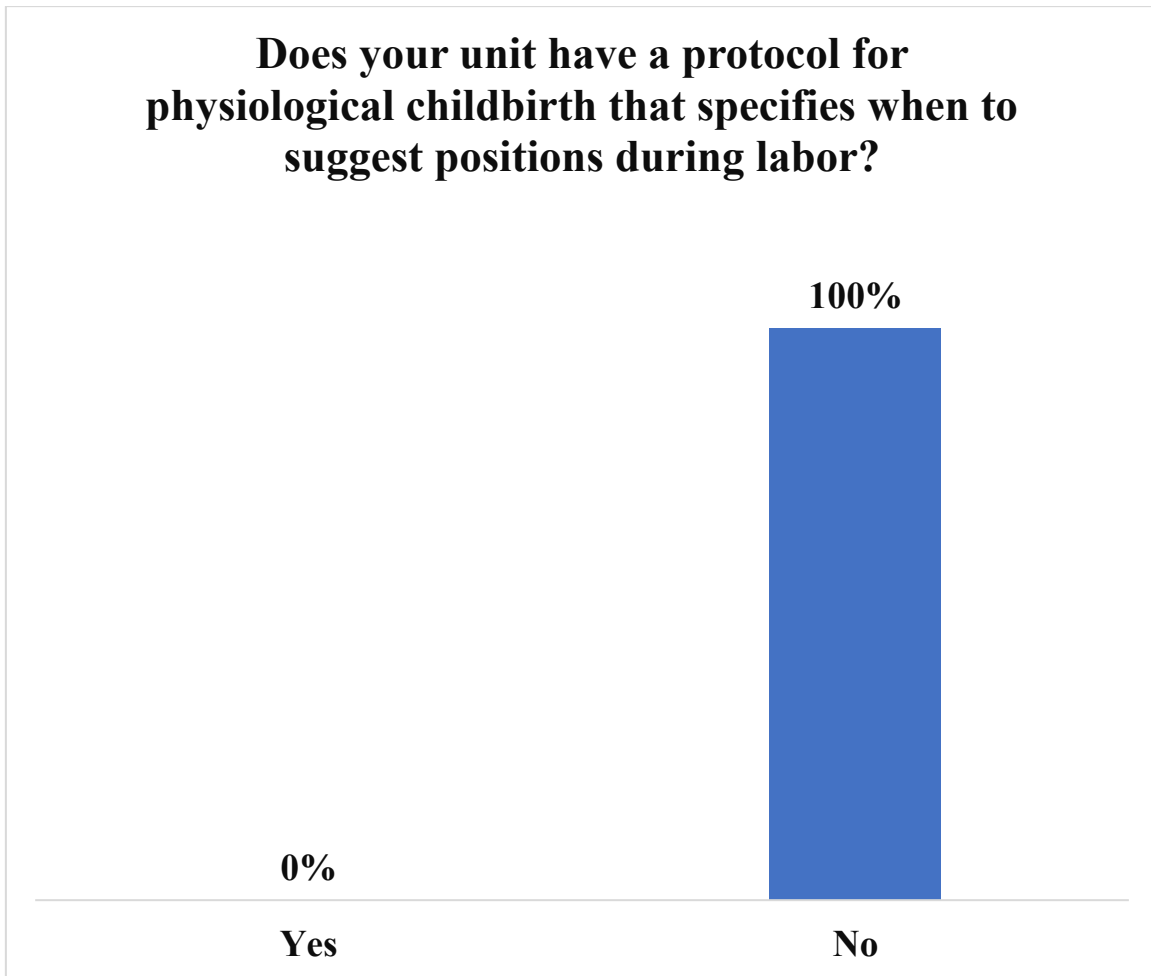


Figure (4.2) *Does your unit have a protocol for physiological childbirth that specifies when to suggest positions during labor?*

The Degree of Association of These Factors on The Use of Different Positions During Childbirth

At the item level, the strongest influencing factor was the need for continuous CTG and fetal monitoring (M = 4.20, SD = 0.813), followed by the availability of a wireless fetal heart monitoring device (M = 4.10, SD = 1.055). Other highly influential factors included the woman’s characteristics and needs such as culture, ethnicity, and physical condition (M = 3.97, SD = 1.042), the possibility of involving the partner through supportive actions like massage and pelvis rocking (M = 3.79, SD = 1.016), and the availability of an ultrasound device in the delivery room (M = 3.68, SD = 1.205).

Table (4.6) The degree of influence of associated factors on the use of different positions during childbirth (n=105)

Item	Mean	SD	Status
1. The woman's characteristics and needs (culture, ethnicity, physical condition, personality, etc.) affect the suggestion and use of positions.	3.97	1.042	High
2. The possibility of involving the partner (massage, pelvis rocking, etc.) affects the suggestion and use of positions.	3.79	1.016	High
3. The availability of a wireless fetal heart monitoring device affects the use of birthing positions.	4.10	1.055	High
4. The need for continuous CTG and fetal monitoring affects the suggestion and use of birthing positions.	4.20	.813	High
5. The availability of an ultrasound (US) device in the delivery room affects the use of birthing positions.	3.68	1.205	High
Total Mean Score (5 items)	3.94	.744	High

Cut off points; 1-2.33=Low, 2.34-3.66=Moderate, 3.67-5=High

Higher mean score means higher influence / Mean score over 5

4.5 Differences in midwives' awareness of birthing positions based on demographic data:

The analysis revealed significant differences in midwives' awareness of birthing positions based on level of education, university attended, and hospital affiliation. A Tukey post hoc test indicated that the midwives with higher education (Master's/high diploma) demonstrated the highest awareness (M = 18.55, SD = 2.94) compared to those with a bachelor's degree (M = 15.86, SD = 3.70) and diploma holders (M = 17.45, SD = 3.53; $p = 0.041$). Likewise, a Tukey post hoc test indicated that the graduates of Bethlehem University (M = 17.43, SD = 3.71) and Al-Quds University (M = 16.40, SD = 3.15) showed higher awareness scores than graduates of Hebron University (M = 14.88, SD = 2.66) and Nablus University for Vocational and Technical Education (M = 15.00, SD = 4.58; $p = 0.035$). In terms of hospital affiliation, a Tukey post hoc test indicated that the midwives working at Beit Jala Governmental Hospital (M = 19.50, SD = 4.17) and Alia Governmental Hospital (M = 17.93, SD = 3.04) scored higher compared to those at Al-Mezan (M = 14.50, SD = 2.66) and Abu Hassan hospitals (M = 14.50, SD = 4.46; $p < 0.001$). On the other hand, no statistically significant differences in awareness were observed across age groups, previous specialized training, years of experience as a midwife, or years of work in the current workplace. As seen in table 5.

Table (4.7) Differences between demographic variables of midwives in terms of awareness (n=105)

Demographic variables		N	Mean	SD	Statistical values	P-value
Age Group (years)	20-29	49	15.88	4.13	F=.736 df=2	0.482
	30-39	45	16.56	2.91		
	40-49	11	17.18	4.60		
Level of Education	Diploma	11	17.45	3.53	F=3.304 df=2	0.041*
	Bachelor's Degree	83	15.86	3.70		
	Higher education (Master or \and high diploma)	11	18.55	2.94		
University name	Al-Quds University	30	16.40	3.15	F=2.976 df=3	0.035*
	Bethlehem University	40	17.43	3.71		
	Hebron University	16	14.88	2.66		
	Nablus University for Vocational and Technical Education	19	15.00	4.58		
Previous training in clinical/professional field specialized in the midwifery track?	Yes	45	15.75	3.50	T=-1.323 df=103	0.189
	No	60	16.71	3.81		
Hospital Name	Al-Mezan hospital	16	14.50	2.66	F=4.276 df=6	<0.001*
	Al-Ahli hospital	17	15.47	3.12		
	Alia governmental hospital	27	17.93	3.04		
	Beit Jala governmental hospital	8	19.50	4.17		
	Abu Hassan Hospital	16	14.50	4.46		
	The Holy Family Hospital Nazareth	15	17.13	3.34		
	Mahmoud Abbas hospital	6	14.67	3.14		
How many years have you worked as a midwife?	Less than 1 year	12	15.08	4.66	F=2.051 df=4	0.093
	1-5 years	30	15.20	3.18		
	5-10 years	30	16.70	4.10		
	10-15 years	22	17.77	2.65		
	More than 15 years	11	16.64	3.83		
How long have you been working in your current workplace?	Less than 1 year	13	15.00	4.47	F=1.691 df=4	0.158
	1-5 years	36	15.61	3.33		
	5-10 years	28	16.68	4.03		
	10-15 years	17	17.94	2.73		
	More than 15 years	11	16.64	3.83		

Independent t test and One Way ANOVA

**Sig at $p \leq 0.05$*

Chapter Five

Discussion

5.1 Introduction

The research examined how midwives understand and practice birthing positions and which elements affect their use of these positions during labor. The research results show how current knowledge deficits and hospital systems and real-world challenges affect the delivery of childbirth care by midwives.

5.2 Midwives' Awareness of Birthing Positions

5.2.1 Knowledge of Birthing Positions

The research demonstrated that 53.3% of participating midwives lacked knowledge and practice related to various birthing positions although 46.7% of them stated they were familiar with them. The study reveals a significant knowledge deficit toward birth position among midwives which creates important challenges for their practice. Previous research studies and the WHO affirm that birthing positions such as squatting, kneeling, and lateral positions lead to improved labor outcomes, enhanced fetal oxygenation, increased maternal comfort, reduced need for interventions, and greater maternal satisfaction compared to the traditional supine or lithotomy position (Scholten et al., 2025; WHO, 2018).

The study results match previous research which demonstrated that midwives and nurses worldwide lack sufficient knowledge about using different birthing positions during delivery. The Italian study by Garbelli and Lira (2021) demonstrated that Italian midwives lacked proper training for positions outside the supine position because they received insufficient education and faced institutional obstacles like; lack of hospital policies supporting alternative birthing positions, shortage of appropriate equipment (e.g., birthing stools, mats, adjustable beds), and lack of continuing education or in-service training. The study by Luo et al. (2025) demonstrated that midwives who knew about alternative birthing positions faced barriers to practice because of hospital rules and insufficient facilities and cultural norms that favored provider convenience over maternal wishes.

While another study done by Yadav and his college in 2021 aims at assessing the knowledge regarding alternative birth positions among nursing officers claims that approximately 77% of study participants knew about alternate birth positions a woman can assume for childbirth. The most known birth position apart from lithotomy was squatting (26/52) followed by sitting (19/52). The least known birth position among nursing officer was standing (7/52) (Yadav et al., 2021).

The findings indicated that more than half of the participating midwives demonstrated a clear lack of knowledge regarding various birthing positions, which can be attributed to several factors related to education, training, and institutional support:

First, pre-service education often does not adequately cover evidence-based methods for alternative birthing positions, focusing primarily on the traditional supine or lithotomy positions, leaving midwives ill-prepared to support women in other positions during labor.

Second, the absence of continuous in-service training or professional development programs within hospitals limits midwives' opportunities to update their knowledge and acquire practical skills necessary for safely implementing alternative positions.

Third, the lack of supportive policies from hospitals and health authorities discourages the use of alternative birthing positions, as clear protocols or guidelines are often unavailable. Finally, the limited availability of essential equipment, such as birthing stools, mats, or wireless monitoring tools, poses practical barriers to applying alternative positions, since most facilities rely on conventional equipment that only accommodates the supine position. Collectively, these factors create a significant gap between theoretical knowledge and practical application, directly impacting the quality of care provided to women during labor.

Multiple approaches must be implemented to resolve this knowledge deficit through better midwifery education about birthing positions and ongoing professional development and updated hospital policies and labor ward resource availability. The combination of antenatal education programs teaching expectant mothers about birthing position advantages will help midwives achieve their goals by making women more likely to ask for and practice these options during labor. The discovery of widespread midwife unawareness about birthing positions demonstrates the need for immediate policy changes and educational improvements to build midwifery competencies for delivering safe evidence-based respectful childbirth care.

5.2.2 Practice of Birthing Positions

The study revealed that only a small proportion of midwives rated their skills and actual practice regarding birthing positions as very good, with 34.3% for skills and 32.4% for practice. This indicates that most midwives did not perceive themselves as highly competent

in applying birthing positions. Furthermore, self-assessment may not always reflect evidence-based practice, as external factors

"These findings align with previous research who reported that although many midwives had adequate theoretical knowledge about birth positions, only a smaller proportion demonstrated good or excellent skills in applying these positions during labor. This suggests that knowledge does not always translate into practical competence, highlighting the need for targeted training and skill development (Garbelli and Lira, 2021).

This gap between knowledge and practice is further reflected in the study's findings regarding birth-related procedures during the application of birthing positions:

The study results indicate that the choice of birthing position is primarily influenced by several factors: some of these factors rated as having a high influence included the need to monitor the FHR in non-lithotomy positions, the need to perform an episiotomy, and the need to perform artificial rupture of membranes (ARM). Other factors demonstrated a moderate influence, such as the need to perform vaginal examinations, difficulty detecting contractions in non-lithotomy positions, the need to place the hand on the perineum (Hands-on), and the use of epidural anesthesia. Additionally, interpersonal relationships with colleagues in the delivery room were rated the lowest but still within the moderate range.

The need to monitor the FHR in non-lithotomy positions.

These findings are supported by previous research (Garbelli and Lira, 2021) that showed factors limiting the proposal of maternal positions were the context, the relationships with healthcare providers, the woman features, the fetal heart rate registration, continuous cardiotocography, amniotomy, episiotomy, operative vaginal birth, and epidural analgesia (Garbelli and Lira, 2021). They also stated in non-horizontal positions, the FHR auscultation appeared to be difficult for 74.6%, the need to perform the episiotomy greatly impacts on the application of free positions (Garbelli and Lira, 2021). Consistent with existing research, which suggests that healthcare providers tend to avoid supporting women in non-lithotomy positions due to the belief that it complicates cardiotocographic surveillance (Fatma et al., 2025).

Similarly, a study in South Africa found most midwives were concerned that they do not possess the necessary skills and training to conduct alternative birth positions and are not confident enough with the skill:

"We do not have facilities to use alternative birth positions. I only saw equipment for lithotomy position... I think the main problem is facilities..." (Musie et al., 2019).

The use of wireless or handheld Dopplers under proper training enables safe fetal monitoring during non-lithotomy positions, which protects maternal choice according to WHO (2018).

Episiotomy needs:

Indicates that this requirement strongly limits midwives from recommending different birthing positions to their patients. The lithotomy position remains the preferred choice for providers because it enables them to perform surgical procedures, including episiotomy and instrumental deliveries (Yadav et al., 2021).

Consistent with research investigated to explore the views of midwives on women's positions during the second stage of labour. conducted in 2008 provided a basic knowledge about the topic which we cannot overcome it despite the time, mentioned that they preferred to perform an episiotomy or vaginal examination in supine position and, as a result, women often proceeded to have a supine birth. In five of the groups, some of the midwives said that they let women lie on their backs for the actual birth, even if they had been pushing in other positions, to have a better view of the perineum or because conducting the delivery in that position was easier (De Jonge et al., 2008).

On other hand some research findings show that women who give birth in upright positions face lower risks of episiotomy and perineal injuries, which contradicts the common practice of using lithotomy for episiotomy access (Scholten et al., 2025).

Practice using lithotomy for procedural convenience demonstrates how institutional and cultural beliefs about provider efficiency take precedence over evidence-based woman-centered care. Midwives need to receive suitable monitoring equipment, and healthcare institutions need to modify their protocols to decrease episiotomy rates and support natural birth methods. The application of these measures would reduce these obstacles while building midwife confidence and aligning clinical practice with worldwide standards for respectful maternity care based on evidence.

Epidural anesthesia:

As noted in a recent evidence review, women can adopt a variety of positions during labour; however, for women with an epidural in situ, remaining mobile may be more difficult, there may be less urge to push, and the effectiveness of pushing may be reduced (NICE, 2023). These findings support the results of the current study, which indicated that the use of epidural anesthesia moderately influenced midwives' ability to assist women in alternative birthing positions

5.3 Associated factors with use of different birthing positions

The research results demonstrated that midwives select birthing positions based on their need for ongoing CTG and fetal monitoring (M = 4.20), followed by the availability of wireless fetal heart monitoring equipment (M = 4.10). The results demonstrate that technology requirements and monitoring needs determine the selection of birthing positions made by midwives during labor. Research studies confirm that electronic fetal monitoring

requirements force healthcare providers to keep patients in supine or lithotomy positions because these positions provide the best access to monitoring equipment (Gupta et al., 2017; O’Heney et al., 2022).

The need for ongoing CTG and fetal monitoring

Continuous intrapartum electronic fetal monitoring via continuous CTG is a widely used method to assess fetal well-being during labour, with the aim of identifying signs of fetal hypoxia or distress that may warrant intervention (Alfirevic et al., 2017). Yet this practice does not lead to superior neonatal results than intermittent auscultation and it restricts maternal movement, which reduces the advantages of using upright positions (Alfirevic et al., 2017).

This raises concerns about the routine use of continuous CTG, especially in low-risk pregnancies, where the benefits in neonatal outcomes may not outweigh the potential drawbacks. On the other hand, recent research suggests that maternal position during fetal monitoring (e.g. semi-Fowler or lateral positions) can influence CTG parameters and maternal comfort a randomized controlled trial found that non-supine positions during monitoring were associated with more favorable fetal heart rate accelerations, increased fetal movements, and improved maternal comfort compared to supine position (Y. Esencan et al., 2025). These findings highlight the importance of allowing flexibility in maternal positioning during CTG to optimize both fetal monitoring quality and maternal experience, and question the common practice of supine or bed-bound CTG monitoring protocols without accommodating maternal mobility.

The availability of equipment determines the freedom of movement for providers and women because facilities without wireless or portable Doppler devices force them to stay in fixed positions yet these tools enable greater mobility and position variety (Priddis et al., 2012). The study results show that women's cultural background and physical condition and ethnic background ($M = 3.97$) together with their individual characteristics influence their selection of birthing positions. The birth in 8 cultures book demonstrates that cultural norms and physical characteristics and health status determine which positions women prefer and which positions midwives will support (Davis-Floyd & Cheyney, 2019). The cultural background of a woman determines her preference for birth positions because some cultures support upright positions as natural and empowering but others accept supine birth as the standard which restricts women from choosing different positions. The research indicates that better birthing position utilization needs both physical infrastructure improvements for wireless monitoring access and education programs to reduce CTG usage and enhance care practices that respect women's cultural backgrounds and personal requirements.

5.4 Association between demographic variables

The research results showed that midwives with postgraduate qualifications such as master's degrees or high diplomas demonstrated better birthing position awareness than those with

bachelor's degrees or diplomas. The research findings support the idea that advanced education leads to better critical thinking abilities and evidence-based practice and wider clinical competency exposure including maternal positioning during childbirth (Bäck et al., 2017; Renfrew et al., 2014). The combination of extensive theoretical education and international guideline exposure and research participation opportunities at their institutions explains why midwives with advanced degrees demonstrated higher awareness at higher levels. The results showed that midwives who studied at universities with strong midwifery programs and worked in hospitals with good resources and positive clinical environments achieved better scores. The study supports earlier research which shows that midwives develop their knowledge and skills and confidence in birthing positions through their educational background and their work environment (Berg et al., 2023; Filby et al., 2016). The results indicate that knowledge acquisition about birthing positions depends more on formal education and institutional context than on personal or professional experience. The results demonstrate that midwifery education needs improvement and equal access to continuing education programs must exist throughout all universities and hospitals to establish uniform birthing position awareness and practice.

Conclusion

The research demonstrates that midwives demonstrate restricted knowledge about birthing positions while their practice choices depend on personal elements and organizational settings. The study revealed that more than 50% of participants showed no awareness of birthing positions beyond the standard lithotomy position because knowledge gaps persist in practice. The study revealed that continuous CTG requirements and episiotomy procedures and monitoring device availability act as primary barriers to position diversity because they support the lithotomy position over woman-centered birthing positions. The research demonstrated that midwives with higher education levels demonstrated better awareness but university and hospital differences indicated that curriculum quality and workplace culture directly affect their knowledge and confidence levels. The study results showed that formal education and workplace environment play a more significant role than experience does because age and years of experience and prior training failed to produce meaningful effects. The research demonstrates an immediate requirement to improve midwifery education while providing modern monitoring tools and creating supportive hospital policies which promote evidence-based birthing positions to achieve better maternal results and respectful maternity care.

Recommendations

1. The education system should incorporate comprehensive modules on natural childbirth and various birthing positions for students at both undergraduate and postgraduate levels in midwifery education. The training program must include regular workshops and simulation-based practice to equip midwives with both theoretical knowledge and practical skills for implementing different birthing positions.
2. The national health system and hospital management must develop evidence-based guidelines for physiological childbirth that specify appropriate times and methods for recommending different birthing positions to patients. These protocols should align with WHO recommendations to ensure that midwives support mothers using evidence-based practices while honoring their right to make informed choices.
3. Hospitals need to be equipped with essential tools such as wireless fetal monitoring devices, birthing stools, and mats that facilitate safe monitoring and support in non-lithotomy positions.
4. Hospital management should promote policies that prioritize woman-centered care, which includes engaging birth partners and respecting cultural needs.
5. Midwives should be encouraged to engage in ongoing professional development programs focused on evidence-based intrapartum care, emphasizing the benefits, safety, and physiological aspects of various birthing positions.
6. Professional midwifery associations and policymakers should work together to establish awareness campaigns and national initiatives that promote active birthing positions, to enhance both public and professional understanding of their benefits.
7. Future research should qualitatively investigate the barriers that hinder midwives from utilizing alternative birthing positions, such as institutional constraints, cultural attitudes, and insufficient training, while proposing solutions to address these challenges.
8. Hospital administrators ought to conduct regular audits and assessments of midwifery practices concerning labor positions to guarantee adherence to revised clinical guidelines and promote ongoing quality enhancement.
9. Interprofessional training sessions and teamwork models should enhance collaboration between obstetricians and midwives, promoting shared decision-making and improving childbirth outcomes.

Strengths

- The study addresses an underexplored area in maternal health, providing valuable baseline data on midwives' awareness and practices regarding birthing positions in the West Bank, Palestine, which has not been well-documented in the local setting.
- The findings directly inform educational, institutional, and policy interventions that could improve midwives' practice and maternal care outcomes, making the study highly applicable for health system strengthening.
- The use of a validated questionnaire enhanced the reliability and consistency of data collection, strengthening the credibility of the study findings.
- Inclusion of midwives from both governmental and private hospitals provided a broader representation of current practices across different healthcare settings.
- The study highlights the gap between evidence-based recommendations and actual clinical practice, offering a clear direction for future training programs and guideline development.

Limitations

- The study captures data at a single point in time, which limits the ability to establish causal relationships between influencing factors and awareness or practice of birthing positions.
- The reliance on participants' responses may be subject to recall bias or social desirability bias, potentially affecting the accuracy of reported awareness and practices.
- The study sample was drawn from specific hospitals and universities, which may not fully represent all midwives in the country or in other regions with different resources and cultural contexts.
- The use of a self-administered questionnaire limits the ability to observe actual clinical practice, as reported practices may differ from real-time behavior in the labor room.
- The study did not include direct assessment of institutional policies or written guidelines, which may have limited deeper exploration of organizational influences on birthing position practices.
- Time and workload constraints of midwives may have influenced participation and the depth of responses provided.

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Appendices

Approval Letter from the Faculty of Graduate Studies

Al-Quds University
Jerusalem
Deanship of Scientific Research



جامعة القدس
القدس
عمادة البحث العلمي

Research Ethics Committee
Committee's Decision Letter

Date: March 4, 2025
Ref No: 517/REC/2025

Dears Dr. Maha Nahal, Ms. Balqees Hamdan,

research ethics application. After reviewing your submission titled: "Midwives' Awareness and Associated Factors Regarding Positioning During Labor in Southern Region/West Bank", the Research Ethics Committee (REC) at Al-Quds University confirms that your application aligns with our ethics guidelines, which are based on the principles outlined in the Declaration of Helsinki.

Please note that this approval does not replace other required permissions, such as for sample shipment or data sharing. We also request a copy of your final report or publication when available.

This approval is valid for two years. If your research extends beyond this period, a renewal request will be necessary. The approval remains valid as long as there are no changes to the research protocol.

Sincerely,

Suheir Ereqat, PhD
Associate Professor of Molecular Biology

Research Ethics Committee Chair

Cc. Prof. Imad Abu Kishek - President
Cc. Members of the committee
Cc. file

Al Quds University
Faculty of Health Professions
Jerusalem – Abu Dis



جامعة القدس
كلية المهن الصحية
القدس – أبو ديس

Research Ethics Subcommittee of Faculty of Health Professions
Letter of approval

Feb. 24, 2025
Ref. No.: RESC/2025-29

Dear Applicants, (Dr. Maha Nahal, Ms. Balqees Hamdan)

Program: MSc Nursing Department

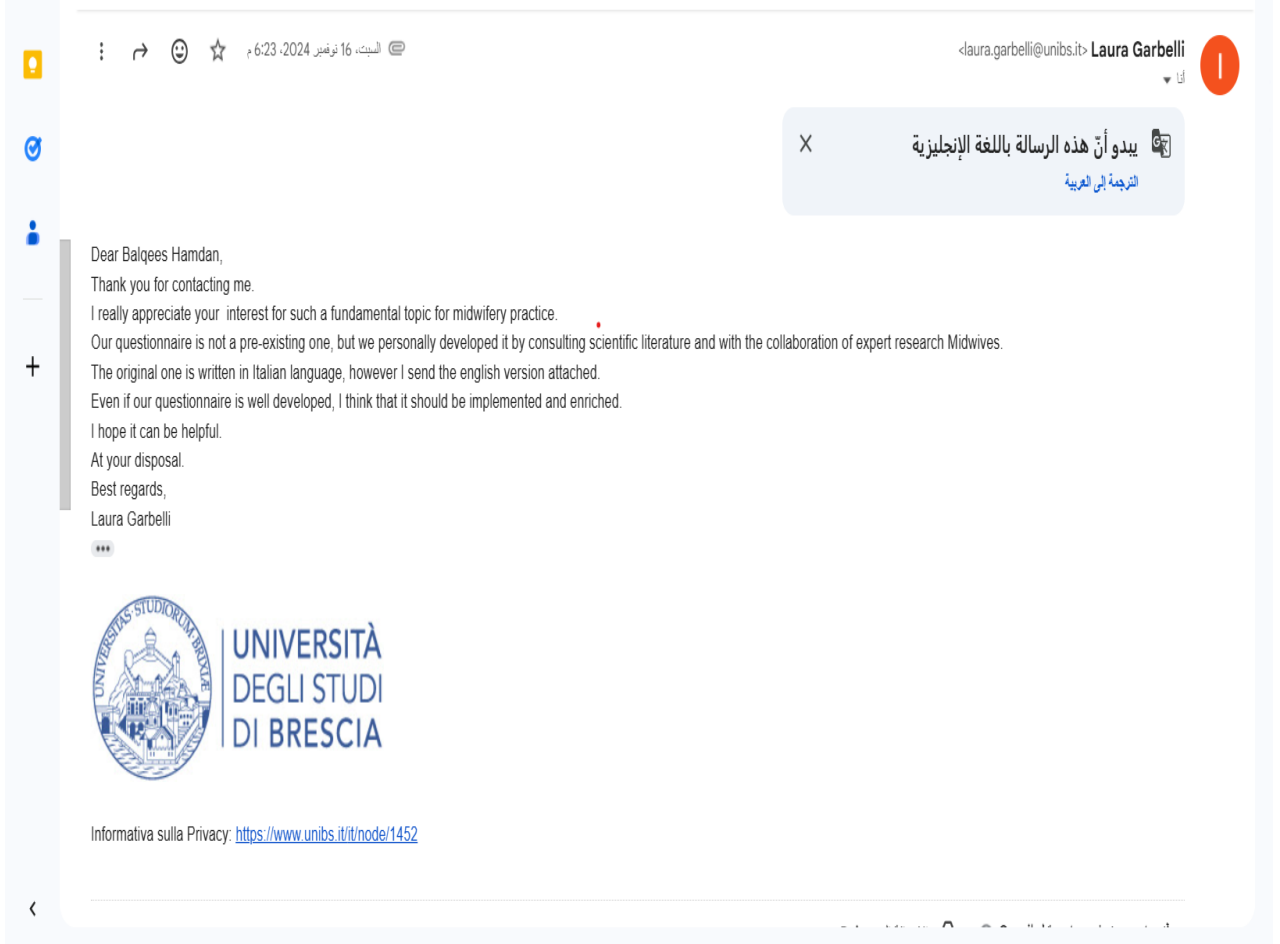
The Research Ethics subcommittee of the Faculty of Health Professions has recently reviewed your proposal entitled (**Midwives' Awareness and Associated Factors Regarding Positioning During Labor in Southern Region/West-bank**) submitted by (Dr. Maha Nahal). Your proposal is deemed to meet the requirements of research ethics at Al-Quds University, but further assessment is required by the Central Research Ethics Committee of Al-Quds University. We wish you all best for the conduct of the project.

Hussein ALMasri, PhD

Hussein ALMasri

Associate Professor of Medical Imaging
Research Ethics Subcommittee Chair
Faculty of Health Professions

Permission Letter to Use the Questionnaire (Garbelli & Lyra, 2021)



The screenshot shows an email interface. At the top right, the sender is identified as Laura Garbelli with the email address <laura.garbelli@unibs.it>. The recipient's name, Baiqees Hamdan, is partially visible. The email body contains the following text:

Dear Baiqees Hamdan,
Thank you for contacting me.
I really appreciate your interest for such a fundamental topic for midwifery practice.
Our questionnaire is not a pre-existing one, but we personally developed it by consulting scientific literature and with the collaboration of expert research Midwives.
The original one is written in Italian language, however I send the english version attached.
Even if our questionnaire is well developed, I think that it should be implemented and enriched.
I hope it can be helpful.
At your disposal.
Best regards,
Laura Garbelli

Below the text is the logo of the University of Studi di Brescia, which includes a circular emblem with a building and the text 'UNIVERSITAS STUDIORUM BRESCIAE' and 'UNIVERSITÀ DEGLI STUDI DI BRESCIA'. At the bottom, there is a link for privacy information: <https://www.unibs.it/it/node/1452>. A notification bubble in the top right corner of the email interface reads: 'يبدو أنّ هذه الرسالة باللغة الإنجليزية الترجمة إلى العربية' (It seems this message is in English, translation to Arabic).

الاستمارة المستخدمة في جمع المعلومات



جامعة القدس
Al-Quds University

أنا القابلة بلقيس علي محمد حمدان، طالبة ماجستير في كلية الدراسات العليا – جامعة القدس، وأجري حالياً دراسة بعنوان:

" وعي القابلات والعوامل المرتبطة بوضعية الولادة أثناء المخاض في مستشفيات جنوب الضفة الغربية." "

Midwives' Awareness and Associated Factors Regarding Positioning During Labor in Southern Region/West-bank

تهدف هذه الدراسة إلى تقييم وعي القابلات بالممارسات المختلفة لوضعيات الولادة أثناء المخاض، بالإضافة إلى تحديد العوامل المؤثرة في استخدامها، مثل العوامل الديموغرافية والسياسات المتبعة في المستشفيات، العوامل المتعلقة بالأمهات.

نطلب منكم التكرم بالمشاركة في هذه الدراسة من خلال تعبئة استبيان، والذي يستغرق حوالي 10 إلى 15 د لإكماله. مشاركتكم في هذه الدراسة طوعية بالكامل، ولديكم الحق في الانسحاب في أي وقت دون أي تأثير على عملكم أو وضعكم المهني. ونود إعلامكم أن جميع المعلومات التي يتم جمعها ستبقى سرية تماماً، ولن يتم استخدامها إلا لأغراض البحث العلمي. سيتم عرض النتائج بشكل مجمل دون الإشارة إلى أي فرد بعينه.

يمكنكم الحصول على النتائج بمجرد نشرها من خلال التواصل معي عبر الهاتف أو البريد الإلكتروني المدرج في نهاية الصفحة. إذا كان هناك أي سؤال أو استفسار أثناء تعبئة الاستبيان، يمكنكم الاستفسار للحصول على توضيحات إضافية.

شكراً جزيلاً لكم على وقتكم ومساهمتم القيمة في هذا البحث.

Phone number: 0527362857

Email address: balqeeshamdan89@gmail.com

القسم الأول: المعلومات الديموغرافية
يمكنك تجاوز أي سؤال تعتقد أنه قد يشير إليك شخصياً

أجب عن المعلومات الأساسية الشخصية والمهنية التالية:

1. أكتب عمرك _____
2. المؤهل التعليمي:
- أ. دبلوم
- ب. بكالوريوس
- ج. ماجستير
- د. دبلوم عالي
3. أذكر الجامعة التي تخرجت منها
4. هل خضعت لتدريب ما بعد البكالوريوس في مجال سريري/ مهني متخصص في مسار الولادة؟

2. لا

1. نعم
5. كم سنة عملت فيها كقابلة؟
- أ- $1 >$ سنة
- ب- من 1 إلى 5 سنوات
- ت- من 5 إلى 10 سنوات
- ث- من 10 إلى 15 سنة
- ج- $15 <$ سنة
6. منذ متى تعملين في المكان الذي تعملين فيه؟
- أ- $1 >$ سنة
- ب- من 1 إلى 5 سنوات
- ت- من 5 إلى 10 سنوات
- ث- من 10 إلى 15 سنة
- ج- أكثر من 15 سنة

المجموعة التالية من الأسئلة تقييم مدى معرفة القابلات بوضعيات الولادة والحركة أثناء الولادة

1. الهدف الذي يجب تحقيقه باستخدام أوضاع الأم والحركات أثناء المخاض هو:
 - (يمكنك اختيار أكثر من إجابة)
 - أ- تسهيل تقدم الجنين إلى قناة الولادة.
 - ب- تعزيز وضع الجنين الصحيح.
 - ت- تقليل خطر حدوث خلل في معدل ضربات القلب أثناء الولادة وتعزيز الأكسجين الجيد للجنين.
 - ث- جعل النشاط الانقباضي أكثر انتظامًا وفعالية.
 - ج- تقليل وقت المخاض.
 - ح- تقليل صدمة العجان.
 - خ- جعل الأم أكثر احتمالاً.
 - د- تشجيع مشاركة الشريك.
 - ذ- تعزيز العلاقة التعاطفية بين الزوجين والقابلة.

2. هل تعتقد أن استخدام مخطط بارتوجرافي يحتوي على قسم مخصص لاستخدام المواقف والحركات الحرة يمكن أن يساعدك في إثبات المواقف والترويج لها؟
أ. اختلف بشدة ب اختلف ج. محايد د. أوافق ه. أوافق بشدة

3. أي من العبارات التالية المتعلقة بوضعية القرفصاء تعتبر صحيحة؟
أ- تساعد على تحييد تأثير الجاذبية وتساهم في راحة المرأة.
ب- تساعد على الاستفادة من قوة الجاذبية، وتزيد من أقطار مخرج الحوض، ويمكن أن تقلل من آلام أسفل الظهر.
ت- يوصى بها في حالة وجود انسداد حسي أو حركي في الأطراف السفلية نتيجة لاستخدام التخدير فوق الجافية.
ث- ليست وضعية يُقترح استخدامها أثناء المخاض.

4. إذا شعرت المرأة برغبة في الدفع قبل اكتمال التوسع، مصحوبة بألم شديد في أسفل الظهر، فما الوضعية التي تقترحها؟
أ- لا يوجد وضعية محددة
ب- وضعية القرفصاء (Squatting)
ت- الوضعية العمودية (Upright)
ث- وضعية على الأطراف الأربعة (all fours)

5. لزيادة حجم مدخل الحوض وتقليل أي تغييرات في معدل ضربات قلب الجنين (FHR) الناتجة عن وضع الاستلقاء على الظهر، أي من الوضعيات التالية تعتقد أنها الأفضل؟
أ- وضعية الركوع (Kneeling)
ب- وضعية الركبة – الصدر (Knee-chest position)
ت- وضعية القرفصاء (Squatting)
ث- لا شيء مما سبق

6. وفقاً لخبرتك، أي من الوضعيات التالية تضمن بشكل أفضل سلامة العجان؟
أ- وضعية القرفصاء (Squatting)
ب- وضعية الأطراف الأربعة (all fours)
ت- الوضعية العمودية (Upright)
ث- وضعية الجلوس (Sitting)
ج- أخرى: _____

7. الهدف الأساسي الذي يجب متابعته باستخدام وضعيات الولادة غير المتماثلة هو:
أ- تعزيز الدوران الداخلي للجنين وتصحيح عدم التناسق (asynclitism).
ب- تقليل الوذمة (edema) في عنق الرحم في نهاية المرحلة الأولى من المخاض
ت- تقليل الشعور بالدفع المبكر

ث- تسهيل مرور رأس الجنين أسفل عظم العانة (symphysis pubic)

8. في وجود طلق قليل او غير فعال، أي مما يلي، وفقاً لتجربتك، هو أفضل وضع لتصحيحه وبالتالي تعزيز الطلق الأكثر فعالية؟

- أ- الوضع العمودي (Upright)
- ب- وضع الركبتين والصدر ((Knee-chest position)) بالتناوب مع نصف الاستلقاء
- ت- المشي
- ث- كل ما سبق
- ج- آخر: _____

9. إذا كنت تشك أثناء مرحلة متقدمة من المخاض في أن الجنين في وضع القذالي الخلفي (occipito-posterior position)، فأأي وضع تقترحه على المرأة الحامل؟

- أ- لا يوجد وضع محدد
- ب- الوضع الجانبي (Lateral)، يليه وضع شبه الاستلقاء على الجانب المقابل للجانب الذي يقع فيه ظهر الجنين
- ت- الوضع الجانبي (Lateral) ، يليه وضع شبه الاستلقاء على نفس جانب ظهر الجنين
- ث- وضع القرفصاء (squatting)
- ج- آخر: _____

المجموعة التالية من الأسئلة تهدف إلى تقييم ممارسة القابلات لوضعيات الولادة والحركات

10. ضع إشارة صح في العامود المناسب لتحديد درجة تأثير هذه الإجراءات المتعلقة بالولادة على استخدام الوضعيات المختلفة أثناء الولادة:

القسم الثاني: وعي القابلات بوضعيات الولادة

تقيم هذه الأسئلة معرفة القابلة ومهاراتها وممارستها فيما يتعلق بوضعيات الأم أثناء المخاض:

العبرة	على الإطلاق	قليلاً	متوسط	إلى حد ما	كثير جداً
تؤثر الحاجة الى إجراء الفحص المهبلي على إمكانية تطبيق وضعيات أثناء المخاض.					
تؤثر الحاجة الى تسجيل معدل ضربات قلب الجنين (FHR) في وضع غير أفقي. (non-lithotomy position) على إمكانية تطبيق وضعيات أثناء المخاض					
تؤثر صعوبة اكتشاف الطلق في وضع غير أفقي. (non-lithotomy position) على إمكانية تطبيق وضعيات أثناء المخاض					
تؤثر الحاجة لوضع اليد على العجان. (Hands on) على إمكانية تطبيق وضعيات أثناء المخاض					
يؤثر استخدام التخدير فوق الجافية على إمكانية تطبيق وضعيات أثناء المخاض					
تؤثر الحاجة إلى إجراء شق العجان على إمكانية تطبيق وضعيات أثناء المخاض					
تؤثر الحاجة إلى شق العشاء الأمنيوسي (ARM) على إمكانية تطبيق وضعيات أثناء المخاض					
تؤثر علاقتي مع زملاء العمل في غرفة الولادة على إمكانية تطبيق وضعيات أثناء المخاض.					

11. ضع إشارة صح في العمود المناسب:

العبرة	سيء جداً	سيء	مقبول	جيد	جيد جداً
أقيم مستوى مهاراتي فيما يتعلق بوضعيات الأم والحركات الحرة أثناء الولادة.					
أقيم استخدامي الفعلي لوضعيات الأم والحركات أثناء المخاض.					

القسم الثالث: العوامل المؤثرة على استخدام وضعيات الولادة

a. هل يوجد في وحدة الولادة الخاصة بك بروتوكول لرعاية الولادة الفسيولوجية مع إشارات محددة لاستخدام الوضعيات التي سيتم اقتراحها أثناء المخاض وفقاً للسبب السريري؟

1. نعم
2. لا

12. ضع إشارة صح في العمود المناسب لتحديد درجة تأثير هذه العوامل على استخدام الوضعيات المختلفة أثناء الولادة:

العبارة	على الإطلاق	قليلاً	متوسط	إلى حد ما	كثيراً جداً
تؤثر خصائص المرأة واحتياجاتها (الثقافة، العرق، الظروف الجسدية، الشخصية، الخ) على اقتراح واستخدام المواقف.					
تؤثر إمكانية إشراك الشريك (بالتدليك، وهز الحوض (pelvis rocking)، وما إلى ذلك) على اقتراح واستخدام المواقف.					
تؤثر إمكانية توفر جهاز مراقبة نبض الجنين لاسلكي على استخدام وضعيات الولادة.					
تؤثر الحاجة إلى استخدام مراقبة تخطيط القلب والجنين المستمرة على اقتراح واستخدام وضعيات الولادة.					
يؤثر توفر جهاز الموجات فوق الصوتية US في غرفة الولادة استخدام وضعيات الولادة					

شكرًا لتعاونكم

وعي القابلات بأوضاع الولادة البديلة والعوامل المرتبطة باستخدامها في جنوب الضفة الغربية

إعداد: القابلة بلقيس حمدان

إشراف: د. مها نحال

الملخص

الخلفية: أجريت هذه الدراسة لتقييم وعي القابلات وممارساتهن فيما يتعلق بوضعيات الولادة أثناء المخاض في المستشفيات الواقعة في جنوب الضفة الغربية. نُفذت الدراسة خلال العام الأكاديمي 2024-2025 واستهدفت القابلات العاملات في المستشفيات الحكومية والخاصة في المنطقة الجنوبية. تناول البحث فجوة واضحة في تطبيق الوضعيات البديلة للولادة رغم تزايد الأدلة العالمية التي تدعم فوائدها في تعزيز راحة الأم، وتحسين تقدم المخاض، وتحسين نتائج المواليد.

الهدف: هدفت هذه الدراسة إلى تقييم مستوى وعي القابلات، وفحص ممارساتهن الفعلية، وتحديد العوامل السريرية والديموغرافية والسياقية التي تؤثر على استخدام وضعيات الولادة أثناء المخاض. وقد تم اعتماد تصميم بحثي كمي لضمان قياس موضوعي لمستويات الوعي والممارسة.

المنهجية: جُمعت البيانات باستخدام استبيان مُهيكل طوّره في الأصل Lyra و Garbel (2021)، وتم الحصول على إذن رسمي لاستخدام الأداة. شمل الاستبيان بنوداً تقيس معرفة الوضعيات المختلفة للولادة، وفهم تأثيراتها الفسيولوجية، وتكرار تطبيقها في الممارسة السريرية. استخدمت الدراسة التصميم المقطعي، وتم تحليل البيانات باستخدام الإحصاءات الوصفية والاستنتاجية لاستكشاف الارتباطات بين الوعي والممارسة والعوامل المؤثرة ذات الصلة.

النتائج الأساسية: أظهرت النتائج أن أكثر من نصف المشاركات (53.3%) يفتقرن إلى وعي كافٍ بوضعيات الولادة، بينما أظهرت 46.7% معرفة مرضية. كما أبرزت النتائج أن العوامل المتعلقة بالنساء، ومشاركة الشريك، وتوفر التكنولوجيا، وسياسات المستشفى

تؤثر بشكل كبير على تطبيق القابلات لمختلف الوضعيات أثناء المخاض. بالإضافة إلى ذلك، ارتبطت الخصائص الديموغرافية مثل سنوات الخبرة والمستوى التعليمي بمستوى الوعي والممارسة.

الاستنتاج: تؤكد هذه النتائج الحاجة إلى برامج تطوير مهني مستمر وتدريب عملي لتعزيز معرفة القابلات وكفاءتهن في تطبيق وضعيات الولادة المبنية على الأدلة. إن تعزيز الوعي ومعالجة العوامل المؤثرة يمكن أن يسهم في تحسين رضا الأمهات، وجعل عملية المخاض أكثر أماناً، وتحسين نتائج المواليد. وتشدد الدراسة على أهمية دمج ممارسات وضعيات المخاض المحدثة في بروتوكولات المستشفيات وتعليم القبالة لضمان رعاية أمومة عالية الجودة.

الكلمات المفتاحية: القابلات، الوعي، وضعيات الولادة، المخاض، العوامل المرتبطة، رعاية الأمومة، الضفة الغربية.