

## Collaboration between Obstetricians, Women's Nursing, and Midwifery in the Operating Room: Towards an Effective Response to Critical Cases

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### Abstract:

In the high-stakes environment of the operating room, the collaboration between obstetricians, women's nursing staff, and midwives is crucial for effectively managing critical cases in maternal healthcare. Obstetricians provide specialized medical care and surgical intervention, while midwives and nurses offer vital support through continuous patient assessment, emotional reassurance, and hands-on care. This triadic partnership creates a multidisciplinary approach that enhances communication, accelerates decision-making, and ensures comprehensive care for the patient. Regular interdisciplinary training and integrated care protocols are essential to strengthen teamwork, promoting shared knowledge and skills that ultimately enhance patient outcomes during emergencies such as postpartum hemorrhage, preeclampsia, or fetal distress. Furthermore, fostering an environment of mutual respect and open dialogue among these professionals is paramount to address the complexities often faced in obstetric emergencies. Effective collaboration minimizes the risk of miscommunication and ensures that each team member's expertise is utilized optimally. Implementing structured communication strategies, such as team huddles and debriefs, can help streamline processes and build a cohesive team dynamic that focuses on patient safety. By prioritizing teamwork in the operating room, the healthcare system can improve its responsiveness to critical cases, ultimately leading to better health outcomes for mothers and infants.

**Keywords:** Collaboration, Obstetricians, Women's Nursing, Midwifery, Operating Room, Critical Cases, Teamwork, Patient Safety, Communication, Multidisciplinary Approach.

### Introduction:

The realm of obstetrics is a complex and multifaceted field where the health and well-being of both mothers and their infants are paramount. As the demand for safe and effective maternal healthcare rises, so does the need for effective

interdisciplinary collaboration within the operating room (OR). In this context, the collaboration between obstetricians, women's nursing professionals, and midwives is essential to ensure comprehensive care, particularly during critical care situations that may arise before, during, and after childbirth. This research examines the nature of this

collaboration, its impact on patient outcomes, challenges faced, and the potential benefits of enhanced teamwork within perioperative environments [1].

The role of obstetricians is primarily focused on managing pregnancy and childbirth complications, providing surgical interventions when necessary, and ensuring both maternal and neonatal safety throughout the process. On the other hand, nurses specializing in women's health play a crucial role in supporting the obstetric team, offering both preoperative and postoperative care while serving as patient advocates. Midwives, trained to handle normal pregnancy and childbirth scenarios, also possess valuable expertise in low-intervention birthing practices. Their inclusion in the care team provides a holistic approach to childbirth and enhances the emotional and psychological support available to the mother, which is sometimes crucial during critical healthcare situations [2].

Critical cases in obstetrics can include emergencies such as severe hemorrhage, fetal distress, antepartum and intrapartum complications, and other unexpected developments that complicate the birth process. The presence of an effective, well-coordinated team within the operating room is vital to address these scenarios swiftly. Existing research demonstrates that collaborative practice in surgical settings significantly improves patient safety outcomes and reduces morbidity, largely due to the diverse skill sets and perspectives that different healthcare professionals bring to the table. For instance, a study conducted by the Joint Commission in the United States highlighted that communication and teamwork are fundamental components of safe surgical care. However, the translation of this principle into practice within obstetric operational settings is not always straightforward [3].

Despite the benefits associated with collaboration, challenges persist. Differences in professional training, varying levels of authority, and potential conflicts in communication styles can hinder effective teamwork. Obstetricians often occupy leadership roles in the OR, which can create an imbalance in the dynamic between obstetricians, nurses, and midwives. Additionally, varying institutional policies and cultural perceptions regarding the roles of midwives and nurses can lead

to misunderstandings and reluctance to embrace a collaborative approach. This highlights the necessity for further research into specific collaboration strategies and frameworks tailored for the obstetric setting, which can facilitate teamwork and reduce the incidence of critical care failures during childbirth [4].

In recent years, educational initiatives and interprofessional training programs have been developed to cultivate collaborative practices among obstetricians, nurses, and midwives. These programs emphasize mutual respect, shared decision-making, and effective communication—elements that are essential for fostering a positive work environment. However, there is still considerable room for improvement in terms of understanding roles, responsibilities, and the significance of each profession in critical case scenarios. This underscores the need for comprehensive training that includes simulation exercises and team-building activities designed explicitly for obstetric emergency situations [5].

In exploring the collaboration between obstetricians, women's nursing, and midwifery, this research aims to contribute to the body of knowledge surrounding safe childbirth practices, particularly in high-risk cases. By examining existing interdisciplinary models, identifying barriers to effective collaboration, and proposing strategies to enhance teamwork among these essential healthcare providers, this study hopes to inform policies and practice guidelines that can improve outcomes for mothers and their infants. It is through understanding and optimizing the contributions of each professional in the operating room that healthcare systems can better prepare for and respond to the critical situations that arise in obstetric care, ultimately ensuring continuity of care and enhanced patient safety [6].

### **Roles and Responsibilities of Obstetricians, Nurses, and Midwives:**

The journey of pregnancy and childbirth is one of the most significant experiences in a woman's life, often marked with a multitude of emotions ranging from joy to anxiety. This complex process involves not just the expectant mother but also a dedicated team of healthcare professionals, primarily obstetricians, nurses, and midwives. Each plays a distinct yet overlapping role in providing care and

support to mothers and their families throughout the perinatal period, ensuring that both mother and baby have the best possible outcomes.

Obstetricians are medical doctors specializing in obstetrics, which is the field of medicine that deals with pregnancy, childbirth, and the postpartum period. Their extensive training involves years of medical school followed by residency programs that focus solely on obstetric and gynecological care [6].

### Responsibilities of Obstetricians

1. **Medical Assessment and Diagnosis:** One of the primary responsibilities of obstetricians is to assess the health of the pregnant woman and the developing fetus. This includes performing physical examinations, ordering laboratory tests, and interpreting ultrasounds. They monitor the progression of the pregnancy and identify any potential complications that could arise [7].
2. **Management of Pregnancy Complications:** Obstetricians are trained to handle various complications that may occur during pregnancy, such as gestational diabetes, preeclampsia, and premature labor. They work to ensure both the mother and baby have optimal conditions for delivery, which may involve recommending specific treatments or interventions.
3. **Labor and Delivery:** During labor and delivery, obstetricians play a central role in managing the birthing process. They are responsible for delivering the baby, managing any risks that arise during labor, and performing any necessary medical procedures, such as cesarean sections or episiotomies [7].
4. **Postpartum Care:** After delivery, obstetricians are responsible for the initial care of the mother and baby. They monitor recovery, provide guidance on breastfeeding, and manage postpartum complications while addressing the emotional and psychological needs of the new mother.

5. **Patient Education and Counseling:** An important part of an obstetrician's role is patient education. They inform expectant mothers about the choices they have regarding their prenatal care, labor, and delivery plans, and help them navigate any decisions related to their pregnancy [7].

### Nurses: The Critical Care Providers

Nurses play a vital role in providing holistic care during pregnancy and childbirth. Their responsibilities span across all aspects of maternal and infant health, and they often serve as the primary point of contact for patients in various healthcare settings, including hospitals, clinics, and community health centers [8].

### Responsibilities of Nurses

1. **Monitoring Maternal and Fetal Health:** Nurses routinely monitor the vital signs of pregnant women and assess fetal heart rates and movements to ensure the health of both mother and baby. They are trained to recognize signs of distress and to act swiftly in emergency situations [8].
2. **Assisting in Labor and Delivery:** In labor and delivery, nurses are essential in supporting the obstetrician and providing direct care to the laboring woman. They offer comfort measures, including pain relief, and assist with various monitoring devices to evaluate the status of both mother and child.
3. **Patient Education and Advocacy:** Nurses educate expectant mothers about prenatal care, labor options, and newborn care. They advocate for patients, ensuring their needs and preferences are communicated to the rest of the healthcare team [8].
4. **Postpartum Care and Support:** The role of nurses continues after childbirth, where they provide critical support and education on breastfeeding, infant care, and self-care for the new mother. They help address physical and emotional health issues that may arise, promoting overall well-being.

5. **Collaboration with Healthcare Team:** Nurses work closely with obstetricians and midwives to coordinate care. Their observations and insights during patient interactions are invaluable for shaping and adapting care plans [8].

### Midwives: The Holistic Care Givers

Midwives are trained professionals who provide care to women during pregnancy, labor, and the postpartum period. They may hold a degree in nursing and specialize in midwifery or be trained through direct-entry midwifery programs [9].

### Responsibilities of Midwives

1. **Prenatal Care:** Midwives often provide comprehensive prenatal care, including regular check-ups, screening for potential health issues, and offering nutritional and lifestyle counseling. They develop trusting relationships with their patients, which can foster a supportive environment throughout pregnancy [9].
2. **Labor and Delivery Management:** Midwives are skilled in managing labor and delivery, particularly in low-risk pregnancies. They are trained to support natural childbirth, offering pain management techniques and emotional support while ensuring a safe delivery.
3. **Postpartum Care and Breastfeeding Support:** After childbirth, midwives offer guidance on breastfeeding, recovery, and infant care. They provide emotional support to mothers during the postpartum period, which is crucial in helping them transition into their new roles as parents [9].
4. **Community Education and Outreach:** Midwives often engage in community education about maternal health, reproductive education, and family health. They may provide classes and resources for expectant parents.
5. **Collaborative Care:** Midwives work alongside obstetricians and nurses as part of a collaborative healthcare team. They refer patients to obstetricians when

complications arise, ensuring that the mother receives the appropriate level of care [9].

### Collaborative Care: A Team Approach

The roles of obstetricians, nurses, and midwives intersect and complement one another, ensuring comprehensive care tailored to the varied needs of pregnant women and their families. The collaborative approach fosters an environment where each professional's expertise is valued, enabling the healthcare team to address the multifaceted challenges of pregnancy and childbirth effectively. Effective communication, mutual respect, and teamwork are vital components of this collaboration, and they culminate in enhanced patient experiences and improved health outcomes [10].

### Importance of Interdisciplinary Communication in Critical Situations:

Interprofessional communication (IPC) is a critical component of healthcare delivery, particularly in high-stakes environments such as gynecology. The dynamics between gynecologists and nursing professionals form a cornerstone of effective patient care, especially during critical situations that require rapid decision-making and collaborative action [10].

In gynecology, practitioners frequently encounter patients facing complex medical issues, including obstetric emergencies, ectopic pregnancies, and severe gynecologic conditions. These situations necessitate not just medical expertise but also timely and transparent communication between all members of the healthcare team. Effective IPC ensures that all professionals—gynecologists, nurses, anesthesiologists, and other specialists—are on the same page regarding the patient's condition, treatment options, and the immediate steps required for intervention [11].

One of the most critical aspects of IPC in gynecology is its contribution to patient safety. In high-pressure scenarios, miscommunication can lead to medication errors, delayed treatments, or improper assessments, which may have catastrophic consequences. For instance, in cases where a patient suffers from hemorrhaging during childbirth, timely and accurate communication between the nurse and gynecologist is vital. The nurse may have specific

insights into the patient's vital signs and overall condition that the gynecologist would need to make informed decisions quickly. Thus, fostering an environment where open channels of communication exist can directly impact patient outcomes [12].

Interprofessional collaboration encourages a more holistic approach to patient care. Gynecologists bring specialized clinical knowledge regarding reproductive health, while nurses possess crucial information about patient history and emotional context. When these professionals engage in a continuous dialogue, they can develop a more comprehensive treatment plan tailored to the unique needs of each patient. For example, a patient with a complex obstetric history may require alternative pain management strategies during labor. A nurse's understanding of a patient's previous experiences can inform a gynecologist's approach, optimizing overall care and enhancing the patient's experience [13].

The complexity of gynecological cases often necessitates the involvement of multidisciplinary teams, including social workers, dietitians, and mental health professionals. When gynecologists and nursing staff engage in clear and effective communication, they foster a cohesive working relationship that promotes teamwork and shared goals. Such cohesion not only improves workflows but also contributes to a positive work environment, thereby enhancing job satisfaction and reducing burnout—a common issue in healthcare.

Despite the obvious benefits of IPC, various barriers can inhibit successful collaboration between gynecologists and nursing professionals. Understanding these barriers is crucial for developing strategies to overcome them [14].

The healthcare industry has long been characterized by hierarchical structures that can stifle open communication. In many cases, nurses may feel hesitant to voice their concerns or suggestions in the presence of physicians, fearing reprisal or dismissal. This imbalance can lead to important information being overlooked during critical situations. Addressing these hierarchical dynamics through training programs that promote egalitarian communication can empower nursing staff to engage more actively in the decision-making processes [14].

Healthcare professionals often utilize specialized jargon that can create barriers to understanding among team members. While gynecologists may use specific medical language when discussing clinical conditions or treatment protocols, nursing staff may rely on more patient-centered language focused on care and well-being. This difference in terminology can result in misunderstandings that jeopardize patient safety. Educational initiatives focused on shared language and cross-disciplinary training can help bridge these gaps and facilitate clearer communication.

The demands of healthcare delivery frequently impose time constraints that hinder effective communication. In critical situations, healthcare providers may feel rushed to act, leading to hurried conversations that lack crucial detail. Nurses might have to juggle multiple patients at once, which can further detract from their ability to engage thoroughly with gynecologists. Strategies to streamline communication, such as regular interdisciplinary team huddles or dedicated time for case discussions, can mitigate the adverse effects of time pressures [15].

To enhance interprofessional communication in gynecological settings, healthcare institutions must adopt strategic approaches that prioritize collaboration and transparency.

Implementing structured communication tools, such as SBAR (Situation, Background, Assessment, Recommendation), can standardize the way information is exchanged between gynecologists and nursing staff. Utilizing these tools encourages clear, concise communication and ensures that critical details are conveyed effectively during handoffs or transitions in care.

Institutions should invest in interprofessional education programs aimed at fostering collaboration among healthcare professionals. Such training can improve mutual understanding of each discipline's roles, responsibilities, and contributions, thereby cultivating a culture of respect and collaboration.

Establishing feedback mechanisms allows healthcare professionals to reflect on their communication practices actively. Regular debriefing sessions can provide opportunities for nurses and gynecologists to discuss what went well and what could be improved during critical

situations, thereby fostering a culture of continuous improvement [15].

### **Challenges in Collaborative Practices within the Operating Room:**

The realm of obstetric surgery embodies one of the most intricate and high-stakes environments in modern medicine. Operating rooms (OR) that handle obstetric cases are not only high-pressure zones but also settings that demand a high level of collaboration among various healthcare professionals. Obstetric surgeries, which may include procedures such as cesarean sections, hysterectomies, and repairing pelvic floor disorders, require the seamless collaboration of obstetricians, anesthesiologists, nurses, surgical technicians, and in some cases, neonatologists. Despite the importance of collaborative practices in ensuring optimal patient outcomes and efficient surgical processes, a myriad of challenges persists that complicates these interactions [16].

One of the most significant challenges to collaboration in the obstetric operating room is the entrenched hierarchical structure within healthcare teams. Traditionally, medical hierarchies prioritize authority based on training levels, which can inadvertently stifle communication and reduce collaborative efforts. In many cases, the obstetrician emerges as the dominant figure in the OR, leading surgical procedures while other team members, such as nurses and anesthesiologists, may feel discouraged from voicing concerns or suggestions [16].

This hierarchy can create an environment where essential information may not be shared effectively, potentially jeopardizing patient safety. For instance, a surgical nurse may observe a concern regarding aseptic technique or instrument readiness but may hesitate to interrupt the lead surgeon due to fear of reprisal or being perceived as overstepping. Such communication barriers can hinder team cohesion and lead to an environment of distrust, impacting the collaborative dynamics necessary for effective obstetric care.

Variability in training and expertise among different professionals in the operating room is another challenge to collaborative practices in obstetrics. Each member of the surgical team brings a unique set of skills and experiences to the table. For

example, while the obstetrician is primarily concerned with the surgical procedure and maternal outcomes, anesthesiologists focus on patient stability through anesthesia management. Otherwise skilled team members may be unfamiliar with specific instruments, surgical techniques, or even the nuances of obstetric care, leading to inefficiencies during procedures [17].

Moreover, the discrepancy in training levels can result in misunderstandings about each professional's role and responsibilities. For instance, a novice surgical technician might be inexperienced with rapid response protocols during obstetric emergencies, while a seasoned obstetrician may have diminished patience for delays stemming from a lack of preparedness. This variability can, therefore, challenge harmonious collaboration, potentially compromising not only the surgical outcomes but also the learning environment for less experienced personnel [18].

The operating room environment in obstetrics is often characterized by long hours, high-stress conditions, and an unpredictable workload. Healthcare professionals are routinely required to make critical decisions that impact patient safety and outcomes. Consequently, fatigue and burnout have become prevalent in this high-stakes field, directly influencing collaborative practices.

When healthcare professionals experience burnout, their capacities for effective communication and teamwork deteriorate. Emotions run high, and stress levels can escalate in challenging surgical scenarios. Individuals may become irritable or disengaged, leading to a breakdown in team dynamics, reduced cooperation, and heightened tension among team members. This negatively affects the overall atmosphere of the surgical environment, potentially leading to reduced efficiency in procedures and increasing the risk of avoidable errors [18].

Integrating diverse cultural backgrounds can enrich a workplace, but it also poses challenges, particularly in an operating room setting. Obstetric teams are increasingly composed of professionals from various cultural backgrounds, creating a rich tapestry of perspectives and experiences. However, differences in communication styles, conflict resolution approaches, and expectations can result in misunderstandings and friction among team members.

For instance, healthcare professionals from hierarchical cultures might expect leaders to take directive roles, while those from egalitarian backgrounds may advocate for shared decision-making processes. Explore this cultural dynamic demands both awareness and adaptability, as teams must find ways to bridge these differences while ensuring that patient care remains consistent and focused. Ignoring these cultural dimensions can lead to miscommunication, impede collaboration, and hinder the delivery of care [19].

The increasing use of technology in the obstetric operating room, while markedly benefiting patient care, also presents challenges to collaborative practices. Technological solutions such as surgical robots, advanced imaging technology, and electronic health records are reshaping the landscape of surgical practice. However, the integration of these tools requires significant training and familiarity, often disproportionately impacting the collaborative efforts within the OR.

Not all team members may be equally adept at using technology, leading to a division of competence and confidence. In some cases, the introduction of new technologies can exacerbate existing hierarchies, as tech-savvy individuals may inadvertently become gatekeepers of information, further alienating those who struggle to adapt. As collaborative practices rely heavily on coordinated efforts and shared knowledge, these technology-driven disparities can disturb team dynamics and limit effective communication [19].

Recognizing the various challenges to collaborative practices in the obstetric operating room is the first step towards fostering a more collaborative environment. Several strategies can be employed to mitigate these challenges and enhance teamwork.

First, creating a culture of open communication is essential. Encouraging all team members to voice their concerns, suggestions, and observations can help dissipate hierarchies within the OR. Regular debriefings and team huddles can also serve as platforms for discussion, where individuals can voice their experiences and propose improvements in workflows [20].

Next, investing in team training that focuses on interprofessional collaboration can significantly enhance team dynamics. Workshops that simulate

obstetric scenarios, allowing team members to practice their roles together, can improve both shared mental models and situational awareness.

Furthermore, integrating mentorship programs where seasoned professionals guide less-experienced staff can bridge the knowledge and experience gap, promoting inclusivity and confidence in collaborative practices.

Finally, attention must be paid to staff well-being, as reducing burnout significantly benefits collaborative practices. Promoting work-life balance, including adequate rest periods, mental health support, and flexible scheduling, can help create a more engaged and resilient surgical team [20].

### **Strategies for Enhancing Teamwork and Coordination:**

Effective teamwork and coordination are essential components in the field of obstetrics, where the stakes are particularly high due to the complexities surrounding maternal and fetal health. As the medical landscape evolves, demands increase on healthcare professionals to work collaboratively to ensure optimal outcomes for expectant mothers and their newborns. The integration of healthcare providers from various disciplines—such as obstetricians, midwives, nurses, anesthesiologists, and pediatricians—requires deliberate strategies to enhance teamwork and coordination [21].

One of the foremost strategies to enhance teamwork in obstetrics is through interdisciplinary team training. This involves structured, simulation-based training sessions where professionals from different disciplines engage in practice scenarios that mimic real-life obstetric situations. These training exercises can help improve communication, clarify roles and responsibilities, and foster mutual respect among healthcare providers. According to studies conducted in various clinical settings, interdisciplinary training has been shown to reduce errors and improve patient outcomes by enhancing the capability of teams to function cohesively during emergencies, such as obstetric hemorrhage or fetal distress [21].

Effective communication is the linchpin of successful teamwork in obstetrics. Establishing clear communication protocols allows healthcare providers to share critical information about patient

care efficiently. Strategies can include standardizing handoff procedures during shift changes, utilizing checklists during patient evaluations, and employing tools like SBAR (Situation, Background, Assessment, Recommendation) for structured communication. Regular multidisciplinary meetings can also provide a platform for team members to voice concerns, share insights, and update one another on patient progress, ultimately aligning everyone around shared goals [22].

In today's digital age, technology plays a pivotal role in enhancing teamwork and coordination. The implementation of Electronic Health Records (EHR) allows for real-time data sharing among healthcare team members. This can lead to better decision-making as all parties involved have access to the same, up-to-date patient information. Furthermore, telemedicine can facilitate prompt consultations with specialists in obstetric care, particularly in rural areas where access to certain services may be limited. Communication apps and platforms can also enhance day-to-day coordination among team members, enabling quicker responses to patient needs [23].

Leadership styles can significantly influence team dynamics. Transitioning from traditional hierarchical models to more collaborative leadership structures can foster a more inclusive and cohesive team environment in obstetrics. In this model, leaders emphasize shared decision-making, support team members' contributions, and encourage open dialogue. Empowering team members to take ownership of their roles and collaborate in critical thinking can enhance engagement and accountability. Additionally, leaders should actively promote a culture of respect and recognition, acknowledging the unique skills each member of the team brings to patient care [24].

To ensure optimal efficiency within the team, it is essential for each member to have a clear understanding of their roles and scope of practice. Muddled responsibilities can lead to confusion, reduced morale, and compromised patient safety. Regular workshops and training sessions can help delineate the various roles within the obstetric team and clarify how each member contributes to patient care. By establishing clear expectations and accountability, teams can work more effectively towards shared patient outcomes.

Creating a culture that promotes trust, support, and shared values is paramount in enhancing teamwork in obstetrics. Positive team culture can be nourished through team-building exercises and social interactions outside of the clinical setting. Encouraging team members to share personal and professional milestones fosters stronger relationships and promotes a sense of belonging, reducing stress and burnout. Leadership should also model positive behaviors and encourage conflict resolution strategies to address potential issues that may disrupt team cohesion [25].

In any dynamic work environment, particularly obstetrics, continuous feedback is crucial for growth and improvement. Regular performance evaluations that incorporate peer feedback can develop a culture of accountability and continuous improvement. Facilitating debriefing sessions following challenging cases can provide valuable insights and lessons learned, focusing on what went well and areas for development. Furthermore, integrating patient feedback into these discussions can help teams understand the impact of their collaboration on patient satisfaction and outcomes [26].

Diversity within the healthcare team can enhance problem-solving and promote innovative approaches to clinical care. Obstetric teams should strive to reflect the diverse populations they serve, ensuring that a variety of perspectives inform patient care practices. Encouraging inclusivity, respecting individual contributions, and providing equal opportunities for professional development can help strengthen teamwork. Embracing diversity in teams is not only beneficial for the workforce but also enhances the quality of care provided to patients by addressing their unique cultural, social, and healthcare needs [27].

### **Case Studies: Successful Collaborative Interventions:**

The healthcare landscape has increasingly embraced collaborative care models, particularly in high-stakes environments such as the operating room. In obstetrics and gynecology, the synergy between obstetricians, gynecologists, midwives, and other healthcare professionals is essential for optimizing maternal and fetal outcomes [28].



## understanding the Roles

Before delving into specific case studies, it is pivotal to clarify the distinct yet complementary roles of obstetricians, gynecologists, and midwives. Obstetricians are specialized in the care of pregnant women and the management of childbirth, particularly concerning high-risk scenarios requiring surgical intervention, such as cesarean deliveries. Gynecologists focus on the female reproductive system, addressing various medical and surgical issues unrelated to childbirth. Midwives, often positioned as primary care providers during low-risk pregnancies, bring a holistic approach to maternal care, emphasizing education, support, and emotional well-being [29].

The collaborative interplay among these professions can enhance patient experiences and improve clinical outcomes, especially in a dynamic setting like the operating room [29].

### Case Study 1: Collaborative Care in Cesarean Deliveries

A prominent example of successful collaboration can be drawn from a maternity ward in a regional hospital. In this case, a 30-year-old woman, Jane, presented with complications necessitating an emergency cesarean section. The obstetrician, Dr. Smith, and her team were made aware of Jane's history of gestational diabetes, which highlighted the need for meticulous monitoring of both mother and infant during and after the surgical procedure [30].

Before the operation commenced, midwife Lisa provided comprehensive contextual insights about Jane's fears and preferences regarding anesthesia and immediate post-operative care. This information was crucial in tailoring the anesthesia plan and in designing a post-operative support strategy that emphasized skin-to-skin contact with the newborn.

During the cesarean delivery, the midwife assisted the obstetric team in maintaining the maternal focus and addressing Jane's emotional needs. The presence of the midwife not only increased Jane's sense of security but also facilitated effective communication between the surgical team and the patient. The coordinated efforts helped minimize anxiety and resulted in a smoother recovery process for both mother and baby.

This case illustrates that when obstetricians and midwives work collaboratively in the operating room, patient-centered care is prioritized, which can lead to enhanced outcomes and satisfaction [30].

### Case Study 2: Managing Complex Gynecological Surgeries

In another instance, a gynecological oncology team at a tertiary referral center exemplified effective collaboration during a complex hysterectomy for a patient diagnosed with invasive cervical cancer. The patient, Maria, was 45 years old and presented with a high degree of anxiety regarding both the surgery and her prognosis [31].

In preparation for the procedure, the gynecologist, Dr. Lee, brought midwife Sarah into the clinical discussions to provide emotional and psychological support. Prior to surgery, the midwife met with Maria to establish rapport and clarify her fears surrounding the procedure, including concerns about post-operative recovery and potential impacts on her fertility [31].

On the day of the surgery, the operating room team, which included anesthesiologists and nurses, had a pre-operative briefing that stressed the importance of a supportive environment. The midwife participated in meetings to ensure that Maria's preferences and emotional needs were recorded and respected throughout the surgery [32].

The operation itself was intricate, requiring several hours and the need for specialized surgical equipment. Throughout the process, midwife Sarah played a crucial role in keeping Maria's partner informed, advocating for patient-centered communication during the surgery, and ensuring that the emotional support continued even as the technical procedures unfolded.

Upon completion, midwife Sarah was instrumental in guiding Maria through initial recovery phases with a focus on post-operative care instructions and emotional support. The seamless collaboration across disciplines notably improved patient satisfaction and fostered a holistic approach to care, which highlighted the positive impacts of integrated teamwork in challenging surgical scenarios [32].

### **Case Study 3: Multidisciplinary Teams and Decision-Making in Perinatal Care**

A model of collaborative effort was vividly displayed at a large academic hospital, where obstetricians, gynecologists, midwives, and pediatricians formed a multidisciplinary team to manage a high-risk pregnancy involving a patient diagnosed with preeclampsia. The team drew together their expertise to craft an individualized plan for prenatal management and delivery.

In this scenario, the obstetrician, Dr. Thompson, worked closely with midwife Emily and neonatologist Dr. Jordan in a series of meetings to prepare for potential complications associated with early delivery. During these discussions, midwife Emily provided insights from her interactions with the patient, who expressed desires for a vaginal delivery despite the risks. This information was vital as the medical team deliberated optimal timing for induction versus the patient's rights and preferences [33].

After extensive discussions, the multidisciplinary team decided on a receptive approach to monitor the patient closely while maintaining her involvement in decision-making. This included regular assessments and clinical visits that integrated midwifery care and holistic support leading up to the delivery.

As the delivery approached, the communication between the obstetrician, midwife, and pediatric team remained robust and fluid. When labor began, midwife Emily facilitated immediate skin-to-skin contact that enhanced bonding while effectively managing the birthing process. In the end, the collaboration resulted in a successful vaginal delivery, followed by prompt interventions from the pediatric team to address neonatal concerns without undermining the mother's autonomy and wishes [33].

### **The Impact of Collaboration on Maternal and Neonatal Outcomes:**

Collaboration in health care settings is an essential component that significantly enhances the outcomes associated with maternal and neonatal care. As the complexities surrounding pregnancy and childbirth grow, professionals within the healthcare system must adopt a team-oriented approach to provide optimal care for mothers and their newborns [33].

### **Understanding Maternal and Neonatal Outcomes**

The terms "maternal outcomes" and "neonatal outcomes" broadly refer to the health statuses of mothers and their infants, respectively, during and after pregnancy. Maternal outcomes encompass a range of factors, including maternal mortality rates, incidence of pregnancy complications (such as preeclampsia, postpartum hemorrhage, or infections), and mental health issues post-delivery. Neonatal outcomes reflect the health of infants right after birth and include factors such as neonatal mortality rates, the incidence of low birth weight, and the prevalence of congenital anomalies [34].

Effective collaboration in healthcare influences these outcomes significantly. In an environment where healthcare professionals, including obstetricians, midwives, nurses, pediatricians, and mental health specialists, work cohesively, mothers and infants are more likely to receive timely and comprehensive care tailored to their unique needs. This collaborative practice approach is becoming increasingly recognized as essential for enhancing quality care standards in maternal and neonatal health domains [34].

### **Benefits of Collaboration in Maternal and Neonatal Care**

- 1. Enhanced Communication:** Collaboration fosters open channels of communication between healthcare providers. Improved communication ensures that all team members are aware of a patient's history, existing health conditions, and any interventions that have occurred. This coordinated approach diminishes the chances of miscommunication, which could lead to medical errors that compromise maternal and neonatal safety [35].
- 2. Comprehensive Care Plans:** When various specialties work together, they can develop multi-dimensional care plans that address the physiological, psychological, and social aspects of maternal and neonatal health. For example, a pregnant woman experiencing high-risk factors like diabetes or hypertension may benefit from the collaborative input of an obstetrician, a

nutritionist, and a mental health professional. This integrated approach can enhance outcomes by addressing multiple risk factors simultaneously [35].

3. **Timely Identification and Management of Complications:** Collaborative practices allow for better monitoring and timely interventions in maternal and neonatal health. Through joint rounds and shared electronic health records, teams can quickly identify complications stemming from pregnancy or labor and respond proactively. Quick access to diverse perspectives can lead to innovative solutions to emerging problems, resulting in improved outcomes [36].
4. **Continuity of Care:** Collaboration supports seamless transitions across care settings, ensuring that mothers and their newborns continue to receive consistent care throughout their maternal journey—from prenatal visits through delivery and postnatal care. This continuity is vital in monitoring both physical and mental health after childbirth, contributing to positive outcomes for mothers and neonates alike.
5. **Education and Empowerment:** Collaborative teams often integrate patient education into their care protocols, empowering mothers with essential knowledge about their health and that of their newborns. Educated patients are more likely to engage in their treatment plans and make informed decisions, leading to better adherence to recommended practices that enhance their health and that of their babies [36].

### Barriers to Effective Collaboration

Despite the clear benefits of collaboration in maternal and neonatal care, several barriers hinder its successful implementation:

1. **Professional Silos:** Many healthcare systems still operate within traditional hierarchies that can encourage professional silos rather than collaboration. When practitioners regard one another as separate entities operating towards individual goals,

collective efforts tend to suffer. This division can hinder communication, compromise care coordination, and ultimately impact outcomes negatively [37].

2. **Lack of Interdisciplinary Training:** Many educational programs for healthcare providers focus on discipline-specific training, leading to a lack of understanding of other professions' roles in the collaborative care process. Without education that encourages collaboration, professionals may lack essential skills for interprofessional teamwork, including communication and negotiation skills [37].
3. **Resource Limitations:** In many healthcare settings, particularly in low-resource environments, constraints such as insufficient staffing, limited facilities, and inadequate funding can deter collaboration. Healthcare professionals may be preoccupied with immediate concerns, leaving little opportunity to pursue collaborative practices.
4. **Cultural Barriers:** Differences in professional cultures can also obstruct effective collaboration. Varied disciplinary norms, communication styles, and value systems may lead to misunderstandings or conflict within healthcare teams, impeding their ability to work cohesively [38].

### Recommendations for Enhancing Collaboration

To maximize the positive impacts of collaboration on maternal and neonatal outcomes, several strategic recommendations can be implemented:

1. **Interprofessional Education:** Healthcare institutions and academic programs should prioritize interprofessional education as part of their curricula, encouraging a holistic understanding of various healthcare roles. Training should focus on team-based care skills, communication, and conflict resolution, essential for successful collaboration [39].
2. **Team-Based Care Models:** Implementing structured team-based care models within healthcare systems can facilitate

collaboration. Creating interdisciplinary teams with defined roles allows for coordinated care delivery and shared decision-making, enhancing care quality.

3. **Use of Technology:** Leveraging technology, including shared electronic health records, telemedicine, and communication platforms, aids in improving information sharing and transparency among collaborative teams. These tools can bridge geographical barriers and promote synergy in patient care [39].
4. **Encouraging a Culture of Collaboration:** Healthcare leaders should promote a culture of teamwork and mutual respect within their organizations. Initiatives that recognize and reward collaborative practices can foster an environment conducive to interprofessional partnership.
5. **Addressing Resource Needs:** Policymakers should assess and allocate necessary resources to support collaborative practices. Adequate staffing, training opportunities, and funding are integral to cultivating a collaborative culture in maternal and neonatal health settings [40].

### **Future Directions for Improving Collaborative Practices in Obstetric Care:**

The field of obstetrics is continuously evolving, propelled by advancements in medical technology, a growing understanding of maternal health, and an increasing necessity for patient-centered care. As health care practices shift towards collaborative models, it becomes imperative to explore future directions for improving collaborative practices in obstetric care. Effective collaboration among healthcare professionals—such as obstetricians, midwives, nurses, and specialists—can enhance patient outcomes, minimize complications, and promote holistic maternal and infant health [41].

At the heart of effective collaborative obstetric practices lies interdisciplinary teamwork. Future advancements in this area will require a reevaluation of existing teamwork structures, encouraging health professionals to work more closely together.

Hospitals and clinics must adopt a model that supports regular, structured communication between team members and promotes mutual respect among different professional disciplines.

To enhance interdisciplinary teamwork, healthcare institutions can implement joint training sessions that foster team-building and emphasize the importance of different roles within the obstetric care paradigm. Furthermore, establishing standardized collaboration protocols can streamline workflows and reduce discretion regarding responsibilities, thereby ensuring that all professionals understand their roles in various scenarios. Closing the gap between obstetricians, midwives, and nursing staff will facilitate consensus on care decisions, promoting a unified approach to maternal health challenges [42].

With the rapid growth of healthcare technology, the future of collaborative obstetric practices is intricately linked to digital innovations. Telemedicine, electronic health records (EHRs), and mobile health applications have revolutionized the way maternal care is delivered. Future developments could leverage artificial intelligence (AI) and machine learning in predicting patient outcomes and refining risk assessments through data analysis [42].

Telemedicine offers a space for real-time consultation between healthcare professionals, enabling obstetricians and midwives to communicate effectively, particularly in remote settings. This model ensures that even patients in underserved areas have access to high-quality care. Additionally, comprehensive EHR systems that allow seamless communication can facilitate coordinated care among multiple healthcare providers, ensuring that everyone involved in a patient's care is informed about medical histories, interventions, and results [42].

Common platforms for these technologies can be created to promote interprofessional collaboration. For example, developing a centralized database for shared access to maternal health records can improve information sharing and significantly decrease redundant testing or miscommunication. Importantly, these innovations must be implemented with a focus on protecting patient privacy and security to maintain trust in collaborative healthcare efforts [43].

Investing in the training and education of healthcare professionals is essential for fostering a collaborative culture in obstetric care. Future strategies must incorporate ongoing professional development programs that emphasize the principles and practices of teamwork, communication skills, and conflict resolution. These training modules can be included in both initial educational curricula and as part of continuous professional education [44].

Additionally, simulations and role-playing scenarios that mimic real-life obstetric emergencies can reinforce the importance of collaboration. By participating in interprofessional workshops and simulation exercises, healthcare workers can practice their communication and teamwork skills in high-pressure situations, reducing the likelihood of errors during actual care delivery. Creating a culture that values learning from mistakes and promotes feedback can also build a stronger collaborative environment [45].

Engaging patients as integral members of the obstetric care team marks a significant forward step in promoting collaboration. Future practices should emphasize informed decision-making, ensuring that patients are not just passive recipients of care but active participants in their health journeys. Employing shared decision-making models, where healthcare providers and patients explore treatment options together, can greatly improve patient satisfaction, trust, and adherence to care plans [46].

To enhance patient engagement, healthcare providers can employ communicative tools such as patient portals and care management apps that allow patients to access their medical information, schedule appointments, and communicate with care teams. Furthermore, educational initiatives that empower patients to understand their health needs can bridge the gap between professional expertise and patient agency, creating a more equitable collaborative care model [47].

The foundation of effective collaborative practices in obstetric care can also be found in the regulatory and policy frameworks that govern healthcare systems. Future advancements must target the development and implementation of policies that promote collaboration as a standard practice in obstetrics. This involves fostering an environment where health systems support interprofessional

collaboration, shared resource utilization, and integrated care models [48].

Policymakers should advocate for funding initiatives that reward collaborative care efforts through outcome-based reimbursement models. Such policies could incentivize organizations to prioritize interdisciplinary teamwork and further allocate resources towards training, technology, and patient engagement strategies. Moreover, advocacy for legislation that recognizes and encourages midwifery care as an essential component of obstetric services can enhance collaborative practices within diverse care settings [49].

### **Conclusion:**

In conclusion, the collaboration between obstetricians, women's nursing staff, and midwives in the operating room is integral to effectively managing critical cases in maternal healthcare. This study highlights the importance of a multidisciplinary approach that leverages the unique skills and expertise of each profession to enhance patient outcomes during emergencies. By fostering open communication, mutual respect, and structured teamwork, healthcare providers can significantly improve their response to urgent situations, ultimately ensuring the safety and well-being of mothers and infants.

As the landscape of maternal care continues to evolve, it is essential for healthcare facilities to prioritize the establishment of collaborative frameworks and ongoing training programs. These initiatives not only promote a cohesive working environment but also empower all team members to deliver high-quality care in high-pressure contexts. Looking forward, further research and practical implementations of collaborative strategies will be vital in advancing obstetric care, reducing complications, and creating a more effective healthcare system for women and their newborns.

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