REVIEW ARTICLE

Collaborative Approaches to Enhancing Maternity Care: Interdisciplinary Management of Common and Emerging Critical Health Issues

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Abstract

Most of us would agree with the statement that pregnancy and childbirth are some of the most vulnerable phases in a woman's life and women's safety and maternity care heavily affects the maternal mortality rate and neonatal mortality rate. A well-developed caregiving system can help mother's combat challenges, such as pre-eclampsia, gestational diabetes, and the safety of medication during breastfeeding. The analysis of this study focused on the participation of healthcare professionals, including doctors, midwives, nurses, and pharmacists, with the use of technologies, such as telemedicine, and centralized communication platforms. These include role ambiguity, communication challenges, and cultural hierarchies. Interdisciplinary approaches to delivery improved maternal care. Reduced complications and better patient outcomes ensued. Centralized systems eradicated errors, while good teamwork resolved issues with safety concerning maternal immunization and breastfeeding. Professional hierarchies and workload pressures were still problems. Nurses and pharmacists played key roles in mitigating medication-related risks. Communication frameworks and mutual respect also fostered collaboration. Role definition, training programs together, and an equitable distribution of workload must be present to overcome the barriers. Interdisciplinary collaboration is important for holistic maternity care. Empowerment of the health teams by technology, training, and streamlining will help improve maternal outcomes sustainably.

Key words: Collaboration, drug safety, maternity care, nurse, pharmacist

INTRODUCTION

Most of us would agree with the statement that pregnancy and childbirth are one of the most vulnerable phases in a woman's life and women's safety and maternity care heavily affects the maternal mortality rate. Respectful maternal care is the right of every mother.[1] Sadly, maternity care remains a significant challenge in the healthcare infrastructure in India with the country accounting for 22% of global maternal deaths annually.[2] Although public health progress has increased life expectancy and fertility rates in the country,

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serious indicators, such as maternal mortality ratio (MMR) and infant mortality rate presented little progress during the 1990 decade with both saturating to around 400/100,000 live births and 60/1,000 live births, respectively.[3-5] Launched in 2005 under the National Rural Health Mission (NRHM), the Janani Suraksha Yojana aspired to reduce maternal and neonatal mortality through cash incentives and coordinated care for institutional deliveries.[6] Although the scheme has improved institutional delivery rates in underperforming states, it is unlikely to achieve ambitious targets, such as reducing MMR to 100/100,000 live births because of the persistence of the challenges in ensuring equitable and quality access to healthcare.[7] Improving quality care delivery is essential not only to reduce maternal mortality but also to regain public trust in the healthcare system and improve the sustainability of the gains achieved.

Quality of care in maternal health deals with ensuring timely access to effective and compassionate services. Disparities persist in service delivery, such as differences in outreach activities and antenatal care coverage between regions. For instance, a 10-year-old research study indicated drastically higher Auxiliary Nurse Midwife visits in Tamil Nadu and Karnataka relative to Bihar and West Bengal.[8,9] Similarly, urban areas report higher antenatal care utilization than rural areas, with 62.4% of urban women receiving World Health Organization (WHO)-recommended care compared to 27.7% in rural settings, as per NFHS-3 (2005–2006). Recent evidence from DLHS-3 (2007–2008) indicates marginal improvements in maternal care access post-NRHM, particularly in high-focus states.[10,11] Addressing these regional and urban-rural disparities, alongside emphasizing clinical and interpersonal effectiveness, is crucial to achieving the goals of reduced maternal morbidity and mortality.

It has been observed and noted that through an inter-professional collaborative approach, a reduction in maternal health issues has been reported and also the best of maternal care has been served. Such an inter-professional approach can involve all of the members of the healthcare professions, such as doctors, obstetricians, midwives, nurses, pharmacists, and nutritionists in collaboration and thus give the mothers the most holistic caregiving environment. This paper examines how interdisciplinary teamwork improves maternity care in the presence of common challenges, such as pre-eclampsia, gestational diabetes, and post-partum mental health issues, and the emerging ones, such as infections or health disparities. The paper also examines the role of technology, such as telemedicine and shared digital platforms, in improving access to care and supporting collaboration among professionals. We can develop an efficient and compassionate maternity care system by focusing on the needs of pregnant mothers and their families, thus fostering effective teamwork. This approach promises better outcomes and reduced risks while ensuring that everyone has a positive experience.

THE ROLE OF INTERDISCIPLINARY COLLABORATION IN ADDRESSING MATERNAL HEALTH CHALLENGES

Maternity care is a very complex and dynamic profession with many professionals working toward providing perfect results for both mothers and infants. One such aspect is the safe and proper use of medicines addressing health issues related to a mother either during pregnancy or in the post-partum stages. Collaboration among the care providers such as nurses, pharmacists, and physicians may optimize maternity care for individual patient needs with minimum adverse effects.[12] The collaborative approach promotes a care approach that meets not only the medical needs of the mother but also the social and emotional needs of mothers and their families. Therefore, integrated care models that are based on interdisciplinary collaboration will be key to enhancing quality in maternity care.

The World Health Organization advocates for the integration of health services that form a continuum of care and that cuts across different levels and various settings tailored to the needs of a patient.[13] Healthcare professionals, such as nurses are often in close contact with mothers and are the ones who keep track of the patient's vitals.[14] They often are the mediator between the patients and the doctors. They ensure that mothers follow and implement the pharmaceutical care plans and take all their vitals on time. They also ensure the mothers take a balanced diet. They keep a close monitor on the effect of medicine on the mothers. They also aid in educating mothers on the use of medications during pregnancy and breastfeeding.[15] Their input is essential in individualizing care according to the patient's goals, context, and preferences. Other areas of great importance involve addressing inequities in maternity care where interdisciplinary collaboration is a must.

Pharmacists on the other hand are the experts in medicines and can help to design a proper pharmaceutical care plan for the mothers. They know about contra-indications and hence, can ensure pregnant mothers have prescribed the right medicines and it's safe for both the mother and the child. Healthcare teams would, in this sense, strategize to eliminate disparities and ensure that mothers are accorded support in the health centers. Patient safety is of paramount interest when it comes to maternity care, especially in the dimension of pharmaceutical interventions.[16] Unsafe medication practices can lead to preventable harm, thus making standardized training and education for all healthcare providers involved in maternity care necessary. Being involved in the majority of patient contact hours, nurses are most adequately trained to detect and intervene in the misuse of medications. The introduction of the International Standards of Curricula on pharmacotherapy may lead nurses to become better teammates for interprofessional collaborative care.[17-19] Shared goals along with an aim for patient-centred outcomes

might see the role of interdisciplinary collaboration for quite dramatic improvements in safety and quality of care provided in the maternity setting. Figure 1 depicts a Venn diagram indicating the role of nurses and pharmacists in providing comprehensive maternal care.

NEED FOR INTER-PROFESSIONAL COLLABORATION DURING VACCINATION IN MATERNAL CARE

Maternal vaccines are very important to protect maternal health. It is noted that pregnant women and infants are more susceptible to infections and vaccinating the mothers can be an effective way to protect women against these infections. Maternal vaccination gives double protection to both the mother and her infant, protecting them from infections that are vaccine-preventable at periods of vulnerability.[20] Shielding the pregnant woman from the infection indirectly protects the fetus from all potential complications such as congenital infections and adverse outcomes. In addition to the antibody transfer through the placenta and breast milk, this protection to the infants extends into the first couple of months in their lifetime when their immunology apparatus is still developing.[21] All of these benefits illustrate why vaccinating mothers is so pertinent to public health policies for vaccination.

Nonetheless, despite the plethora of proof of the effectiveness and safety of vaccines among pregnant mothers, vaccine anxiety continues to be a significant problem. Low confidence in vaccines, compounded by issues such as the new technology platform of COVID-19 vaccines, has limited the large-scale implementation of maternal immunization programs across the globe.[22-24] Therefore, education, clear communication, and increased access need to be addressed to increase uptake. Improved maternal immunization will not only save women from infections but will also help build trust for immunization as an important health tool for mothers and children. Figure 2 depicts the maternal vaccine workflow.

Collaboration between healthcare professionals, including nurses and pharmacists, plays a crucial role in enhancing maternal vaccination efforts. Nurses are often the frontiers in caregiving and the primary point of contact between pregnant mothers and the doctors.[25] They are the ones who keep track of their daily vitals and keep a record of their health during their pregnancy. They can educate the patients regarding the safety of maternal vaccines and how they would benefit the mother and their infants. They can also help the patient to overcome their fear of vaccination and take an active part in vaccination drives.[26] On the other hand, pharmacists with their expertise in vaccine pharmacological activities and vaccine storage and vaccine management can help nurses to create a better caregiving facility for pregnant mothers. Together they can work hand in hand to help mothers overcome their vaccine hesitancy by providing them with holistic maternal care and supporting collaborations. Table 1 depicts different vaccines administered to pregnant mothers and its benefit to both mother and infant.

INTERDISCIPLINARY STRATEGIES FOR SAFE MATERNITY CARE: BREASTFEEDING, MEDICATION SAFETY, AND BEYOND

Nurses and pharmacists play important roles in equipping mothers with knowledge and skills that will ensure successful breastfeeding. They can assist the mother by training her in proper breastfeeding techniques, ensuring early initiation within the 1st h after birth, and exclusive breastfeeding for the first 6 months of life as recommended by the WHO. They should be able to teach about latching techniques, promote the

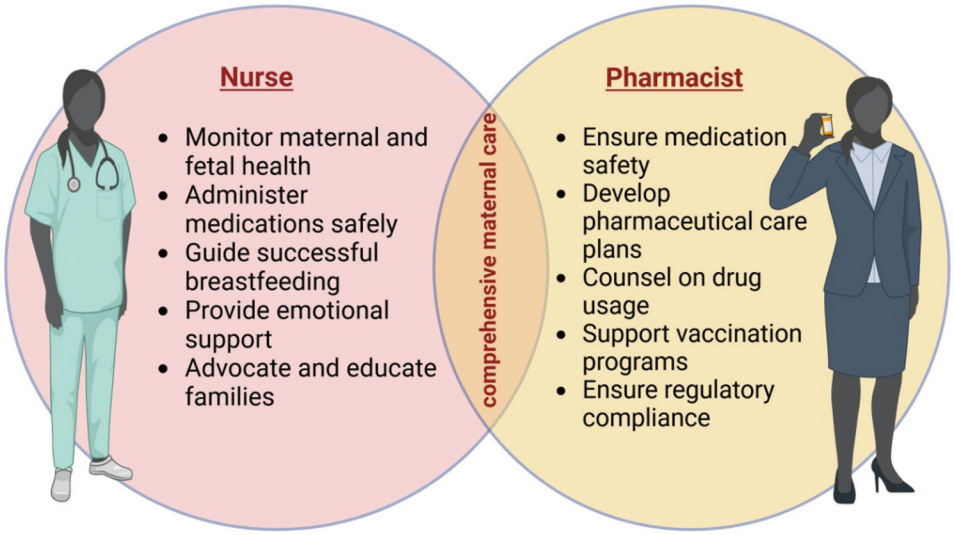

Figure 1: Venn diagram indicating the role of nurse and pharmacist in maternal care

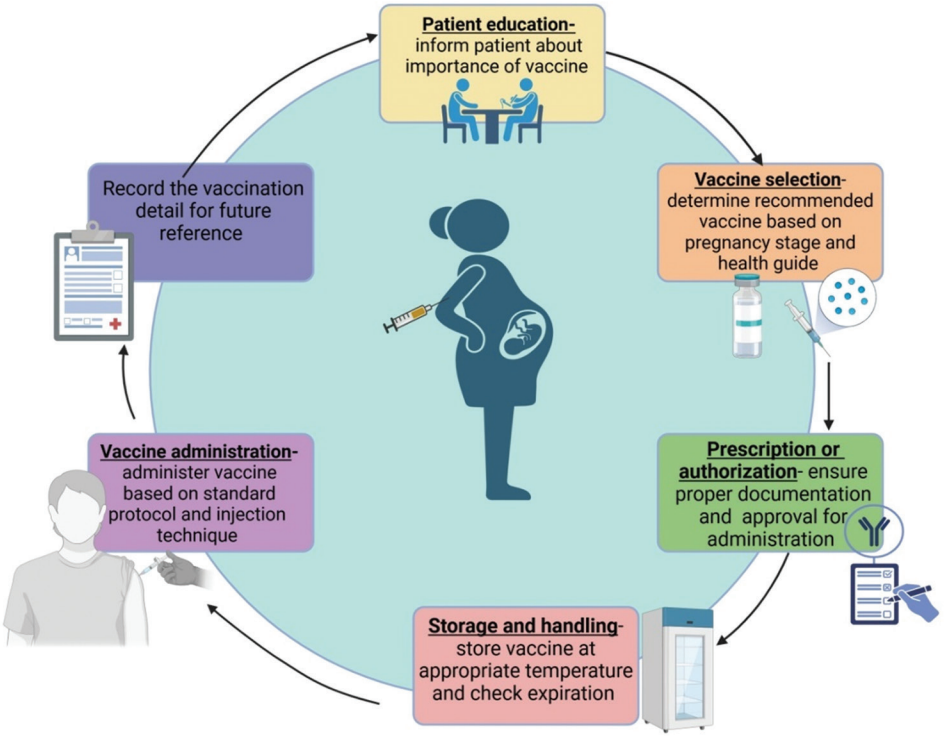

Figure 2: Maternal vaccine workflow

consumption of both foremilk and hindmilk, and educate on ways to recognize hunger in babies. Pharmacists can educate a lactating mother on using safe nutritional supplements that help support good vitamins and mineral supplies to improve the quality of her milk. Both professionals can discuss concerns of maternal nutrition, medications, or health conditions that may affect breastfeeding, and suggest alternative options in the form of safe formulas if a mother cannot breastfeed. By providing continuing support, they enable mothers to overcome any difficulties that might arise while fostering confidence in both mothers and their infants' health and well-being.

Furthermore, nurses and pharmacists can also guide mothers on the use of medicines during breastfeeding. Medication use during breastfeeding is common, with a large majority of breastfeeding mothers utilizing one or more medications to control health conditions. Passive diffusion is the primary pathway by which drugs are transferred into breast milk; however, some drug-related factors may affect the degree of transfer of medication into breast milk which includes molecular weight, lipophilicity, protein binding, and pH. Drugs with low molecular weight, high lipid solubility, weak protein binding, or a weakly basic pH are more likely to pass into breast milk. The milk-to-plasma ratio is the primary parameter required to assess drug safety in lactation; this ratio essentially estimates the drug concentration within milk relative to plasma concentrations. A value <1 indicates that there is negligible accumulation in breast milk, but values between 1 and 5 may be indicative of sequestration.[48,49] However, the poor oral bioavailability of many drugs often reduces the likelihood of systemic exposure in the infant, although mild gastrointestinal side effects, such as diarrhea or constipation may occur.

Pharmacists and nurses play an important role in reducing drug side effects among breastfeeding mothers and their babies through the provision of informed counseling on medication use. Such healthcare providers ensure that the medications chosen are based on pharmacokinetics, bioavailability, and the safety profile for both mother and child. Pharmacists, in pharmacology, are capable of evaluating the appropriateness of drugs, recommending dosage modifications, and educating breastfeeding mothers on when to take the medication and thus reduce the baby's exposure to these drugs. Similarly, nurses provide the first point of contact for many breastfeeding mothers and may therefore be the best placed in counseling mothers about safe practices with medication and lactation.[50,51] Their efforts support decision-making based on evidence and can minimize the anxiety that mothers experience when breastfeeding.

Pharmacists and nurses can work together as well to address misconceptions involving medication use while breastfeeding. Notably, there is "pump and dump," where women are unnecessarily separating a part of their breastfeeding process, thereby interrupting their normal breastfeeding cycle. This could further reduce the available milk supply and adversely affect what the baby gets. Instead, pharmacists and nurses push for evidence-based interventions that maintain safe breastfeeding without jeopardizing either maternal or infant health.[52,53] For example, they might educate mothers on

Table 1: Major vaccines administered to mothers during pregnancy and its benefit to both mother and infant

Vaccine	Type	Recommendation for pregnancy	Benefits for the mother	Benefits for the infant	Additional notes	References
Influenza	Inactivated	Recommended during any trimester of pregnancy during flu season	Protects against severe flu-related complications	Provides passive immunity for up to 6 months after birth	Live vaccines should not be used during pregnancy; the inactivated form is safe	[27]
Tdap (tetanus, diphtheria, pertussis)	Inactivated toxoid	Recommended in every pregnancy, ideally between 27–36 weeks	Prevents maternal tetanus and pertussis complications	Passes antibodies to the baby, reducing the risk of pertussis in early life	Repeat doses are safe for multiple pregnancies	[28,29]
Hepatitis B	Recombinant	Advised for unvaccinated women or those at risk, in a 3-dose schedule	Reduces the risk of maternal hepatitis and liver damage	Lowers the risk of chronic hepatitis for the baby	Safe for use during pregnancy; neonates of infected mothers also require HBIG	[30,31]
Hepatitis A	Inactivated	Recommended for women with exposure risks (e.g., travel to endemic areas)	Prevents liver infection and associated complications	Offers indirect protection through better maternal health	Limited data on use, but risks are minimal when necessary	[32,33]
Pneumococcal (PPSV23)	Polysaccharide	Recommended only for high-risk individuals, such as those with chronic illnesses	Helps prevent pneumonia, meningitis, and related infections	Maternal antibodies may provide temporary protection to the infant	Administer only when maternal risk is significant	[34-37]
Meningococcal (MPSV4)	Polysaccharide	Recommended for pregnant women with high exposure risks (e.g., outbreaks)	Protects against meningitis and bloodstream infections	Reduces the risk of exposure for the newborn	MPSV4 is safer than MCV4 for use in pregnancy	[38]
MMR (measles, mumps, rubella)	Live attenuated	Not recommended during pregnancy; administer post-partum	Prevents complications in future pregnancies caused by rubella	No immediate benefit during the present pregnancy	Test for immunity during pre-natal care; vaccinate post-partum if needed	[39-41]
Varicella	Live attenuated	Contraindicated in pregnancy; recommended after delivery if needed	Prevents complications in subsequent pregnancies	No benefit for the present pregnancy	Ensure immunity during early pregnancy checks	[42]
Rabies	Inactivated	Recommended only after exposure or for women in high-risk occupations	Protects against fatal rabies infection	Indirectly safeguards the infant through maternal health	Safe during pregnancy when needed	[43]

(*Contd*...)

Table 1: (*Continued*)

Vaccine	Type	Recommendation for pregnancy	Benefits for the mother	Benefits for the infant	Additional notes	Reference
Yellow Fever	Live attenuated	Advised only for essential travel to endemic regions	Protects against severe yellow fever complications	May reduce the chance of maternal infection and transmission	Use with caution; weigh risks and benefits carefully	[44,45]
Anthrax	Inactivated subunit	Not for routine use; recommended post-exposure with antimicrobial therapy	Prevents maternal illness following exposure	Provides indirect protection through maternal health	Pair the vaccine with 60 days of antibiotics for post-exposure prophylaxis	[46]
Group B streptococcus (GBS)	Conjugated	Not yet available; under clinical trials	Potential to reduce the risk of maternal infections	May prevent early- and late-onset GBS infections in newborns	Promising vaccine for future use.	[47]

drugs with low milk-to-plasma ratios, or they may advise an alternative drug with a better safety profile. The pharmacist can further help by doing full medication reviews during their hospitalizations or outpatient clinics to determine the potential risks of the prescribed or over-the-counter medications.

Despite their pivotal roles, barriers such as time constraints, inadequate reimbursement systems, and inconsistent identification of breastfeeding status among patients limit the ability of pharmacists and nurses to provide optimal care. Enhancing training programs on lactation pharmacology and developing streamlined protocols for identifying breastfeeding mothers in clinical settings can address these challenges. Moreover, strong interdisciplinary collaboration between pharmacists, nurses, and physicians would ensure consistent, high-quality care for the lactating mother.[53] Using their accessibility, expertise, and patient-centered approach, pharmacists and nurses could significantly reduce drug-related risks during breastfeeding and thus improve health outcomes in mothers and infants. Table 2 depicts major contraindicated drugs for breastfeeding mothers.

CHALLENGES TO INTERPROFESSIONAL COLLABORATION IN MATERNAL CARE

Even though interprofessional collaboration has proved to be one of the best ways to provide a holistic care environment for both the mothers and the newborn, it is still not implemented in its full form due to certain barriers associated with the same. One of the biggest barriers to interprofessional collaboration in maternity care is role ambiguity and overlap. When the roles are not well defined for the various health professionals involved, such as obstetricians, midwives, pharmacists, nurses, and pediatricians, confusion and conflict in the team are inevitable. Role overlap can lead to duplication of work or even the omission of key tasks, thus lowering the efficiency and quality of care rendered to mothers and babies.[90-92] Hence to avoid any confusion in the roles and to enable smooth collaboration it is important to define protocols for each professional and allow role delineation to provide clarity and accountability. Another important barrier to collaboration in maternity care is communication difficulties. Communication differences, hierarchical systems, and the lack of standardized equipment for communication create problems in sharing important information. This may further lead to confusion and ambiguity in roles. Various issues may be posed by the failure to transfer critical updates of patients or mistaken updates leading to undesirable consequences. Standardized communication frameworks, such as situation, background, assessment, recommendation (SBAR), facilitate a greater flow of information and mutual understanding. In recent times, many new software have been introduced which helps in centralizing the system. All the professionals can enter their information in centralized software where all other professionals can view the data at the same time. Hospitals employ several software systems to support communication among the professions and provide access to shared information. Most of electronic health records (EHRs), such as Epic, Cerner, Allscripts, and Meditech, allow the creation of a centralized record for patients, which different professionals can access and update simultaneously.[92,93] Real-time messaging, secure file sharing, and collaboration are supported through clinical communication platforms such as TigerConnect, Vocera, and Microsoft Teams (Healthcare Edition). Integrated Hospital Management Systems, such as Insta by Practo, Athenahealth, and eClinicalWorks, streamline the care for patients and manage hospital operations efficiently. Other tools include Amion and QGenda to optimize team scheduling. Then, platforms, such as Slack with healthcare adaptations offer

Table 2: Major contraindicated drugs during pregnancy

Category	Examples	Potential effects on infants	Risk level	Extent of breast milk transfer	Safer alternatives	References
Antineoplastic drugs	Cyclophosphamide, methotrexate	Immunosuppression, growth retardation, cytotoxicity	High	High	Avoid breastfeeding or switch to safer drugs	[54,55]
NSAIDS	Aspirin	Risk of Reye's syndrome	Moderate	Low	Acetaminophen or Ibuprofen	[56,57]
CNS Stimulant	Amphetamines	Irritability, poo feeding, tachycardia	High	Moderate	Avoid breastfeeding during treatment	[58,59]
Oral contraceptives	Combined estrogen-progestin pills	Reduced milk production, potential hormonal exposure to infant	Moderate	Moderate	Progestin-only pills, IUDs, or barrier methods	[60,61]
Immunosuppressants	Cyclosporine, tacrolimus, doxurubicin	Immune suppression, nephrotoxicity	High	High	Monitor levels closely, or avoid breastfeeding	[62,63]
Radioactive drugs	Iodine-131, Technetium-99 m	Thyroid dysfunction, radiation exposure	High	High	Temporary cessation of breastfeeding	[64,65]
Psychotropic drugs	Lithium, benzodiazepines	Sedation, hypotonia, poor feeding	High	High	SSRIs like sertraline (with monitoring)	[66,67]
Opioids	Codeine, oxycodone	Respiratory depression, sedation	High	Moderate to high	Ibuprofen, paracetamol (short-term use)	[68,69]
Antibiotics	Chloramphenicol, tetracycline	Bone marrow suppression, teeth discoloration	Moderate	Low	Penicillins, cephalosporins	[70,71]
Anticonvulsants	Phenytoin, phenobarbital	Sedation, irritability, poor feeding	Moderate	Moderate	Levetiracetam, carbamazepine (with monitoring)	[72,73]
Beta-blockers	Atenolol, acebutolol	Bradycardia, hypotension	Moderate	Moderate	Propranolol, labetalol	[74,75]
Ergot alkaloids	Ergotamine, dihydroergotamine	Nausea, vomiting, vasoconstriction	High	High	Sumatriptan (if necessary, with monitoring)	[76,77]
Retinoids	Isotretinoin	Teratogenic effects, developmental toxicity	High	High	Avoid breastfeeding entirely	[78,79]
Antihistamines	Diphenhydramine, loratadine	Sedation, irritability, potential decrease in milk supply	Moderate	Moderate	Avoid breastfeeding entirely	[80,81]
Anxiolytics	Benzodiazepines (alprazolam, diazepam, lorazepam, midazolam, prazepam, quazepam, temazepam) and perphenazine	Sedation, lethargy, feeding difficulties	Moderate	Moderate	Buspirone (short-term), monitor the infant closely	[82,83]
Corticosteroids	Prednisone, dexamethasone	Suppress growth and interfere with endogenous corticosteroid production in the infant	Moderate	Low with short-term use	Short-term use of Prednisone (low doses preferred)	[84,85]
Decongestants	Pseudoephedrine, phenylephrine	Reduced milk production, irritability	Moderate	Moderate	Saline nasal sprays, steam inhalation	[86]
Anticoagulant	Dicumarol, warfarin	Bleeding tendencies	Low	Low	Low molecular weight heparin (e.g., enoxaparin)	[87,89]

secure channels of communication. Such systems enhance the efficiency of operations, reduce errors, and enhance patient outcomes through effective interprofessional collaboration among healthcare teams.[94]

In addition, cultural and professional hierarchies also prohibit interprofessional teamwork. Each discipline has its perception, priority, and approach toward training, which sometimes may be a source of mistrust and resistance toward cooperation. For instance, midwives may prefer natural birthing methods, whereas obstetricians may prefer more medicalized approaches. This gap can only be bridged through mutual respect, interprofessional relationships, and joint training programs that develop a common vision for patient care.[95]

Workload and time pressures also increase the barriers to interprofessional collaboration in maternity care. High patient volume and understaffing do not leave much time for professionals to hold interprofessional meetings or discussions. Often, this results in fragmented care with decisions taken in isolation without considering the needs of the whole team. To counter this, healthcare organizations must invest in adequate staffing, allocate specific time for team collaboration, and make sure that the workflows are streamlined enough to reduce individual workloads.[96]

OVERCOMING OBSTACLES TO INTERPROFESSIONAL COLLABORATION IN MATERNAL CARE

There's role ambiguity and overlap in terms of maternity care among healthcare professions which demands more defined protocols with divided responsibilities for professionals, such as obstetricians, midwives, pharmacists, nurses, and pediatricians. Further tools such as RACI charts or responsible accounted for, consulted, or informed would ensure it makes their work clear and avoids duplicative work or missing some actions. Orientation programs and regular group discussions can be done by the team to understand well their roles and align well all expectations. In addition, this can create an awareness of how each role interlinks to patient care, thereby improving collaboration and reducing conflicts.[97]

Communication problems can be easily overcome by implementing standardized frameworks such as SBAR, which ensures consistent information sharing. Centralized digital platforms, such as Epic, Cerner, and TigerConnect, allow for real-time updates and seamless access to patient data across the team. Regular interprofessional meetings and team huddles will also help bridge the gaps in communication and build mutual understanding.[98] There is a need for programs on training in interpersonal skills of communication to reduce misunderstandings and ensure that each one on the team feels heard and valued when critical discussions arise.

Mitigating the effects of culture and professional hierarchy requires building mutual respect and trust among members of the team. Such programs for joint training, workshops, and rounds of interdisciplinary rounds encourage them to learn from each other's efforts while focusing their priorities on the shared vision of patient-centered care. Inclusiveness is promoted, and there is an effort to reduce the domination of a few disciplines by valuing all contributions. An open culture in which members feel empowered to voice their concerns and ideas bridges gaps in perception and approach.[99]

Adequate staffing and equitable distribution of workload will help manage workload and time pressures. Healthcare organizations must set time slots for interprofessional discussions so that decisions can be taken collectively without adding to individual burdens. Routine administrative tasks must be automated through Integrated Hospital Management Systems, such as Athenahealth and eClinicalWorks, which will help streamline workflows and reduce stress.[100,101] Ensuring staff has access to available support for non-clinical activities, plus any available time management systems to avoid pressure from workload pressures. Such resources can help professionals with available time to deliver full-scale maternity care.[102-104]

CONCLUSION

The most important factor that will enhance maternal care outcomes is interdisciplinary collaboration since it integrates obstetricians, nurses, midwives, pharmacists, and pediatricians in creating more holistic and effective care for both mothers and their infants. It addresses the clinical needs of the patient as well as emotional, social, and pharmaceutical needs making the care experience safer and more comprehensive. Despite the advantages, collaborative work in maternity care often faces barriers of role confusion, difficulty in communication, professional hierarchy, time constraints, and many more. There are ways to overcome these barriers through the clear delineation of roles, the establishment of common communication channels, education and training, and employing digital platforms to enhance the flow of information. Considerable efforts should be directed toward enhancing interdisciplinary collaboration. To further enhance the collaboration several strategies can be implemented. Strengthening interprofessional education, adopting centralized EHRs, and using centralized software where all professionals can fill in their observations will avoid any communication barrier. Furthermore, public awareness campaigns and pharmacist-led vaccination programs are necessary to increase maternal vaccination uptake. Finally, reforms in policy supporting integrated care models and allocation of funding to healing teams would optimize collaboration. Developing evidence-based practices through longitudinal studies would complete a framework for algorithmic quality improvement. This recommendation, offered in good faith, thus, could organize maternity care

systems in a short time to be more efficient, patient-centered, and sustainable, contributing to improved maternal health, reduced neonatal complications, and a safe and compassionate environment for mothers and families.

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ETHICAL DISCLOSURE

None required.

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