

## Review Article

# Midwives and Nurses Play Important Roles in Every Pregnancy

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Due to various changes, each pregnancy needs to be monitored continuously for the purpose of normal fetal development, maternal health and timely intervention in case of complications. The role of the nurse is important because when monitoring the pregnancy, the nurse cooperates with a doctor-specialist in gynecology and monitors the physical and mental condition of the pregnant woman. Quality communication between the nurse and the pregnant woman is very important in order to recognize possible complications. Midwives play a similar role because they also participate in the continuous monitoring of the course of pregnancy. Midwives provide predictable and adaptive care and give women the information and advice they need. The art of midwifery consists of sensitivity to the needs of women and families therefore the midwife must be able to meet those needs in the most appropriate way.

**Keywords:** Pregnancy; Nurses; Midwives; Childbirth

## Introduction

Obstetrics, or the care of women during childbirth, is derived from the Greek word *obstare*, which means “to keep watch” [1]. Pediatrics is a word derived from the Greek word *pais*, meaning “child”. The care of childbearing and childrearing families is a major focus of nursing practice, because to have healthy adults you must have healthy children. To have healthy children, it is important to promote the health of the childbearing woman and her family from the time before children is born until they reach adulthood. That makes both preconceptual and prenatal care essential contributions to the health of a woman and fetus and to a family’s emotional preparation for childbearing and childrearing. As children grow, families need continued health supervision and support. As children reach maturity and plan for their own families, a new cycle begins and new support becomes necessary. The nurse’s role in all these phases focuses on promoting healthy growth and development of the child and family in both health and illness.

Although the field of nursing typically divides its concerns for families during childbearing and childrearing into two separate entities, maternity care and child health care, the full scope of nursing practice in this area is not two separate entities but rather a continuum: maternal and child health nursing.

The primary goal of maternal and child health nursing care can be stated simply as the promotion and maintenance of optimal family health to ensure cycles of optimal childbearing and childrearing. The goals of maternal and child health nursing care are necessarily broad because the scope of practice (the range of services and care that may be provided by a nurse based on state requirements) is so broad. The range of practice includes:

- Preconceptual health care;
- Care of women during three trimesters of pregnancy and the puerperium (the 6 weeks after childbirth, sometimes termed the

fourth trimester of pregnancy);

- Care of infants during the perinatal period (6 weeks before conception to 6 weeks after birth);
- Care of children from birth through adolescence;
- Care in settings as varied as the birthing room, the pediatric intensive care unit, and the home.

In all settings and types of care, keeping the family at the center of care or considering the family as the primary unit of care is an essential goal. This is because the level of a family’s functioning affects the health status of its members. If a family’s level of functioning is low, the emotional, physical, and social health and potential of individuals in that family can be adversely affected. A healthy family, on the other hand, establishes an environment conducive to growth and health-promoting behaviors that sustain family members during crises. Similarly, the health of an individual and his or her ability to function strongly influence the health of family members and overall family functioning. For these reasons, a family-centered approach enables nurses to better understand individuals and their effect on others and, in turn, to provide holistic care.

## Midwives

Midwifery care has always included a public health component, although the public health role is more apparent in community-based care [2]. Provision of information around such topics as breastfeeding and women’s health is recognizably part of the health promotion role of the midwife. As a profession midwifery acknowledges childbirth as a psychological and social event rather than a purely clinical event and that optimum outcomes are the result of individual, community and organizational effort. In essence midwives have understood that childbirth and raising a family are more than just a medical event and that the outcomes depend on the mother and the family’s social and psychological circumstances as much as on the input of health professionals.

The contextual nature of childbirth has often been at odds with the organization of midwifery care within acute trusts. This has resulted in a tension between midwifery care in hospitals (which emphasizes acute interventions) and midwifery care that is community based (dealing with the larger public health agenda through giving care rooted in women and their families' everyday lives). This has led to much of the public health role of midwives beyond mere information and advice giving being tacit and unacknowledged.

Increasing numbers of midwives from Canada to Australia are questioning the need to be trained as a nurse in order to practice as a midwife [3]. They believe that nursing education supports a structural subordination to physicians and leads to a lack of decision-making power. In many of the countries where midwifery is closely linked to nursing we find movements that seek to dissociate midwifery from nursing and to increase the autonomy of midwives. In the United Kingdom, for example, decades of emphasis on nurse-midwifery have given way to a revival of interest in direct-entry education and enrollment into direct-entry programs is on the rise. In the United States, nurse-midwives, solidly grounded in nursing for the past seventy years, have created a new direct-entry educational track. The newly established form of midwifery in Ontario, Canada, resulted from an early alliance between nurse-midwives and direct-entry midwives that included agreement that nursing would not be a requirement. Midwives in the Netherlands and the home birth midwives in the United States are proud that their educational models have never mixed nursing and midwifery. It is no accident that high degrees of autonomy characterize Dutch and Canadian midwives and American home birth midwives, all of whom are direct-entry, while British midwives (most of whom are also nurses) and American nurse midwives often chafe against NHS and nursing hierarchies that subordinate them to physicians.

Childbirth is a time of intense experiences, with the potential for profound achievement, and positive transformation [4]. It is a liminal space that, for most women, only requires guardianship and support rather than intensive clinical surveillance and treatment. The midwifery professional project aligns itself, rhetorically, with childbearing women. In this narrative, what midwives do is always led by what women want and need. However, this assumption is regularly disrupted in practice. Challenges can come from neoliberal employing organizations that are focused on profit and/or on the benefits of standardization; from the constraints of shift working and of surveillance cultures that marginalize therapeutic touch and intuitive interaction; and from the modernist project that interprets the state of 'being with child' through the lens of machine imaging and computerized record keeping. In low-income countries, challenges come from extreme workloads, the need to prioritise the most acutely ill women and babies, leaving other women to labour and give birth alone, staff being underpaid (or not paid at all), long and unsafe travel distances for pregnant and labouring women, and structural and domestic power imbalances.

The social shift towards the super-valuation of technocracy is evident in the widespread use of personal devices to record and report back to us our physical and even psychological well-being. As our trust in the output of these machines increases, we perceive our own embodied sensations to be increasingly less reliable. This turn increases maternal acceptance of surveillance by machine

and monitor in pregnancy and labour, creating both physical and emotional distance between labouring women and attending midwives. Ultimately, increasing dependence by both women and midwives on technology and medical interventions in pregnancy, labour and birth is a social move that directly challenges midwifery expertise in physiological processes and outcomes, and that creates increasing distance between labouring women and midwives, raising questions about how far the midwifery philosophy can be sustained in some settings.

## Birth Injuries

Birth injuries, although declining due to improvements in obstetric care and prenatal diagnosis, remain a significant cause of neonatal morbidity and mortality and are a source of great concern for the parents, obstetricians, pediatricians, and other healthcare providers [5].

There is a wide spectrum of birth injuries that range from minor and self-limited to severe. Often injuries occur due to risk factors such as macrosomia, prematurity, forceps delivery, vacuum extraction, abnormal fetal presentation, prolonged labor, and precipitous delivery, but damage can also occur in utero before initiation of birth process and in the absence of any identifiable risk factors.

At times, signs and symptoms may not be apparent immediately after birth due to the presence of other associated clinical problems. Some injuries may become more evident at the time of or after discharge. In order to initiate appropriate treatment, it is important for clinicians to remain alert to the possibility that birth injuries may become apparent even after newborns are discharged from the hospital.

In most cases, management of soft tissue injuries requires only careful observation and follow-up. However, in other instances such as subgaleal hemorrhage, early recognition and immediate intervention is required for survival.

It is important that clinicians are able to recognize and manage birth injuries and provide appropriate counseling to parents regarding prognosis. Misdiagnosis and/or mistreatment can have significant impact on both short-term and long-term well-being of a child. Counseling of parents regarding the severity of birth injuries and associated prognosis helps in establishing expectations regarding the outcome and avoiding misunderstandings.

## Screening

Newborn screening tests are performed on infants within the first days of life to detect serious health disorders presymptomatically and prevent avoidable health problems [6]. The prototypic newborn screening test, the Guthrie test, was implemented in the mid-1960s to detect phenylketonuria, an inborn error of metabolism that was successfully treated with dietary protein restriction. After blood from a heelstick was applied to circles on a filter paper card, the dried blood spots were sent to a regional laboratory. Discs punched out from the dried blood spots inhibited bacterial growth when the phenylalanine level was elevated in the sample. This simple concept has evolved in scale and complexity to detect over 50 conditions. In the 21<sup>st</sup> century, tandem mass spectrometry (MS/MS) and related techniques have expanded newborn screening test algorithms to

detect a great number of abnormal molecules with the first- and then second-tier analysis. Hearing loss, hypothyroidism, congenital adrenal hyperplasia, hemoglobinopathies, cystic fibrosis, organic acidopathies, amino acidopathies, fatty acid oxidation disorders, and dozens of other metabolic disorders are now routinely included in newborn screening programs.

Each newborn screening test algorithm has a different sensitivity and specificity rate, designed to detect affected infants, but false-positive and false-negative results occur for all diseases that are screened. False-positive newborn screening tests for aminoacidopathies are common in premature infants and babies fed with elemental formulas or total parenteral nutrition. When retested later, after the babies are feeding regular formula by mouth, the repeat results are usually negative. However, it should never be assumed that a positive test in a premature infant is falsely positive. Always complete a repeat test when advised to do so. Similarly, a normal newborn screening test reassures but it does not guarantee that the child is unaffected. A small percentage of newborn screening tests are falsely negative.

Advances in newborn screening technology, coupled with recent advances in the diagnosis and treatment of rare but serious congenital conditions that affect newborn infants, provide increased opportunities for positively affecting the lives of children and their families [7]. These advantages also pose new challenges to primary care pediatricians, both educationally and in response to the management of affected infants. Primary care pediatricians require immediate access to clinical and diagnostic information and guidance and have a proactive role to play in supporting the performance of the newborn screening system. Primary care pediatricians must develop office policies and procedures to ensure that newborn screening is conducted and that results are transmitted to them in a timely fashion; they must also develop strategies to use should these systems fail. In addition, collaboration with local, state, and national partners is essential for promoting actions and policies that will optimize the function of the newborn screening systems and ensure that families receive the full benefit of them.

## Newborn at Risk

Advances in prenatal and neonatal medical and nursing care throughout the industrialized world have led to a marked increase in the number of newborns who have survived a high-risk pregnancy but experience acquired or congenital conditions [8]. These newborns are considered at risk: that is, they are susceptible to morbidity and mortality because of the acquired or congenital disorder.

Technological and pharmacologic advances, in conjunction with standardized policies and procedures, over the past several decades have significantly improved survival rates for at-risk newborns. However, morbidity remains an important sequela. For example, some of these newborns are at risk for continuing health problems that require long-term technological support. Other newborns remain at risk for physical and developmental problems into the school years and beyond. Providing the complex care needed to maintain the child's health and well-being will have a tremendous emotional and economic impact on the family. Nurses are challenged to provide support to mothers and their families when neonatal well-

being is threatened.

Acquired disorders typically occur at or soon after birth. They may result from problems or conditions experienced by the woman during her pregnancy or at birth, such as diabetes, maternal infection, or substance abuse, or conditions associated with labor and birth, such as prolonged rupture of membranes or fetal distress. However, there may be no identifiable cause for the disorder. Congenital disorders are disorders present at birth, usually due to some type of malformation that occurred during the antepartal period.

Congenital disorders, which typically involve a problem with inheritance, include structural anomalies (commonly referred to as birth defects), chromosomal disorders, and inborn errors of metabolism. Most congenital disorders have a complex etiology, involving many interacting genes, gene products, and social and environmental factors during organogenesis. Some alterations can be prevented or compensated for with pharmacologic, nutritional, or other types of interventions, while others cannot be changed. Only through a better understanding of the complex interplay of genetic, environmental, social, and cultural factors can these devastating and life-changing outcomes be prevented.

The physical manifestations of genetic disorders are frequently identified first in infants and children, presenting as either obvious external malformations or more occultly as inborn errors of metabolism [9]. Regardless of the type of genetic disorder diagnosed in a child, certain reactions often occur. A number of factors influence these reactions, including whether the disorder is visible, such as Down syndrome (DS), or hidden, such as congenital heart disease (CHD). Alterations in pediatric gene function frequently lead to chronic illness, affecting not only the child and parents, but siblings, grandparents, and extended family members. The ways in which the family is informed of the disorder, the supports provided, referrals made, and familial strengths influence short- and long-term coping. Genetic counseling is important for these families, including options relating to treatment, prenatal diagnosis, and reproductive options. Additional considerations for the family include anticipatory guidance, short- and long-term plans, coping with associated symptoms and conditions, insurance issues, resources, and school or work issues.

## Homeostasis

Within the body, several mechanisms exist to ensure that the internal environment remains within a narrow set of parameters, regardless of the external environment [10]. This process is called homeostasis and illness occurs when there is a disruption to this normal homeostatic control. It is often when homeostasis is disrupted that holistic nursing care is required. In order to do this well, the nurse must have a good understanding of the homeostatic mechanisms involved and how these can become impaired.

The child nurse needs to understand the physiological differences of the various age groups and how nursing interventions can help monitor, interpret and treat imbalances proactively to limit long-term damage. Since caring for the family and imparting knowledge is such an integral part of caring for the sick child, the child nurse needs to be able to help the family to understand often quite complex conditions.

## Postpartum

Most women do not experience a complication during the postpartum period, but when they do it can be life threatening and disruptive to the family unit [11]. A majority of complications occur after discharge and may require readmission to the hospital. Most hospitals do not allow the infant to be readmitted with the mother. Thus, readmission to the hospital for treatment of complications can interfere with the attachment process and increase stress within the family unit.

A focus of postpartum nursing care is to reduce women's risks for complications related to childbirth and to identify complications early for prompt interventions. The woman needs to be evaluated by her health care provider when a complication is suspected.

Hemorrhage, coagulation disorders, and infections are the primary physiological complications. Women may also experience problems later in life due to tissue and reproductive organ trauma related to the childbirth. Postpartum depression and postpartum psychosis are the main psychological complications.

## Conclusion

Childbirth is an extremely important event in human life. It has long been known that childbirth is the most exciting emotional event in a woman's life. There are many factors that affect on pregnancy and childbirth. The indispensable role of a midwife is in the first place in pregnancy and childbirth for a woman. A midwife is a person who needs to provide knowledge, advice, love, appreciation, respect. Midwifery care promotes, protects and upholds women's reproductive rights and respects ethnic and cultural diversity, maintains trust and mutual respect between midwives and families, actively encourages and protects a woman's relaxation and improves the health of the newborn child.

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