Breastfeeding and the Use of Human Milk

An official position statement of the Association of Women's Health, Obstetric and Neonatal Nurses

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Position

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) maintains that breastfeeding and the provision of expressed human milk are critical components to ensure the health and well-being of newborns, young children, and childbearing women. If a mother's own milk is not available, pasteurized donor human milk is the preferred substitute and should be offered when available and medically appropriate before supplementation with infant formula.

Background

Human milk feeding facilitates recovery from the physiological adaptations of pregnancy and birth and has been firmly established as the ideal and normative method for feeding young children, infants, and preterm and other vulnerable newborns. Human milk provides a complete source of nutrition for infants less than 6 months of age and contains an array of other substances, including hormones, stem cells, complex sugars (e.g., human milk oligosaccharides), exosomes, and nucleic acids (e.g., miRNA), whose function and utility are still being explored (Casavale et al., 2019). Researchers documented the important roles of human milk and breastfeeding in infant and childhood immune function (Le Doare et al., 2018; Victora et al., 2016), gut development and health (Ho et al., 2018), and appetite regulation (Hassiotou & Geddes, 2014). A dose-dependent effect of human milk feeding was observed whereby a longer duration of exclusive breastfeeding was associated with increased health benefits for breastfeeding women and their infants (Victora et al., 2016).

Importance of Breastfeeding for Newborns, Infants, and Children

Infants and children who were fed human milk experienced reduced mortality and morbidity (Victora et al., 2016). Human milk feeding was associated with a reduced risk of gastroenteritis, diarrheal disease, necrotizing enterocolitis, sudden infant death syndrome, childhood leukemia, otitis media, and respiratory tract infections (Bartick, Schwarz, et al., 2017; Victora et al., 2016). In terms of cardiometabolic health, breastfeeding has been associated with reduced incidence of childhood obesity (Institute of Medicine, 2011) and type 1 and type 2 diabetes (Victora et al., 2016). Some researchers linked breastfeeding to increased white (Deoni et al., 2018) and gray matter (Luby et al., 2016) brain volume in infancy and childhood, and modest improvements in cognition and neurodevelopment persist into childhood, adolescence, and adulthood (Victora et al., 2015, 2016).

Breastfeeding and the provision of human milk during medical procedures (e.g., vaccinations) provide pain relief for infants and young children (Graf et al., 2020). For infants born preterm or who require hospitalization/intensive care at birth, human milk is an essential lifesaving medical intervention (Spatz, 2018). An exclusive human milk diet in low-birth-weight infants was shown to reduce the risk of severe intraventricular hemorrhage (Carome et al., 2020); necrotizing enterocolitis, retinopathy of prematurity, bronchopulmonary dysplasia, sepsis, and mortality (Hair et al., 2016); and feeding intolerance and hopitalization costs (Assad et al., 2016). Provisions should be made to support exclusive human milk diets, especially in vulnerable newborns.

Importance of Breastfeeding for Childbearing Women

During the postpartum period, breastfeeding and milk expression may promote accelerated uterine involution and decreased blood loss associated with oxytocin surges that occur with the milk ejection reflex (i.e., let-down; Abedi et al., 2013; Kristoschek et al., 2017). Lactational amenorrhea associated with exclusive or near-exclusive breastfeeding can contribute to improved birth spacing (Van der Wijden & Manion, 2015). The catabolic process involved in producing milk is theorized to "reset" metabolic adaptations that occur in pregnancy, including accumulation of visceral fat stores, insulin resistance, and increased lipid and triglyceride levels (Stuebe & Rich-Edwards, 2009). Therefore, breastfeeding women are more likely to have accelerated weight loss after birth and reduced risk of clinical and subclinical cardiovascular disease, cardiovascular mortality, hypertension, myocardial infarctions, type II diabetes,

and metabolic syndrome (McClure et al., 2012a, 2012b; Natland Fagerhaug et al., 2013; Perrine et al., 2016). Breastfeeding has also been linked with reduced risk of breast cancer, ovarian cancer (Victora et al., 2016), and rheumatoid arthritis (Chen et al., 2015).

Benefits to Public Health

In many instances, breastfeeding saves costs for communities, government programs, employers, and families. In a cost analysis, Bartick, Schwarz, et al. (2017) estimated that the costs of suboptimal breastfeeding in 2014 in the United States totaled more than $18 billion when considering maternal and pediatric medical and non-medical costs. A greater proportion of these cost and disease burdens were incurred by non-Hispanic Black and Hispanic families, who face greater systemic barriers to breastfeeding that White families (Bartick, Jegier, et al., 2017).

When employers support breastfeeding, they experience reduced turnover rates and cost savings related to employee recruitment and training (U.S. Department of Health and Human Services, 2008). Breastfeeding families may save money on formula, although some may require specific supplies and services to facilitate breastfeeding (e.g., electronic breast pumps, lactation consults; Demirci, 2019). Direct breastfeeding is beneficial to the environment and does not require manufacturing plants, packaging, storage, transportation, or refrigeration; it generates no waste and is a renewable resource (Save the Children, 2012).

Achieving Equity

Disparities related to initiation, duration, and exclusivity of breastfeeding persist (Bartick, Jegier, et al., 2017; Beauregard et al., 2019). Drivers of these disparities include systemic racism, bias, and inequitable access to lactation support and human milk feeding resources (Asiodu et al., 2017; Robinson et al., 2019). Based on data from the 2011 Maternity Practices in Infant Nutrition and Care (mPINC) survey, Lind et al. (2014) compared birth facilities in areas with greater than 12.2% Black residents to facilities in areas with less than or equal to 12.2% Black residents. These researchers found that facilities in areas with more Black residents were less likely to meet five of 10 mPINC indicators for recommended practices that support breastfeeding. The largest differences were related to early initiation of breastfeeding, limited use of breastfeeding supplements, and rooming-in (Lind et al., 2014). Maternity care practices supportive of breastfeeding, such as the Baby-Friendly Hospital Initiative, are often limited in Black communities (Merewood et al., 2019). As many as one in four women must return to work in 10 to 14 days after giving birth (Van Niel et al., 2020); therefore, lactation support in the workplace is critical to achieve duration and exclusivity goals. However, in California for example, Black and Hispanic women who were classified as low wage workers had less access to lactation support in their workplaces than White women in general (California Pediatric Obesity Collaborative Improvement and Innovation Network, 2020). Disparities were even more pronounced when primary language and income were taken into consideration: higher wage earners and those whose primary language was English were more likely to have access to vital lactation support and accommodations in the workplace (California Pediatric Obesity Collaborative Improvement and Innovation Network, 2020).

In addition, lactation support and human milk feeding resources for individuals who do not identify as cisgender or heterosexual and their families are significantly limited. The use of a patient's preferred pronoun and terminology is an important aspect of respectful care and aligns with efforts to create more equitable health care environments (Dinour, 2019; MacDonald et al., 2016; Spatz, 2020; Walks, 2018). Systemic and structural barriers need to be addressed to ensure the most marginalized populations have access to the benefits associated with human milk feeding.

The Role of the Nurse

Nurses in a wide range of roles and practice settings facilitate informed decision-making by providing assistance, support, and education that advances the scientific knowledge on breastfeeding before and after birth, and they link parents to breastfeeding resources. Nurses should acquire knowledge and demonstrate the competence needed to provide consistent, evidence-based information to support human milk feeding for all families during the preconception, prenatal, and postpartum periods. In addition, consultation with a clinician with appropriate expertise (e.g., an International Board Certified Lactation Consultant [IBCLC]) should be available.

All parents have the right to equitable, culturally sensitive, gender-affirming breastfeeding support, and nurses should be prepared to address cultural issues related to human milk feeding in the populations they serve. Nurses should provide parents with unbiased, evidence-based information about the risks and benefits of various feeding options to facilitate informed decision-making. When the safety of human milk feeding is in question because of the dyad's medical conditions, medications, supplements, or diet, nurses should share current, evidence-based resources and/or refer parents to professionals with relevant clinical expertise (e.g., lactation consultant, pharmacologist, pediatrician) as needed. If parents or other health care providers believe that breastfeeding or human milk feeding is contraindicated when evidence indicates otherwise (e.g., smoking cigarettes or after anesthesia), nurses should clarify current recommendations and supporting rationale.

Recommendations

Beyond direct clinical care, nurses should capitalize on opportunities to advocate for breastfeeding families through programmatic and policy work, research and quality improvement initiatives, and industry and health system innovations. AWHONN urges members to engage with initiatives that facilitate and build capacity within existing, effective breastfeeding support systems and to lead new breastfeeding support initiatives where no infrastructure currently exists or is not serving the needs of the community.

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Strategies to Protect and Promote Human Milk Feeding and Breastfeeding

- Increase adoption and integration of legislation that supports the right to breastfeed or express milk whenever, wherever, and in any manner desired (e.g., covered or uncovered).
- Expand current legislation that provides protected time and space to breastfeed or express milk in the workplace.
- Advance state or local legislation that endorses breastfeeding/lactation friendly workplaces and childcare centers and incentivize such programs for business owners.
- Expand legislation that provides paid parental leave to mirror national/international benchmarks set for breastfeeding duration.
- Ensure local/state laws allow exemption from jury duty or an option to defer service for up to one year during lactation.
- Increase funding for effective breastfeeding support programs and tracking/monitoring systems.
- Increase funding for public health initiatives aimed at normalizing breastfeeding especially for populations with historically low rates of breastfeeding. This includes advertisements and incorporation of breastfeeding/lactation education, including basic physiology, into health and biology courses in elementary, middle, and high schools.
- Expand insurance coverage for lactation services (IBCLCs, breastfeeding counselors) and lactation supplies.
- Expand insurance coverage in public and private markets for pasteurized donor human milk for medically fragile or vulnerable infants and for well-infants who require brief periods of supplementation (e.g., bridge milk).
- Provide unbiased information on the risks, benefits, and safety of informal milk sharing for families who are considering or are engaged in the practice (American Academy of Nursing, 2016; McNally & Spatz, 2020; Palmquist & Doehler, 2016).

Strategies to Ensure Equity and Social Justice in Human Milk Feeding and Breastfeeding

- Develop legislation and policy to acknowledge how structural racism affects breastfeeding support and include actionable steps to dismantle it.
- Ensure that all nurses and other health care providers receive education on structural racism, anti-racism, and bias during all levels of clinical training and practice.
- Support programs and initiatives to diversify the current nursing, lactation, and health care workforce.
- Establish equitable systems to improve the quality of lactation support that incorporate the voices and experiences of members of marginalized and oppressed groups.
- Collaborate with other health care providers and systems to develop plans to support breastfeeding for incarcerated women.

Nursing Education and Leadership in Lactation Science

- Expand current clinical and didactic nursing education curricula at all levels to include lactation physiology, basic breastfeeding principles and management, and the effects of disparity on human milk feeding.
- Offer and incentivize opportunities within healthcare institutions for perinatal nurses to receive in-depth training in lactation science through continuing education or certification.
- In spaces where lactation experts and advocates from nursing or other disciplines have been systematically excluded, under-valued, or underrepresented, build new inclusive and collaborative infrastructure. Create opportunities to increase the visibility of significant nursing contributions to the lactation field.

Research and Innovation in Lactation and Human Milk Feeding

- Increase funding for research on breastfeeding and the use of human milk.
- Build infrastructure for collaborations between community organizations, research institutions, and ethical industry partners to accelerate the pace of discovery and new applications in human milk science.

Summary

AWHONN recognizes breastfeeding as a public health priority and one of the most important health behaviors that affects morbidity and mortality among women and children. Given the health benefits and significance of human milk feedings for mother-child dyads, systemic and structural barriers such as racism, discrimination, bias, and inequitable access to lactation support and human milk feeding resources, should be addressed to ensure that all women have access to the support needed to reach their infant feeding goals. Nurses are uniquely positioned to drive innovation and reform in human milk feeding science, policy, and support infrastructures.

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Notes on Terminology

The term "breastfeeding" is used herein and is meant to acknowledge and encompass the act of feeding one's child one's own milk by any method. "Chestfeeding" and "body feeding" may be preferred terms for some people, including transgender and gender nonbinary individuals. Although the words "woman," "women," and "mother" are used herein, AWHONN recognizes the existence of diverse gender

identities. To provide appropriate, respectful, and sensitive care, the health care provider should always ask individuals what words they use to describe themselves, their bodies, and their health care practices.

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