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Advocacy and Policy in Enhancing Nursing Care for Premature Infants in Neonatal Intensive Care Units

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Abstract

Background: NICU is a facility to cater for premature infants and nursing care is critical to their survival and future well being. Staffing, care environment and family centered practices are best enhanced through advocacy and policies.

Aim: Understanding the principles of advocacy and policy in relation to neonatal nursing care and how nurses can effect change in practice to positively improve the care of premature babies is the focus of this study.

Methods: A literature search was undertaken to identify how advocacy and policy affected NICUs relative to staffing, family integrated models of care, and evidence based care.

Results: Therefore, there are strong suggestions of promoting nurse advocacy concerning staff ratios, working environment, and family-friendly and equality policies.

Conclusion: The awareness and both legal and political viewpoints are important when trying to increase the quality of the treatment of newborns and outcomes in premature babies. Nurses must therefore work hard in demanding for policy reforms that enhance the best care.

Keywords: newborn care, preterm babies, nursing advocacy, health policy and politics, diluted NICU, patient family centered care.

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Introduction

Neonatal nursing care is an essential part of neonatal health care because the survival and future wellbeing of preterm infants strongly depends on the quality of NICU services. Premature infants are usually susceptible to various complications and therefore require complex care that is not only medical, but also nursing and emotional to the infant and the family. These nurses are required to provide this intensive care in the NICU's, they may need to address a variety of medical issues while also lobbying for change in the health care policies, services and equipment. Advocacy and policy work hand in hand with NICU quality of care because they reflect the staffing pattern, family engagement, resources, and NICU care

environment. This paper discusses the Advocacy and policy in relation to Neonatal nursing practice to understand how nurses can champion healthcare systems and policies to address the need of preterm infants. Addressing these issues will contribute increased knowledge of the relationship between nursing practice, policy and the impact within NICU units.[1,2]

The Idea of the Nursing Care to Neonates

Nursing of premature will be therefore focusing specifically on care for infants with born early before completing the normal gestation period of less than 37 weeks. Newborn baby complications include aspiration, hypoxemia, temperature instability, feeding intolerance, infection, and metabolic perturbations. Of more concern is the concept of nursing care to such an at-risk group of infants as encompassing equally effective highest standard of nursing care that encompasses overall comprehensive interventions in ensuring the infants' survival and development to later years. These essential cares are such things as the regulation of the life's sustaining signs, the giving of some medications, proper feeding, and curb environment that resembles the womb.[3] Although the care of premature infants requires the application of sophisticated technologies, NICU nurses remain the ones who stand at the center of this approach providing both medical security and comfort. In addition to the physical requirements of the baby, they provide much emotional support to the family as they take the parents through the trauma of having a premature child under intensive care unit. The main premise of nursing intervention in regards to premature infants is a team approach, where nurses work with neonatologists, pediatricians, respiratory therapists, and dietician in order to create unique plans of treatment for each patient. This management is meant to control the severity of the infant's condition, ward off any complications and ensure that the best developmental progression is achieved. Finally, care given to premature infants entail entails more than survival but provision of the greatest start in life for these babies. This requires a fusion of medical knowledge sophistication and compassion in an endeavor that requires commitment to impacting an individual's entire life, when that individual is a vulnerable but strong and beautiful newborn.

Developmental profile and problems of preterm baby in NICUs

Neonates exhibit different physiological and developmental profile that require intense care in NICU especially those born preterm. These infants are born before the completion of 37 weeks of gestation; as a result the organs, which are part of the body, are poorly developed and unable to work all by themselves. This is true because one of the most daunting complications that they experience is respiratory distress, mainly because of an immature and weak lungs, and a lack of production of surfactant which is vital in helping the lungs to stay open. Also, they have less developed thermoregulatory mechanisms which hampers the capacity of their small and Infants have less amount of fat and less thick skin in their bodies. Low birth weight babies also have feeding problems because of weak suckling reflexes, immature gastrointestinal tracts, and may require enteric feeding. Those children are in an early developmental stage, which weakens their immune systems and causes them to be vulnerable to illnesses and diseases in NICU; hygiene and sanitation play an important role in NICUs.[3,4]

In order to meet these needs NICUs are designed to maintain the essential and safe climate to help premature infants grow and develop. Incubators with radiant warmers are used to achieve the established thermal environment in maintaining temperature. Most patients need some supplemental oxygen, through the use of continuous positive airway pressure (CPAP) or a mechanical ventilator to breathe for them. Other nutritional requirements are met through the means of parenteral nutrition formula otherwise known as breast milk fortifiers, which is a combination of all the nutrient necessary for growth and development. Other systems monitor real-time physiological parameters including pulse rate, oxygen saturation, blood pressure for any sign of deviation from the normal. Apart from the medical management, developmental care including positioning to achieve comfort, reducing noise and light exposure, and encouraging skin to skin contact including kangaroo mother care is done for premature infants.[5,6]They also get more emotional and psychological distress from both the healthcare service giver and their families. They are the most responsible for their infant's care and therefore require encouragement from the NICU staff as they gain confidence on how to handle their baby. Every baby born prematurely is different, and his management

is individual, therefore, many specialists are involved in the treatment process. High technology complements appropriate nurse patient care, thus providing the best opportunity for those infants to survive and grow and adapt to their NICU environment; preparing them for independent existence outside the NICU.[7,8]

The present study examined the perceptions of the roles and responsibilities of nurses employed in NICUs.

Neonatal intensive care unit, more commonly referred to as NICU nurses play an arguably complex and very important function of caring for prematurely born as well as sick newborns. These nurses are a supporting frame of the NICU As they work throughout the day & night to attend to premature infants that need constant monitoring & so much care. Their roles go well beyond mere care giving to entail clinical work, consoling families, and working with other professionals. The interventions that can be NICU nurses may include; Constant checking of the infant's physiological data, administration of resuscitation medications and operation of high technology procedures such as, incubators and mechanical ventilators. They monitor the changes in an infant's condition, cut off any complications such as respiratory distress, infections or Lakers cardiac issues as the first line of form. Hence, their capacity to make decisions almost simultaneously while balancing on the technical aspects can be a matter of life and death for such patients.[9,56,57]This paper also reveals that, in direct care, NICU nurses are IFEs key relievers of their emotional and psychological distress. They are also teacher teaching parents how to take good care of their delicate new born and how to prepare for their coming home. This includes offering advice on nutrition and cleanliness, advice on when the child may be displaying early signs of an infection or any other disease and encourage those parents who may feel that their child is too delicate to handle because of the numerous needs they have to respond to. The NICU nurses also provide comfort, enabling families with the social wellbeing they require to deal with a baby in an incubator. They develop goodwill with family members, firmly making friends with many of them long after the infant is transferred out.[10,11]

NICU nurses are involved in the multi-disciplinary approach of neonatal intensive care as construction of care delivery system. They consult with neonatologists, pediatric subspecialists, respiratory therapists and dieticians in writing and implementing individual patient care plans. The observations made and ideas provided by competent specialists make it possible to provide the necessary care adapted to each baby. Aside from their orientation to relate directly to patients by spending a great deal of time at the patients' bedside, most NICU nurses work to help improve care for newborns by engaging in research and challenging the adoption of evidence-based practices. They are initially used in setting practices that make a huge difference in the life of premature infants. It is my understanding that the real job of NICU nurses is not only giving medical timely bios, but also fighting for their tiny patients, accompanying parents for a difficult process, and building a healthy life for babies as early as possible.[12,13]

Basic Measures to be taken in the Management of Newborns Especially the Preterm Babies

Nursing care for premature infants requires a number of sensitive measures intended to respond to various medical, developmental and psychological requirements of the infants. Probably one of the most important forms of support is ventilator as premature infants normally have poor lung development and insufficient secretion of surfactant hence leading to respiratory distress syndrome. It target on the nurses in the adjustment of the respiratory instruments including; the artificial ventilator, the continuous positive airway pressure machines or the high flow nasal cannulas whereby the oxygen levels are maintained to the acceptable levels. For children who can take some form of feeding through the mouth, breast milk is usually recommended because of its protective and developmental impact. Breast milk is often supplied with extra nutrients that may be required to cater for calorie and protein requirements of premature babies by the nurses. They also watch for feeding tolerance with an eye out for any sign of complications including NEC which is a condition that may be fatal. Apart from contributing to growth and positive changes in body weight the child needs proper nutrition to enable formation of vital organs.[14,15]

Another intervention is thermoregulation because premature infants are at high risk for hypothermia because of the baby's thin skin, little subcutaneous fat tissue, and underdeveloped thermoregulatory

systems. Sometimes to ensure that the body temperature of the patient is controlled nurses employ incubators, radiant warmers, thermal blankets. They also reduce heat loss by gentle handling of the babies, adequate covering and regulating heat in the NICU. When it comes to personal services essential to make people healthy, common infection measures are also considered. This is because these premature babies still have developing immune systems, and therefore lack sufficient immunity to resist ill health. General standards involved nurses follow the right procedures with various processes being associated with use of sterile conditions, hand washing frequently, and observing regularly for signs of sepsis or any other infection.[16] Developmental care is thus one of the core forms of nursing interventions applicable on premature infants. The idea used in this approach is to set an environment that as much as possible resembles the condition within the womb hence achieving both physiologic and neurologic stability. Some practices include placing the infant in a fetal position, shielding the baby from light and sound, and providing physical touch by skin to skin contact or as known in some quarters as kangaroo care. They assist in controlling the Infant's heart rate, breathing and stress hence improving the parent Infant relation. Medical and developmental approaches provide ideal methods to fill the gaps of client needs in neonatal intensive care units so that premature infants' rate of survival and life quality can be enhanced. [17,18]

The Role of Care in Enhancing the Quality of Premature Infant's Health

Care is the central tenet of nursing in order to enhance the health and developmental strides of premature babies that progresses through numerous struggles due to immature organs. Low birth weight babies are prone to have various problems including respiratory problems, feeding problems, and infection, and physical and mental development delay. Such concerns are well handled by the nurses by conducting constant surveillance, intervention and development of care plans for revue. They became experts in the handling of life-supporting devices and methods of treatment affecting breathing and circulation with which infants are usually born prematurely. For instance, nurses monitor oxygen administration to avoid scrupulous side effects such as retinopathy of prematurity that may cause blindness, if not well controlled. Instead, by paying close attention to the patient, the nurse lowers the likelihood of post-surgery complications and raises the percentage of patients alive right after surgery.[19,54,55]

Besides, focusing on acute medical issues, nursing care introduces deep changes in the development of the premature infant health further. Active developmental care by nurses includes things like proper positioning, swaddling, skin to skin contact, which help in Neuro Developmental care for the infant, and promote family integration. Such treatments assist to decrease stress level in premature babies, gaining control of their heart rate and breathing, as well as promoting feelings of security in them. They also pay much attention to feeding with reference to breastfeeding and delivering of fortified formula feeds which are important in growth and development of the brain. That match proper nutrition also boosts physical health but also the cognitive performance which makes premature infants to develop as required.[20,21] the present study identified that nurses have a crucial responsibility of educating and supporting families, particularly their preterm babies after hospital discharge. They inform parents when and how to identify symptoms of diseases. intake and administration of foods and drugs for their baby and put in place an environment that will allow for proper care at home. This education helps to prevent the readmission of the infant and allows families to give care that is in the best interest of the child. Other aspects on a side of nurses' interaction include providing emotional contact which may lessen anxiety for postnatal family and development of resilience and confidence.[22,23]

From the recommendations of the study indicating the Importance of nursing care for individual infants to the Importance of nursing care to the healthcare system, it is clear that importance of nursing care is paramount. NICU nurses are involved in the conduct of research and the adoption of ever-evolving best practice, to enhance delivery of quality care to premature infants. With their advocacy for the tiny patients, and by pressing for the best quality care, nurses contribute to changing the fortunes of one of the world's most vulnerable populations. Briefly, the efforts they contribute involve not only saving lives but also putting bases to a healthier future for these new born infants making nursing care an essential tool in enhancing health of premature infants.[24,52,53]

Difficulties Experiences Encountered While Delivering Nursing Care to Premature Neonates in NICUs

argued that offering of nursing care to pre-term infants in NICUs is a very challenging and complex process, which has a lot of challenges. The first challenge is that the premature infants, themselves, are quite delicate. These infants are born with organs that are not well developed and are very prone to contract complications including; respiratory problems, infections and cold. Patients especially the ones with heart conditions should ensure they are being supervised all the time because rarely nurses are able to attend to them immediately in cases that may be lethal. This calls for high skill, probe and decisiveness because even slightest deviation in vital signs could be an indication of grave complications.[49,50,51]Taking care of technologically enhanced medical instruments and apparatus like ventilators and incubators bring on the added challenge because the tiniest changes to the settings may lead to life threatening situations like oxygen toxicity or temperature fluctuations . Another major problem is the mental and social-effect of Stress on both nurses and families. Low birth weight babies spend a lot of time in the NICU and during this period, families are stressed, anxious and uncertain. Nurses are supposed not only to treat children and give instructions to parents, but also to support them and explain that they are hardly able to cope with a child's condition. It can be quite draining to fulfill both of these roles simultaneously and while counselling families that have lost their newborn especially an infant, competing in a team running against time to bring home the grim, over all implications of prematurity to a struggling family or a family that has lost their newborn, it is a demanding task. Since nursing entails personal care, the emotional stress associated with the illness of critically ill infants affects the self and work productivity of the nurses.[25,26]

Staffing and resource issues also play their part in influencing just how well care can be delivered to the patients in NICUs. The healthcare facilities are struggling to provide adequate numbers of trained neonatal nurses, and often, the number of patients is considerably more than the number of nurses. This is especially true in NICUs for infancy; each baby needs close and unique care and monitoring. Another challenge may result from inadequacy of some resources, for instance, apparatus or space to implement several techniques to the full. These challenges are however compounded in low-resource settings, where the nurses practice when basic requisite supplies and technologies to care for premature infants are insufficient.[27,28]

Last but not least, there are always issues related to novelty of the burgeoning field of neonatal medicine. The professional nurse should also continue learning the new trends in technology, best practice and policies in order to offer quality service. Education is a lifelong process, and training can greatly enhance the ability of the participants but this process consumes a lot of time and costs a lot of money both at the individual and the institutional level. However, NICU nurses still persist in their duties, and show incredible strength and flexibility in working to get the best results for the smallest patients. These issues need systematic solution involving provision of sufficient staff numbers and training, support through the programs for mental health of nurses. and nurses to invest in resources and technology to develop a system that will support the growth and development of both nurses and infants.[29,30]

Improving Nurse-Related Care in Neonatal Intensive Care Units

In NICU, the findings suggest that improving nursing care practices of premature and critically ill infants are central to better outcomes. Most advanced changes in neonatal practice are pioneered by nurses because they remain actively involved when it comes to improvement of care quality and safety measures for babies. Another major development in the recent years involves translation of research findings into clinical routine activities of the nursing practice. This approach ensures that care strategies are based on recent research findings so that health care workers can offer the best strategy to premature infants. For example, reductions in infection control in NICU by using tangible evidence base protocols for infection control as in the case of using antiseptic measure during central line insertion and maintenance have helped in reducing rates of sepsis. Also technological improvements in the respiratory support including the non-invasive ventilation and selective oxygen index, have enhanced the newborns' survival and diminished the adverse effects including Broncho pulmonary dysplasia.[31,32,48] One accomplishment is the shift in focus to increasing family integrated care in NICU. It also focuses on the importance which families assume in the

process of recovery and further development of premature infants. Nurses are now involving parents in the care process, demonstrating some tasks, such as feeding and positioning, as well as adopting practices such as kangaroo mother care. Some common touch involves; Skin-to-skin contact has been highlighted to enhance bonding, to regulate the baby's physiological stability and promote successful breastfeeding. NICU nurses support parents and develop a unity of care that enhances the family's ability to be prepared for home care thus improving the future prognosis for the baby. Technology has also improved the nursing care of infants admitted in NICUs by enhancing effective, individualized assessment as well as interventions. Sophisticated respiratory equipment, sophisticated incubators, and biosensors help in collecting information concerning an infant's condition and assist nurses to modify their care as maybe needed. Some of the digital health technologies include electronic managing of care records, and telemedicine which connects care givers who are in different disciplines so as to provide continuity of care. Also, through simulation, the author notes that technology has proven to enhance the training of nurses in the NICU exposure to realistic but controlled scenarios. These innovations also increase confidence and competence besides increasing the quality of care.

Nutrition: A Developmental Physical Examination Approach for the Very Low Birth Weight Preterm Infant >, putting future progress of NICU nursing forward will demand sustained efforts on education, research, and interprofessional. The nursing students will also be continued with the professional development activities to enhance their awareness of the up and coming trends and innovations. Future research initiatives will aid in finding out strategies to face the combating issues of prematurity while interprofessional relations will ensure an integrated systematic approach. The incorporation of these technologies means that nurseries will be able to maintain high quality care for their patients, and premature infants in particular will have every chance for a good start in life.[33,34,35]

The Importance and Prospect of the Treatment of Preterm Babies

In order to truly comprehend the importance of nursing care for premature infants, these objectives must be considered: short-term/long-term survival, stability and general developmental progress. Premature newborns constitute a group of patients with a number of problems: immature organs, immune systems, and increased risk for the development of complications like respiratory distress syndrome, feeding problems, and infections. In these three initial days of life AN can become the key to the survival and subsequent health of the infant. NICU nurses are on duty every time of day, managing high techequipment, and administering critical care to these vulnerable babies. The interventions that they provide affect the prognosis of preterm births, which were always accompanied by increased mortality and further health problems. The health care and keen observation that NICU nurses offer together with the knowledge of neonatology provides premature infants with the best shot at survival. In addition, through practices such as family-centered care, nurturing the parents emotionally/educationally, nurses champion families' struggles -tegrety continuum enhance ability to transform the journey of having a premature infant from being a stressful one to an empowering one.[36,37,47]

In prospect, there is much expected in the nursing care of premature infants with many aspects of enhancements. The incorporation of technology seems to be one of the key trends for the future for improving the neonatal care. The applications of smart incubators and wearable sensors together with better configurability of neonatal monitoring systems will facilitate automatic and/or better monitoring of vital signs and problems' identification at the correct early stages. These technologies are also anticipated to lower the likelihood of human mistake through constant feed of information so that the nurses can take the correct action when necessary. In addition, such innovations as AI and machine learning in the neonatal sector could be potentially used for strengthening decisions-making, accuracy of predictions, and, therefore, individual approach to the care of a newborn depending on every particular infant. The more that these technologies spread, the more the abilities of the nurses will spread in offering efficient, accurate and early care.[38,39,40]There is an expected advancement in developmental care in nursing of premature infants in the future. Nurses have started embracing the roles of the environment surrounding the infant in early development of the brain. Mites like identifying reduced stress to environment contributors like noise and light, skin to skin contact through kangaroo care, and AAP recommendations of tummy time for the

preterm infants to enhance their growth and development. As students continue to invest time in studying the effects early years have on human functioning, neonatal nurses are better placed to understand ways in which to support motor and physiological growth.[41,42,43] Nurses can participate in advocating for such policies with interprofessional teams and academic institutions because of the evidence suggesting that local policies can enhance patient outcomes by considerably minimizing the variability in how patients are treated.Thus, advocacy and policy and its roles in the provision of neonatal nursing care are central to the promotion of the health and well being of preterm infants. If advocacy is done by nurses particular to the premature infants, then the needs of babies are taken into consideration at all available levels. The changes in policies required that identify appropriate staffing, family-centred, equal access for the services, and the components of the evidence-based are mandatory to build a healthy environment for both infants and health care workers dealing with such patients. While advocating and working on policy change, neonatal nurses ensure continual development of care delivery to promote better quality of life for preterm infants and families.[44,45,46]

Conclusion

self-advocacy and policy development play the most important role in determining the quality of care of premature infants. Nurses are not only clinicians but also change agents who can drive the culture change required to strengthen nursing care environments, staffing to fill existing gaps, family involvement and equal access to services. Nurses support the need for enhanced resources, the provision of training to health care professionals and the enhancement of policies based on research(receiver) and effectively, the premature infants receive the best health care they can get. On this note, nurses will always be in a central position to champion the needs of premature infants and their families as the policies change to drive enhance the entirety of neonatal care. It is the evidence that further development of the advocacy and policy in the neonatal nursing care in the future might enhance the early outcomes of premature infants and provide a better environment for the neonatal nurses to work.

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الدعوة والسياسات لتعزيز رعاية التمريض للرضع الخدج في وحدات العناية المركزة لحديثي الولادة

الملخص

الخلفية: تعد وحدة العناية المركزة لحديثي الولادة (NICU) منشأة مخصصة لرعاية الرضع الخدج، حيث تُعتبر رعاية التمريض حاسمة لبقائهم على قيد الحياة ورفاههم في المستقبل. يمكن تحسين التوظيف وبيئة الرعاية والممارسات الموجهة نحو الأسرة بشكل أفضل من خلال الدعوة والسياسات.

الهدف: يهدف هذا البحث إلى فهم مبادئ الدعوة والسياسات المتعلقة برعاية التمريض في وحدات العناية المركزة لحديثي الولادة، وكيف يمكن للممرضات إحداث تغييرات في الممارسات لتحسين رعاية الأطفال الخدج بشكل إيجابي.

الطرق: تم إجراء بحث في الأدبيات لتحديد تأثير الدعوة والسياسات على وحدات العناية المركزة لحديثي الولادة فيما يتعلق بالتوظيف، ونماذج الرعاية المدمجة مع الأسرة، والرعاية القائمة على الأدلة.

النتائج: تشير النتائج بقوة إلى تعزيز الدعوة من قبل الممرضات بشأن نسب الموظفين، وبيئة العمل، والسياسات الداعمة للأسرة والمساواة.

الخلاصة: الوعي بالمنظورين القانوني والسياسي يُعد أمراً مهماً عند السعي لتحسين جودة علاج الأطفال حديثي الولادة ونتائج الرضع الخدج. لذلك، يجب على الممرضات العمل بجد للمطالبة بإصلاحات سياسية تعزز تقديم أفضل رعاية ممكنة.

الكلمات المفتاحية: رعاية حديثي الولادة، الأطفال الخدج، الدعوة التمريضية، السياسات الصحية والسياسية، وحدات العناية المركزة المخففة، رعاية المريض والأسرة.