

Evidence Brief: Neonatology

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Produced by the Knowledge Management team Evidence Briefs offer an overview of the published reports, research, and evidence on a workforce-related topic.

Date of publication: June 2024

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There may have been an update to this Evidence Brief - to check you are reading the most current version please see the links below:

- [Complete Evidence Brief list – link for Workforce, Training and Education staff](#)
- [Complete Evidence Brief list – link for External staff](#)

Key publications – the big picture

[Update from the Maternity and Neonatal Programme](#)

Source: NHS England

Publication date: 5 October 2023

This paper sets out progress on maternity and neonatal care since the publication of our three year delivery plan in March 2023.

[NHS Long Term Workforce Plan](#)

Source: NHS England

Publication date: June 2023

The first comprehensive workforce plan for the NHS, putting staffing on a sustainable footing and improving patient care. It focuses on retaining existing talent and making the best use of new technology alongside the biggest recruitment drive in health service history.

[Three year delivery plan for maternity and neonatal services](#)

Source: NHS England

Publication date: March 2023

This plan sets out how the NHS will make maternity and neonatal care safer, more personalised, and more equitable for women, babies, and families. We are grateful to the many people and organisations that have shared what needs to be done including NHS staff, Donna Ockenden, Dr Bill Kirkup, and organisations representing families. Most importantly, we would like to thank those using maternity and neonatal services for informing this plan. While the birth of a baby represents the happiest moment of many people's lives, some families have experienced unacceptable care, trauma, and loss, and with incredible bravery have rightly challenged the NHS to improve.

[Neonatology: GIRFT Programme National Speciality Report](#) Free registration to FutureNHS Platform required to join the workspace and view the report

Author(s): Adams et al.

Source: NHS Getting It Right First Time (GIRFT)

Publication date: April 2022

The GIRFT neonatology review follows NHS England's Neonatal Critical Care Transformation Review (NCCR), which published an action plan in December 2019 focused on aligning and investing in capacity, developing the expert neonatal workforce and improving the experience for families. The GIRFT review provides more granular detail on progress in these areas (see also GIRFT's Neonatology Workforce Report), as well as exploring new areas for improving clinical care and patient safety.

See also "[Neonatology supplementary workforce report](#)"

[Final report of the Ockenden review](#)

Source: Department of Health and Social Care

Publication date: 30 March 2022

Findings, conclusions and essential actions from the independent review of maternity services at the Shrewsbury and Telford Hospital NHS Trust.

[National Neonatal Audit Programme: Annual report on the 2020 data](#)

Source: Healthcare Quality Improvement Partnership (HQIP)

Publication date: March 2022

The National Neonatal Audit Programme (NNAP) has published its latest annual report. Based on 2020 audit data from neonatal services in England and Wales, it describes neonatal care in a period when societal lockdowns, limitations to parental access, staff shortages and general disruption to hospital services had the potential to significantly impact care delivery.

[RCOG Workforce Report 2022](#)

Source: Royal College of Obstetricians and Gynaecologists

Publication date: February 2022

Since the last RCOG workforce report in 2018, the O&G profession has faced many challenges. Although the birth rate is falling nationally, there are rising levels of clinical complexity, budget cuts and staffing shortages of doctors, midwives, nurses and other allied professionals. Whilst demand for services in some areas is declining, there are increased requirements in other areas due to demographic shifts, an aging population and rising levels of obesity. All of this has been magnified and compounded by the Covid-19 pandemic which has required health professionals to work differently and adapt services to continue to provide care to women.

[The complete guide to becoming a neonatologist](#)

Source: BMJ Careers

Publication date: 5th October 2021

The Role Of A Neonatologist

A neonatologist is a doctor who specialises in the care of newborn babies. The birth of a child being a life-changing event, a career in neonatology is accompanied by rewarding and emotionally challenging scenarios alike.

When newborns require extra support, being part of the team with the ability to provide this, can not only save the infant's life but can also have a huge impact on the surrounding family.

A [career in neonatology](#) spans a spectrum of clinical conditions; the care required can vary from critically ill preterm babies in the neonatal intensive care unit (NICU), to the care of well term babies on the postnatal ward(1).

[A snapshot of neonatal services and workforce in the UK](#)

Source: Royal College of Paediatrics and Child Health

Publication date: September 2020

The current study was conducted on a weekday and weekend day in September 2019, and surveyed 191 neonatal services. Results from this snapshot were reported back to neonatal services in January 2020 through individual benchmarking reports produced by the GIRFT team. This report summarises the findings at a national level.

[A snapshot of general paediatric services and workforce in the UK](#)

Source: Royal College of Paediatrics and Child Health

Publication date: September 2020

This study about general paediatric services and workforce was conducted in September 2019, prior to the COVID-19 pandemic. The results reveal a stretched general paediatric service, with a great deal of variation in services across the UK. This report serves as a useful benchmark and as a prompt to consider the aspects of general paediatric care that should be restored, can be innovated, or that we do not wish to return to.

[Exploring new ways of working in the neonatal unit](#)

Source: HEE and London School of Paediatrics and Child Health

Publication date: 2017

This project has been commissioned by the London School of Paediatrics / Health Education England to explore new ways of working within neonatal units across London with an aim to provide collaborative recommendations on ways to reduce the dependence of service delivery on the paediatric medical workforce by providing a more stable, mixed, neonatal workforce. Workforce issues are not limited to medical rotas; review of national and local data has found that there is a considerable vacancy across the different professional groups nationally and within London. Neonatal units across London have a paucity of qualified in speciality (QIS) nurses and there is a wide variability in the availability of enhanced and advanced roles in neonatal nursing.

Case Studies

Allied Health Professionals, Pharmacists, Play Specialists and Psychologists in Neonatal Critical Care – Good Practice Case Studies Guide A

Source: Health Education England

The HEE National Maternity and Children and Young People Programme team in collaboration with the HEE AHP Lead and representatives from the Allied Health Professions (AHPs), Pharmacists, Play Specialists and Psychologists have been working together to understand, identify and showcase the contribution and potential contribution of the professions in Neonatal Critical Care. This has included holding HEE STAR workshops about the neonatal workforce. One of the outputs identified from the workshops was the need to develop and promote case studies/best practice examples/parent stories that articulate the benefits of these roles in Neonatal Critical Care which will aid business case development.

These guides have been designed to support health and care staff who have an interest in the planning, development, and delivery of neonatal critical care.

Allied Health Professionals, Pharmacists, Play Specialists and Psychologists in Neonatal Critical Care – Good Practice Case Studies Guide B

Source: Health Education England

The HEE National Maternity and Children and Young People Programme team in collaboration with the HEE AHP Lead and representatives from the Allied Health Professions (AHPs), Pharmacists, Play Specialists and Psychologists have been working together to understand, identify and showcase the contribution and potential contribution of the professions in Neonatal Critical Care.

[A Collaborative model for providing fetal maternal medicine](#) See p. 122

Source: Royal College of Obstetricians and Gynaecologists

Publication date: February 2022

In May 2019 GSTT, London and William Harvey Hospital, Kent jointly appointed a consultant who provides sub-specialist fetal medicine service (3 PAs) in Kent; two sessions on the same day with availability via telephone for clinical and administrative queries in between the clinic during the working week. (see benefits for neonatologists)

[Improving outcomes for premature babies in the west and south west of England](#)

Source: NHS Confederation

Publication date: April 2022

A unique perinatal care bundle has improved the outcomes for premature babies across the west and south west of England.

[Neonatal Assistant Practitioner role developed and implemented for Neonatal services to provide specialist care of babies and release time to care for Nurses and Midwives, making a more effective workforce for improved patient care](#)

Source: Skills for Health

[NHS Tayside](#) has developed and plans to implement the role of Assistant Practitioner in neonatal services. Under the supervision of Registered Nurses and midwives, this new NHS Career Framework for Health Level 4 support worker role will provide care for specific groups of special care babies enabling Registered Nurses and Midwives to focus on babies with more complex care needs as well as releasing time to undertake other elements of their roles.

The Star for workforce redesign

More resources and tools are available in the **Maternity and children's** section of [the Star](#)

Statistics

You can find relevant statistics on the [Health and Care Statistics Landscape](#) under “**Health and Care**” and use the “**Child and Maternal health**” filter

[Maternity and Neonatal Data Hub](#)

Source: NHS England – Digital

This data hub is designed to signpost to a variety of resources containing maternity and neonatal data and information, and contains links from a wide range of public, private, and third sector organisations.

It's also the front door for accessing Maternity Services Data Set (MSDS) analysis and information about NHS-funded maternity services in England. If you are looking for advice about your own health or pregnancy, the NHS website provides guidance to the public on [trying for a baby, pregnancy, labour and birth](#).

National Data Programme

Workforce, Training and Education staff can look at the [National Data Warehouse \(NDL\)](#) SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Allied Health Professionals

[The evolving role of dietitians in neonatal units and beyond](#)

Abstract only*

Item Type: Journal Article

Authors: Smith, M. and Mustapha, M.

Publication Date: // ,2024

Journal: Paediatrics and Child Health (United Kingdom) 34(5), pp. 148-153

Abstract: Over the past few decades, the role of neonatal dietitians has undergone substantial transformation. Anticipated ongoing evolution is in line with the evolving goals of neonatal care, expanding beyond mere neonatal survival to encompass the enhancement of the quality of life and long-term outcomes for both ill and premature infants and their families. This review will describe the vital role that neonatal dietitians can fulfil, from the unit level to the broader network level, in collaboration with families and the comprehensive multidisciplinary team. It highlights the importance of optimal neonatal dietetic staffing, both within neonatal units and in broader healthcare contexts, to achieve these objectives effectively. Copyright © 2024 Elsevier Ltd

[Integrated knowledge-translation in occupational therapists working with high-risk infants in South Africa: An explorative qualitative inquiry](#)

Item Type: Journal Article

Authors: Dawood, A.;Govender, P.;York, S. J.;Rencken, G. and Ogunlana, M. O.

Publication Date: // ,2023

Journal: South African Journal of Occupational Therapy 53(2), pp. 74-85

Abstract: Background: This qualitative study explored the knowledge to practice gaps of occupational therapists who have a vital role in neurodevelopmental supportive care for high-risk infants. Method(s): Via purposive sampling, 17 therapists working in public health in South Africa were recruited to participate in virtual focus groups. Data were thematically analysed using a hybrid approach. Finding(s): Five themes emerged, which included (i) occupational therapy and neonatal care in the public health sector, (ii) knowledge acquisition and knowledge synthesis, (iii) knowledge translation and utilisation, (iv) contextual barriers and adaptation and (v) the ideal occupational therapist in the ideal neonatal setting. Facilitators, inhibitors, referrals, and interest in occupational therapy neonatal care were also highlighted. Conclusion(s): Knowledge to practice gaps in occupational therapy include insufficient training, a decreased interest in neonatal care, staff shortages, multi-disciplinary team rotations and a reduced understanding of the professional role and scope of occupational therapy. Resources, training, and policy development appear to be necessary to inform a standard of care. Implication for practice The role of the occupational therapist in supporting high risk infants is generally limited and remains somewhat unknown in current South African contexts. It is essential to identify knowledge-to-practice gaps for occupational therapists supporting high-risk infants in the public health sector for successful implementation of neurodevelopmental supportive care. By the exploration of practitioner opinions and insight through appreciating the role of the occupational therapist in managing high risk infants, contextually specific and relevant knowledge translation interventions may be developed and implemented which have implications for evidence-based practice and more successful outcomes in the high-risk infant. Copyright © SA Journal of Occupational Therapy.

[Introducing the new neonatal Operational Delivery Network speech and language therapists](#) Abstract only*

Item Type: Journal Article

Authors: Marks, J.;Gordon, Z. and Parnell, K.

Publication Date: // ,2022

Journal: Infant 18(6), pp. 214-216

Abstract: The lack of appropriate allied health professional (AHP) expertise within neonatal care has been formally recognised in recent years. This article reviews the background to the new neonatal Operational Delivery Network AHP and psychology strategic roles and how they are working to support neonatal workforce transformation plans. We explore how an expert neonatal speech and language therapist (SLT) workforce will complement the existing medical and nursing teams' expertise and review some of the challenges of current models of SLT provision. Copyright © 2022 SNL. All rights reserved.

Burnout and Fatigue

[Fatigue and fallibility: the perils of prolonged shifts for neonatologists](#) Abstract only*

Item Type: Journal Article

Authors: McAdams, Ryan M.

Publication Date: // ,2023

Journal: Journal of Perinatology : Official Journal of the California Perinatal Association 43(12), pp. 1530-1534

Abstract: Sleep deprivation is a major challenge for neonatologists, who face increasing demands in the complex healthcare system. Current neonatal intensive care unit (NICU) schedule models often include extended shifts and overnight call, which can lead to sleep deprivation. This lack of sufficient sleep poses adverse health risks to neonatologists and can impair cognitive function, which increases the risk of medical errors and compromises patient safety. This paper proposes reducing shift durations and implementing policies and

interventions to reduce fatigue among neonatologists and improve patient safety. The paper also offers policymakers, healthcare leaders, and NICU physicians valuable insights on potential ways to promote the health of the neonatologist workforce and safety in the NICU. Copyright © 2023. The Author(s), under exclusive licence to Springer Nature America, Inc.

Burnout and Turnover among NICU Nurses Abstract only*

Item Type: Journal Article

Authors: Thomas, Anisa O.;Bakas, Tamilyn;Miller, Elaine;Johnson, Kimberly and Tubbs-Cooley, Heather

Publication Date: // ,2022

Journal: MCN.the American Journal of Maternal Child Nursing 47(1), pp. 33-39

Abstract: INTRODUCTION: In 2019, the national average turnover rate of registered nurses in the United States was approximately 17.8%. Each percentage increase in turnover costs a hospital, on average, \$270,800. Although burnout is a known contributor to nurses' turnover intention, few studies have examined the relationship between nurse burnout and turnover, and there is little data on this relationship in neonatal intensive care environments. The purpose of this study was to examine the relationship between nurse burnout and turnover among neonatal intensive care unit (NICU) nurses., STUDY DESIGN: A secondary analysis of data collected from an observational study involving 136 nurses in a 52-bed NICU from 2013 to 2014., METHODS: Multivariate logistic regression models were used to test for associations between measures of burnout and turnover., RESULTS: 16.9% of nurses turned over during the 11 months of the original study. Most nurses reported high (46%) to moderate (37%) levels of emotional exhaustion. Final models did not indicate a relationship between burnout and turnover., CLINICAL NURSING IMPLICATIONS: Although burnout has been associated with turnover intent among nurses, we did not

observe an association between burnout and turnover among NICU nurses. Despite no direct relationship between burnout and turnover in the NICU, burnout may have other negative consequences. Nurse leaders should continue to prioritize reducing burnout among nursing staff to improve the well-being of the NICU nurse workforce. Copyright © 2022 Wolters Kluwer Health, Inc. All rights reserved.

Career Pathways

Workforce Characteristics of Early Career Neonatologists and Comparison of Practice Sites Abstract only*

Item Type: Journal Article

Authors: Nestander, M.;Day, C.;Lucke, A.;Gautam, S.;Horowitz, E.;Bernstein, S. M. and Bhatia, A.

Publication Date: // ,2024

Journal: American Journal of Perinatology 41, pp. E1126-E1134

Abstract: Objective: Transitioning into the early career physician workforce is a uniquely challenging period in a neonatologist's career. There are limited educational opportunities in fellowship regarding career progression, practice models, and benefits. Understanding these factors are key when searching for employment. This study evaluates the early career neonatologist (ECN) workforce and employment characteristics to improve identification of professional needs. Study Design: An anonymous 59-question cross-sectional survey was distributed in July 2020 to members of the American Academy of Pediatrics Section on Neonatal Perinatal Medicine Trainees and Early Career Neonatologists (TECaN). The survey instrument was designed using SurveyMonkey and assessed search methods for identifying employers, employment contract details, and professional duties. Questions addressed clinical service time, level of acuity, protected research time, financial compensation, benefits, job search methods, and promotion requirements. Comparisons were drawn between respondents exclusively

working in a university-based setting and respondents employed in nonuniversity locations. Responses were collected using SurveyMonkey and then extracted to a Microsoft Excel Workbook for analysis. Statistical analysis was performed using SAS version 9.4. Result(s): Of 1,302 eligible members, 348 people responded (26.7%). Forty-six percent of respondents worked in a university setting and 54% worked in a nonuniversity setting. Using employment site as a discriminator, significant differences were noted in scheduling models. University-located respondents were more likely to work 2-week block schedules, fewer weekend/weeknight call, less clinical weeks per year, and more research/administrative weeks per year. Between university and nonuniversity located positions, benefits were largely comparable, while factors perceived as influential toward promotion varied depending on practice site. Conclusion(s): This study provides ECNs with a contemporary workforce description vital to graduating TECaN seeking employment or renegotiating professional obligations. While benefits were largely similar based on practice site, promotion factors and scheduling models may vary depending on location. Copyright © 2023. Thieme. All rights reserved.

[Facilitating integration of international medical graduates into neonatal-perinatal medicine: a critical strategy to meet workforce demands](#) Abstract only*

Item Type: Journal Article

Authors: Velagala, Suganthinie;Gupta, Shruti;Bruno, Christie J. and Johnston, Lindsay C.

Publication Date: // ,2024

Journal: Journal of Perinatology : Official Journal of the California Perinatal Association

There is a severe shortage of pediatric subspecialty providers nationally, with significant geographical maldistribution challenging equitable healthcare access for children [1,2,3,4]. Although neonatal-perinatal medicine (NPM) encompasses over

20% of American Board of Pediatrics (ABP) certified subspecialists, staffing challenges have been highlighted due to the expansion of clinical networks, increasing clinical volume and acuity, and an aging workforce [5, 6]. Needs cannot be sufficiently met by US citizen American medical school graduates [7]. International medical graduates (IMGs), including both US citizen and non-US citizen graduates of international medical institutions, are an essential component of the pediatric workforce. IMGs may hold MD degrees from international schools (17%) or international degrees (20%; e.g., MBBS, MBChB) [3]. IMGs bring valuable diversity to the U.S. physician workforce, including cultural sensitivity and language proficiency, better meeting diverse patient needs [8, 9]. Physician workforce diversity has been linked to improved patient outcomes and enriched educational experiences for medical trainees [10]. Moreover, IMGs are more inclined to practice in rural areas, mitigating geographic disparities in healthcare access [11,12,13].

Education and Training

[Development and Implementation of a Game-Based Neonatal Resuscitation Refresher Training: Effect on Registered Nurse Knowledge, Skills, Motivation, Engagement](#) Abstract only*

Item Type: Journal Article

Authors: Billner-Garcia, R. M. and Spilker, A.

Publication Date: // ,2024

Journal: Journal for Nurses in Professional Development 40(1), pp. 24-28

Abstract: Game-based learning theory and Google Docs Editors suite were used to develop an online, self-directed neonatal resuscitation refresher training for registered nurses to improve their resuscitation knowledge and skills and enhance their learning motivation and engagement. Results indicated that a self-directed, online game-based refresher training was motivating, engaging, and improved nurses' resuscitation

knowledge and skill performance. Nurse professional development practitioners can use similar game-based online materials to enhance learning. Copyright © Lippincott Williams Wilkins.

[Use of digital technologies for staff education and training programmes on newborn resuscitation and complication management: a scoping review](#)

Item Type: Journal Article

Authors: Horiuchi, Sayaka;Soller, Tasmyn;Bykersma, Chloe;Huang, Shan;Smith, Rachel and Vogel, Joshua P.

Publication Date: // ,2024

Journal: BMJ Paediatrics Open 8(1)

Abstract: BACKGROUND: Poor-quality care is linked to higher rates of neonatal mortality in low-income and middle-income countries (LMICs). Limited educational and upskilling opportunities for healthcare professionals, particularly those who work in remote areas, are key barriers to providing quality neonatal care. Novel digital technologies, including mobile applications and virtual reality, can help bridge this gap. This scoping review aims to identify, analyse and compare available digital technologies for staff education and training to improve newborn care., METHODS: We conducted a structured search of seven databases (MEDLINE (Ovid), EMBASE (Ovid), EMCARE (Ovid), Global Health (CABI), CINAHL (EBSCO), Global Index Medicus (WHO) and Cochrane Central Register of Controlled Trials on 1 June 2023. Eligible studies were those that aimed to improve healthcare providers' competency in newborn resuscitation and management of sepsis or respiratory distress during the early postnatal period. Studies published in English from 1 January 2000 onwards were included. Data were extracted using a predefined data extraction format., RESULTS: The review identified 93 eligible studies, of which 35 were conducted in LMICs. E-learning platforms and mobile applications were common technologies used in LMICs for

neonatal resuscitation training. Digital technologies were generally well accepted by trainees. Few studies reported on the long-term effects of these tools on healthcare providers' education or on neonatal health outcomes. Limited studies reported on costs and other necessary resources to maintain the educational intervention., CONCLUSIONS: Lower-cost digital methods such as mobile applications, simulation games and/or mobile mentoring that engage healthcare providers in continuous skills practice are feasible methods for improving neonatal resuscitation skills in LMICs. To further consider the use of these digital technologies in resource-limited settings, assessments of the resources to sustain the intervention and the effectiveness of the digital technologies on long-term health provider performance and neonatal health outcomes are required. Copyright © Author(s) (or their employer(s)) 2024. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

[A Flipped Classroom Pilot in Neonatal Mechanical Ventilation](#)

Item Type: Journal Article

Authors: Mavis, Stephanie C.;Brumbaugh, Jane E.;Carey, William A. and Kelm, Diana J.

Publication Date: // ,2024

Journal: ATS Scholar 5(1), pp. 162-173

Abstract: Background: Pediatric residents frequently manage critically ill neonates but have limited systematic training in mechanical ventilation (MV). Competing demands, varying learner levels, and topic complexity contribute to inconsistent education. A blended learning approach may be ideally suited to achieve meaningful learning but has not been described for this topic and learner., Objective: To design, implement, and evaluate a flipped classroom for pediatric residents in neonatal MV., Methods: We used Kern's six-step framework for curricular development to create a flipped classroom curriculum in neonatal MV. Individual prework included interaction with six

prerecorded animated whiteboard videos, while in-person learning occurred in small groups at the bedside of a ventilated infant. A mixed-methods evaluation included surveys, quantitative knowledge test scores (before, immediately after, and six months after course completion), and qualitative analysis of participant focus groups., Results: Twenty-six learners participated in the curriculum. Mean knowledge test scores rose and were sustained after course completion (51% baseline, 82% immediate posttest, 90% retention; $P < 0.001$). Learners identified various design elements, technology affordances, and instructor factors as meaningful, and they identified unexpected impacts of the curriculum beyond knowledge acquisition, including effects on professional identities, interdisciplinary communication skills, and contribution to the culture of safety., Conclusion: This curriculum aligned with resident roles, was meaningful to learners, and led to long-term increases in knowledge scores and access to quality education; flipped classroom design using meaningful learning theory and leveraging animated whiteboard technology may be a useful strategy for other highly complex topics in graduate medical education. Copyright © 2024 by the American Thoracic Society.

[A hybrid approach to skill retention following neonatal resuscitation training: Assessing effectiveness](#) Abstract only*

Item Type: Journal Article

Authors: Dhungana, R.;Chalise, M.;Visick, M. K. and Clark, R. B.

Publication Date: // ,2024

Journal: Journal of Neonatal-Perinatal Medicine

Abstract: Perinatal death, a global health problem, can be prevented with simple resuscitation interventions that help the baby breathe immediately at birth. Latter-day Saint Charities (LDSC) and Safa Sunaulo Nepal (SSN) implemented a program to scale-up Helping Babies Breathe (HBB) training in Karnali Province, Nepal from January 2020-February 2021. The interventions were implemented using a hybrid approach with

on-site mentoring in the pre/post COVID period combined with remote support and monitoring during the COVID period. This paper reports overall changes in newborn outcomes in relation to the unique implementation approach used. A prospective cohort design was used to compare outcomes of birth cohorts in 16 public health facilities in the first and last three months of program implementation. Results showed significant decreases in intrapartum stillbirths (23%), and neonatal deaths within (27%) and after (41.3%) 24 hours of life. The scale-up of HBB training resulted in 557 providers receiving training and mentoring support during the program period, half trained during the COVID period. Increased practice sessions, review meetings and debriefing meetings were reported during the COVID period compared to pre/post COVID period. The evaluation is suggestive of the potential of a hybrid approach for improved perinatal outcomes and scaling-up of newborn resuscitation trainings in health system facing disruptions

[Impact of resuscitation training program on neonatal outcomes in a region of high socioeconomic vulnerability in Brazil: an interventional study](#) Full text available with NHS OpenAthens account*

Item Type: Journal Article

Authors: Lima, Renato Oliveira de;Marba, Sergio Tadeu Martins;Almeida, Maria Fernanda Branco de and Guinsburg, Ruth

Publication Date: // ,2023

Journal: Jornal De Pediatria 99(6), pp. 561-567

Abstract: OBJECTIVES: This pre/post-intervention study aimed to evaluate neonatal outcomes after the implementation of the Neonatal Resuscitation Program of the Brazilian Society of Pediatrics., METHOD: This interventional study was conducted across five secondary healthcare regions that supported 62 cities in the southwestern mesoregion of Piauí. It included 431 healthcare professionals responsible for neonatal care in the

study region. The participants were trained in neonatal resuscitation through the Neonatal Resuscitation Program of the Brazilian Society of Pediatrics. Delivery room structuring, healthcare professionals' knowledge, and neonatal care outcomes were analyzed immediately before and after intervention and after 12 months between February 2018 and March 2019, and healthcare professionals were evaluated., RESULTS: Training was conducted for over 106 courses. As a participant could take multiple courses, 700 training sessions were conducted. Regarding delivery room structuring, the acquisition of materials required for resuscitation increased from 28.4 to 80.6% immediately after the intervention and to 83.3% after 12 months. Knowledge retention was significant in the post-training period, with a 95.5% approval rate, and knowledge acquisition was satisfactory after 12 months. The number of newborns transferred during the study period increased significantly. A 72.6% reduction in mortality at birth was recorded, and 479 newborns were resuscitated., CONCLUSION: Following the implementation of the Neonatal Resuscitation Program of the Brazilian Society of Pediatrics, structural improvements in delivery rooms, adequate knowledge retention regarding neonatal resuscitation, and a consequent reduction in neonatal mortality were observed. Copyright © 2023. Published by Elsevier Editora Ltda.

Preceptors and the New Neonatal Nurse Practitioner Educational World Abstract only*

Item Type: Journal Article

Authors: Moss, C. R.;Savin, M.;Sharpe, E. and Wallman, C.

Publication Date: // ,2023

Journal: Neonatal Network : NN 42(6), pp. 329-335

Abstract: The need for neonatal nurse practitioner (NNP) preceptors has never been greater. Precepting is a professional responsibility with both rewards and challenges. The recent pandemic has brought about new challenges, not the least of

which is burnout from clinical, learner, and environmental demands. A new educational model from the American Association of Colleges of Nursing and the National Task Force outlines educational and preceptor requirements aimed at improving the advanced practice educational experience for students and preceptors. Available research provides evidence of what preceptors value and how to develop best practices with academic institutions to advocate for their students. This article will discuss new nursing educational models and the role of the NNP preceptor and analyze current best practices in preceptor recruitment and retention while discussing national trends impacting personal and professional NNP practices.© Copyright 2023 Springer Publishing Company, LLC.

An analysis of the global diversity of midwifery pre-service education pathways

Item Type: Journal Article

Authors: Neal, Sarah;Nove, Andrea;Bar-Zeev, Sarah;Pairman, Sally;Ryan, Erin;Ten Hoop-Bender, Petra and Homer, Caroline Se

Publication Date: // ,2023

Journal: Women and Birth : Journal of the Australian College of Midwives 36(5), pp. 439-445

Abstract: BACKGROUND: The development of competent professional midwives is a pre-requisite for improving access to skilled attendance at birth and reducing maternal and neonatal mortality. Despite an understanding of the skills and competencies needed to provide high- quality care to women during pregnancy, birth and the post-natal period, there is a marked lack of conformity and standardisation in the approach between countries to the pre-service education of midwives. This paper describes the diversity of pre-service education pathways, qualifications, duration of education programmes and public and private sector provision globally, both within and between country income groups., METHODS: We present data from 107

countries based on survey responses from an International Confederation of Midwives (ICM) member association survey conducted in 2020, which included questions on direct entry and post-nursing midwifery education programmes., FINDINGS: Our findings confirm that there is complexity in midwifery education in many countries, which is concentrated in low -and middle-income countries (LMICS). On average, LMICs have a greater number of education pathways and shorter duration of education programmes. They are less likely to attain the ICM-recommended minimum duration of 36 months for direct entry. Low- and lower-middle income countries also rely more heavily on the private sector for provision of midwifery education., CONCLUSION: More evidence is needed on the most effective midwifery education programmes in order to enable countries to focus resources where they can be best utilised. A greater understanding is needed of the impact of diversity of education programmes on health systems and the midwifery workforce. Copyright © 2023 The Authors. Published by Elsevier Ltd.. All rights reserved.

[Benefits of an Integrated Nurse Residency Program in the Neonatal Intensive Care Unit: A Review of the Literature](#) Abstract only*

Item Type: Journal Article

Authors: Waggoner, J. K. and Waskosky, A.

Publication Date: // ,2023

Journal: Journal of Perinatal and Neonatal Nursing 37(2), pp. 148-152

Abstract: Background: The neonatal intensive care unit is a specialized unit where nurses, physicians, and other providers take care of the smallest patients in healthcare. Because neonatal intensive care units are highly specialized, many nursing students graduate from undergraduate programs with little experience or knowledge related to the care of neonatal patients. Result(s): Nursing residency programs with hands-on

simulation training have been shown to provide significant benefits to new and novice nurses as they enter the workforce, particularly in areas where the patient population requires highly specialized treatment. The myriad of benefits provided by nurse residency programs and simulation training exercises have been shown to result in improved nurse retention, job satisfaction, nursing skill, and patient outcomes. Conclusion(s): Because of the proven benefits, integrated nurse residency programs and simulation training should be the standard for training new and novice nurses in the neonatal intensive care unit environment. Copyright © 2023 Lippincott Williams and Wilkins. All rights reserved.

[Components of interprofessional education programs in neonatal medicine: A focused BEME review: BEME Guide No. 73](#) Abstract only*

Item Type: Journal Article

Authors: Parmekar, S.;Shah, R.;Gokulakrishnan, G.;Gowda, S.;Castillo, D.;Iniguez, S.;Gallegos, J.;Sisson, A.;Thammasitboon, S. and Pammi, M.

Publication Date: 2022

Journal: Medical Teacher (pagination), pp. no pagination

Abstract: Background: Care delivery in neonatology is dependent on an interprofessional team. Collaborative learning and education amongst professionals can lead to successful management of critically ill patients. This focused BEME review synthesized the components, outcomes, and impact of such interprofessional education (IPE) programs in neonatal medicine. Method(s): The authors systematically searched four online databases and hand-searched MedEdPublish up to 10 September 2020. Two authors independently screened titles, abstracts, full-texts, performed data extraction and risk of bias assessment related to study methodology and reporting. Discrepancies were resolved by a third author. We reported our findings based on BEME guidance and the STORIES

(Structured approach to the Reporting in health education of Evidence Synthesis) statement. Result(s): We included 17 studies on IPE in neonatal medicine. Most studies were from North America with varying learners, objectives, instruction, and observed outcomes. Learners represented nurses, respiratory therapists, neonatal nurse practitioners, patient care technicians, parents, early interventionists, physicians, and medical trainees amongst others. Risk of bias assessment in reporting revealed poor reporting of resources and instructor training. Bias assessment for study methodology noted moderate quality evidence with validity evidence as the weakest domain. IPE instruction strategies included simulation with debriefing, didactics, and online instruction. Most studies reported level 1 Kirkpatrick outcomes (76%) and few reported level 3 or 4 outcomes (23%). Challenges include buy-in from leadership and the negative influence of hierarchy amongst learners. Conclusion(s): This review highlights IPE program components within neonatal medicine and exemplary practices including a multimodal instructional approach, asynchronous instruction, an emphasis on teamwork, and elimination of hierarchy amongst learners. We identified a lack of reporting on program development and instructor training. Future work should address long term knowledge and skill retention and impact on patient outcomes and organizations. Copyright © 2022 AMEE.

[Essentials of neonatal-perinatal medicine fellowship: innovations in medical education](#) Abstract only*

Author(s): Schwarz

Source: Journal of Perinatology 42 pp. 677-682

Publication date: 2022

Due to the changing complex healthcare environment, educational innovation is essential to meet the needs of current and future neonatal-perinatal medicine (NPM) leaders. Greater clinical demands, decreased academic funding, and expanded graduate medical education program requirements have

negatively impacted time for teaching and educational scholarship potentially limiting innovation in the field. By focusing on adult learning principles, embracing technology, and promoting collaboration, today's educators are preparing the next generation of neonatologists. Current innovations include regionalizing simulation boot camps, leveraging virtual learning to increase accessibility, developing niche training opportunities, and incorporating population health principles within existing quality initiatives. Areas in need of additional innovation include faculty and fellow development for teaching skills, expansion of educational networks, and dissemination and financial support of educational scholarship. These efforts and future innovations will require medical institutions and national NPM organizations to further invest in the medical educator as part of their missions.

[E-learning use in the review of neonatal resuscitation program in physicians: a scoping review](#)

Item Type: Journal Article

Authors: Spenard, Sarah; Postolow, Fabiana and Curran, Vernon

Publication Date: // ,2022

Journal: Journal of Perinatology : Official Journal of the California Perinatal Association 42(11), pp. 1527-1532

Abstract: OBJECTIVE: To determine if e-learning interventions are efficient to review Neonatal Resuscitation Program (NRP) and to prevent performance deterioration in neonatal resuscitation of already-certified healthcare professionals., STUDY DESIGN: In this scoping review, we searched for manuscripts published until June 2020 in five databases. We included all studies on e-learning use for NRP review in already-certified healthcare providers., RESULTS: Among 593 abstracts retrieved, 38 full-text articles were assessed for eligibility. Five studies were included. Four studies evaluated the effectiveness of e-learning interventions immediately or months after their completion by providers. These interventions did not consistently enhance their NRP knowledge and their performance. One study

showed that a growth mindset can influence positively neonatal resuscitation performance after an e-learning simulation.,
CONCLUSION: There is not enough evidence to conclude that e-learning interventions can prevent neonatal resuscitation knowledge and performance decay in already-certified providers. More research is needed on the use of e-learning simulation-based scenarios to improve NRP retention. Copyright © 2022. The Author(s), under exclusive licence to Springer Nature America, Inc.

Gaps in palliative care education among Neonatology Fellowship Trainees

Author(s): Wraight et al.

Source: Palliative Medicine Reports 2(1)

Publication date: July 2021

Background: To provide proper care for infants at risk for death, neonatologists need expertise in many areas of palliative care. Although neonatology training programs have implemented a wide variety of palliative care educational programs, the impact of these programs on trainees' skills and effective communication regarding end-of-life issues remains unclear.

Objective: To determine whether neonatology fellowship programs are providing formal palliative care education and assess whether this education is effective at increasing fellows' self-reported comfort with these important skills. Methods: An anonymous survey was sent to program directors (PDs) and fellows of ACGME accredited neonatology fellowship programs in the United States. Using a 5-point Likert scale, participants were asked about the palliative care education they received, and their comfort level with several key aspects of palliative care. Results: Twenty-four (26%) PDs and 66 (33%) fellows completed the survey. Fourteen PDs (58%) reported including palliative care education in their formal fellowship curriculum, whereas only 20 (30%) responding fellows reported receiving palliative care education. Of the responding fellows, most (80%) reported

being uncomfortable or only somewhat comfortable with all assessed areas of palliative care. Fellows who received formal education were more comfortable than those without it in leading goals of care conversations ($p = 0.001$), breaking bad news ($p = 0.048$), discussing change in code status ($p = 0.029$), and grief and bereavement ($p = 0.031$). Conclusions: Most fellows report being uncomfortable or only somewhat comfortable with essential areas of palliative care. Formal palliative care education improves fellows' self-reported comfort with important aspects of end-of-life care. To promote a well-rounded neonatology fellowship curriculum, inclusion of formal palliative care education is recommended.

Workforce and Supply Chain Issues Impacting Neonatal Nursing Care Globally

Item Type: Journal Article

Publication Date: // ,2022

Journal: The Journal of Perinatal & Neonatal Nursing 36(4), pp. 335-336

The International Council of Nurses (ICN) when celebrating International Nurses Day in May 2022, cited that "the greatest threat to global health care is the workforce challenge". This statement follows the ICN's Policy Brief The Global Nursing Shortage and Nurse Retention published in 2021. An estimated 13 million nurses will be needed just to fill the existing gaps and not increase the number of nurses where there are already glaring holes.

Developing newly qualified nurses' confidence within neonatal intensive care

Item Type: Journal Article

Authors: Beynon, J. M.

Publication Date: // ,2022

Journal: Infant 18(1), pp. 8-11

Abstract: Newly-registered nurses can struggle with the transition

from student to practitioner; achieving competence within a critical care area, such as neonatal care, can be particularly challenging. Education is pivotal for nurturing new registrants so that they stay in their specialist area. A neonatal competency framework for new neonatal nurses in their first year of practice was implemented in South Wales. This article discusses the importance of supporting new nurses to develop their knowledge, skills, confidence and competence in neonatal care and why this is important for staff retention. Copyright © 2022 SNL All rights reserved.

Supporting Role Knowledge and Role Transition in Neonatal APRN Students Abstract only*

Item Type: Journal Article

Authors: Carley, Annette and Garrett, Legina

Publication Date: // ,2022

Journal: Neonatal Network : NN 41(3), pp. 168-171

Abstract: Advanced practice registered nurses (APRNs) play a critical role in alleviating provider shortages and expanding access to health care services for medically underserved populations. To meet these shortages, the APRN workforce is growing faster than the average for all occupations. This creates a critical need for effective transitioning from the role of student to APRN provider. Unfortunately, transitioning to the APRN role is not seamless and role confusion or challenges in role exposition can contribute to job stress and even role exodus. A recent quality improvement project supported student understanding of APRN roles and anticipation of role transition challenges for neonatal students preparing for roles as nurse practitioner and clinical nurse specialist. This strategy has the potential to contribute to successful role transition of neonatal nurse practitioner and neonatal clinical nurse specialist students. © Copyright 2022 Springer Publishing Company, LLC.

An evaluation of neonatal nurse professional development in Vietnam

Item Type: Journal Article

Authors: MacVicar, D. S.

Publication Date: // ,2022

Journal: Journal of Neonatal Nursing 28(6), pp. 440-444

Abstract: This is an evaluation of neonatal nurses continued professional development delivered in Vietnam. Course outcomes of participant's academic and clinical performance, nurse feedback and service improvement were mapped to Kirkpatrick's evaluation model. The data showed that the nurses were proficient in technical skills but possessed limited autonomous clinical decision-making ability. The training enhanced their understanding of the evidence base underpinning neonatal care, but their learning experience was restricted by limited academic resources available in Vietnamese. The results of the evaluation concluded that in order to support nurses in constructing their own practice knowledge, the training provided should be founded on their individualised and specific clinical and contextual needs rather than replicating existing programmes. Recommendations for nurse continued professional development consists of building capacity amongst the local nursing workforce to ensure sustainability of learning and enhance clinical outcomes. Copyright © 2022 Neonatal Nurses Association

Components of interprofessional education programs in neonatal medicine: A focused BEME review: BEME Guide No. 73 Abstract only*

Item Type: Journal Article

Authors: Parmekar, S.;Shah, R.;Gokulakrishnan, G.;Gowda, S.;Castillo, D.;Iniguez, S.;Gallegos, J.;Sisson, A.;Thammasitboon, S. and Pammi, M.

Publication Date: // ,2022

Journal: Medical Teacher 44(8), pp. 823-835

Abstract: **BACKGROUND:** Care delivery in neonatology is dependent on an interprofessional team. Collaborative learning and education amongst professionals can lead to successful management of critically ill patients. This focused BEME review synthesized the components, outcomes, and impact of such interprofessional education (IPE) programs in neonatal medicine., **METHODS:** The authors systematically searched four online databases and hand-searched MedEdPublish up to 10 September 2020. Two authors independently screened titles, abstracts, full-texts, performed data extraction and risk of bias assessment related to study methodology and reporting. Discrepancies were resolved by a third author. We reported our findings based on BEME guidance and the STORIES (STructured apprOach to the Reporting in health education of Evidence Synthesis) statement., **RESULTS:** We included 17 studies on IPE in neonatal medicine. Most studies were from North America with varying learners, objectives, instruction, and observed outcomes. Learners represented nurses, respiratory therapists, neonatal nurse practitioners, patient care technicians, parents, early interventionists, physicians, and medical trainees amongst others. Risk of bias assessment in reporting revealed poor reporting of resources and instructor training. Bias assessment for study methodology noted moderate quality evidence with validity evidence as the weakest domain. IPE instruction strategies included simulation with debriefing, didactics, and online instruction. Most studies reported level 1 Kirkpatrick outcomes (76%) and few reported level 3 or 4 outcomes (23%). Challenges include buy-in from leadership and the negative influence of hierarchy amongst learners., **CONCLUSIONS:** This review highlights IPE program components within neonatal medicine and exemplary practices including a multimodal instructional approach, asynchronous instruction, an emphasis on teamwork, and elimination of hierarchy amongst learners. We identified a lack of reporting on program development and instructor training. Future work should

address long term knowledge and skill retention and impact on patient outcomes and organizations.

[Value, Strengths, and Challenges of e-Learning Modules Paired with the Flipped Classroom for Graduate Medical Education: A Survey from the National Neonatology Curriculum.](#) Abstract only*

Item Type: Journal Article

Authors: Gray, M. M.;Dadiz, R.;Izatt, S.;GillamKrauer, M.;Carbajal, M. M.;Falck, A. J.;Bonachea, E. M.;Johnston, L. C.;Karpen, H.;Vasquez, M. M.;Chess, P. R. and French, H.
Publication Date: 2021

Journal: American Journal of Perinatology 38, pp. E187-E192

Abstract: Objective This study aimed to determine the value, strengths, and challenges of implementing an e-learning based flipped classroom (FC) educational modality as part of the standardized physiology National Neonatology Curriculum (NNC), created for neonatal-perinatal medicine (NPM) fellow learners and faculty educators. Study Design This is a cross-sectional study of NPM fellows and faculty educators who utilized at least one of the e-learning based NNC FC respiratory physiology programs between May and September 2018. Participants were surveyed anonymously regarding their experiences participating in the NNC, including measures of preparation time. A combination of descriptive statistics and proportion comparisons were used for data analysis. Results Among 172 respondents, the majority of fellow and faculty respondents reported positive attitudes toward the educational content and case discussions, and the majority supported national standardization of NPM physiology education (92%). Fellows reported greater preclass preparation for their FC compared with previous didactic lectures (30-60 vs. 0-15 minutes, p Copyright © 2021 Thieme Medical Publishers, Inc.. All rights reserved.

Perspectives: The Flipped Classroom in Graduate Medical Education Abstract only*

Item Type: Journal Article

Authors: French, Heather; Arias-Shah, AnnaMarie; Gisondo, Carly and Gray, Megan M.

Publication Date: 2020

Journal: Neoreviews 21(3), pp. e150-e156

Abstract: Andragogy, the art and science of helping adults learn, is a learner-centric conceptual framework that considers adult learner characteristics and their motivations for learning. These motivations range from internal will, readiness to learn, and relevance to one's own life. The flipped classroom, an increasingly popular educational method for both learners and educators, aligns with an andragogical approach as it uses classroom time for application of knowledge and critical thinking rather than for a passive didactic lecture. The growing body of educational research demonstrating increased performance and knowledge retention using this method has led to its incorporation into graduate medical education materials, including the National Neonatology Curriculum. In this article, the authors review how the flipped classroom, an active educational method that embraces the tenets of adult learning theory, may be more effective in graduate medical education compared with traditional lecture. Copyright © 2020 by the American Academy of Pediatrics.

Effect of 24/7 attending coverage in the neonatal intensive care unit on fellow education.

Item Type: Journal Article

Authors: Sahni, M. and Mowes, A.

Publication Date: 2020

Journal: BMC Medical Education 20(1), pp. no pagination

Abstract: Background: There is a current change in type of attending coverage in the Neonatal Intensive Care Unit (NICU) from home calls to 24/7 in house coverage. Effects of this

increased attending physician presence on education of NICU fellows has not been studied. The objective of this study is to evaluate the fellows' perception of in house attending coverage on their education and evaluate its effect on their perceived autonomy. Method(s): A secure, anonymous, web-based survey was designed using RedCap. The web-based survey was sent via the section of Neonatal Perinatal Medicine of the American Academy of Pediatrics, to all members of Training & Early Career Neonatologists. Questions were focused on perception of IH attending coverage on fellows' educational experience including the respondent's perceived ability to make independent decisions (autonomy). Chi-square tests were used to compare responses between groups, with Fisher Exact tests used when the expected cell frequencies were small. Result(s): One hundred and twenty-three surveys were analyzed, that included responses from 82 fellows & 41 early career neonatologists. 52% reported having 24/7 attending in-house (IH) coverage. Thirty of the 123 respondents experienced a change in model of attending coverage during their training. Among these 30, only 26.6% preferred the model of attending IH coverage. The respondents currently working in IH models, when compared to those in non-IH coverage models felt IH attending coverage was beneficial for fellow education (p < 0.05). Conclusion(s): In our survey respondents with in house attending, had a more favorable view of its benefit on fellow education. Institutions practicing or considering IH attending coverage should consider use of adequate measures to balance

fellow supervision and education. Copyright © 2020, The Author(s).

Families as educators: a family-centered approach to teaching communication skills to neonatology fellows. Abstract only*

Item Type: Journal Article

Authors: Parham, D.; Reed, D.; Olicker, A.; Parrill, F.; Sharma, J.; Brunkhorst, J.; NoelMacDonnell, J. and Voos, K.

Publication Date: 2019

Journal: Journal of Perinatology 39(10), pp. 1392-1398

Abstract: Objective: To determine whether the use of family members as educators in a structured educational intervention would increase neonatology fellows' confidence in performing core communication skills targeted to guide family decision-making. Study Design: Neonatology fellows at two centers participated in simulation-based training utilizing formally trained family members of former patients. Fellows completed self-assessment surveys before participating, immediately following participation, and 1-month following the training. Family members also evaluated fellow communication. Result(s): For each core competency assessed, there was a statistically significant increase in self-perceived preparedness from pre-course to post-course assessments. Fellows additionally endorsed using skills learned in the curriculum in daily clinical practice. Family educators rated fellow communication highest in empathetic listening and nonverbal communication.

Conclusion(s): Participation in a communication skills curriculum utilizing formally trained family members as educators for medical trainees successfully increased fellows' self-perceived preparedness in selected core competencies in communication. Family educators provided useful, generalizable feedback. Copyright © 2019, The Author(s), under exclusive licence to Springer Nature America, Inc.

Education, training, and accreditation of Neonatologist Performed Echocardiography in Europe – framework for practice

Author(s): Singh et al.

Source: Paediatric Research 84 pp. 13-17

Publication date: August 2018

There is a growing interest worldwide in using echocardiography in the neonatal unit to act as a complement to the clinical assessment of the hemodynamic status of premature and term infants. However, there is a wide variation in how this tool is implemented across many jurisdictions, the level of expertise, including the oversight of this practice. Over the last 5 years, three major expert consensus statements have been published to provide guidance to neonatologists performing echocardiography, with all recommending a structured training program and clinical governance system for quality assurance. Neonatal practice in Europe is very heterogeneous and the proximity of neonatal units to pediatric cardiology centers varies significantly. Currently, there is no overarching governance structure for training and accreditation in Europe. In this paper, we provide a brief description of the current training recommendations across several jurisdictions including Europe, North America, and Australia and describe the steps required to achieve a sustainable governance structure with the responsibility to provide accreditation to neonatologist performed echocardiography in Europe.

Training in research competencies: a strategy for neonatology

Author(s): Gopi et al.

Source: Archives of Disease in Childhood 102(1)

Publication date: February 2017

The report 'Turning the tide' highlighted the need to increase the capacity for clinical research in child health. 1 The increase in training posts funded by the National Institute for Health Research (NIHR) will slow the fall in academic consultant positions. 2 The rapid growth in clinical trials in neonatology (

figure 1), however, means that all neonatal professionals need to have the necessary awareness and skills. Research involvement within a clinical service should be considered a sign of healthcare quality. 3 With the separation of academic and clinical specialist training, most trainees have little involvement in research 4 and proposed changes could make this worse. 5 The paediatric curriculum does include research skills that are currently being refined and linked to assessment of competencies by the Royal College of Paediatrics and Child Health (RCPCH). There is, however, no easily accessible training, and it is thus not surprising that trainees lack confidence in this area. 1 Nurses are the primary source of information for parents of babies in neonatal units 6 and are thus potentially important advocates for research. Nurse training curricula include no research competencies, although the specific roles of the clinical research nurse and nurse researcher have recently been defined. 7

[Mapping the nursing competences in neonatology: a qualitative research.](#)

Item Type: Journal Article

Authors: Alfieri, Emanuela;Alebbi, Alessia;Bedini, M.

Giovanna;Boni, Laura and Foa, Chiara

Publication Date: 07 18 ,2017

Journal: Acta Bio-Medica De L Ateneo Parmense 88(3S), pp. 51-58

Abstract: BACKGROUND AND AIM: There are several studies that support the importance of advanced expertise and specialization of the neonatal pediatric nurse. However, proceeding with a analysis of the scientific literature regarding the nursing advanced competence in neonatology, very few studies specify and define these competences. The aim of the study is investigate and analyze skills, tasks and responsibilities of the neonatal pediatric nurse, to map a "neonatal nurse competence profile", offered from the points of view of the

Neonatology Units professionals. METHODS: 32 professionals (nurses, physicians, psychologists, healthcare assistants) operating in the Neonatal Intensive Care Unit of two Italian Hospitals were interviewed. The semi-structured interviews have been performed, transcribed and analyzed following the Levati's model (based on Activity, Expectations and Evaluation system). RESULTS: About the nurses activities, the participants underlined the newborn care, the care of the caregiver and the "bureaucratic" activities. About the system of expectations, the participants marked on specific skills but those are described only comprehensively. About the evaluation system there are different perceptions among the professionals, but the nurses themselves feel that they have to answer for their actions primarily to infants and families, indicating a sense of responsibility towards the patients. CONCLUSIONS: On the basis of the interviews a profile of a neonatal nurse competences has been drawn up. This consists of 42 competences that future studies can further specify, integrate and expand.

Equality, Diversity and Training

[Illuminating the path towards inclusivity: strategies to improve workforce diversity in neonatal-perinatal medicine](#)

Item Type: Journal Article

Authors: Boyd, C.;Myers, P.;Gray, M. M. and Johnston, L. C.

Publication Date: // ,2023

Journal: Journal of Perinatology 43(4), pp. 415-416

An urgent priority for the neonatal-perinatal medicine (NPM) workforce is enhancing diversity, specifically increasing the representation of underrepresented (URM) providers in medicine. It is known that the patient outcomes are much better when there is ethnic concordance between the patients and their physician providers [1]. Major interventions are necessary to enhance diversity in the healthcare workforce. These include increasing youth engagement in medicine, addressing

inequitable recruitment practices, and cultivating inclusive training environments. In particular, a reform is urgently needed in recruitment practices. The number of URM candidates applying for medical schools has decreased over the past decade [2], along with a decline among those entering pediatrics and subsequently specializing in NPM [3]. Those who review medical school applications have historically focused on the reputation of the training institution, the scores achieved in standardized examinations, and research/ scholarly experiences. These elements are markedly skewed against the candidates from historically disadvantaged backgrounds, reducing the numbers of URM candidates to be successfully recruited into pediatric specialties for the care of children from all backgrounds [4].

Racial and Ethnic Composition of Neonatal Nurse Practitioner Faculty and Students in the United States Abstract only*

Item Type: Journal Article

Authors: Newberry, Desi M. and Bell, Tracey

Publication Date: // ,2023

Journal: Advances in Neonatal Care : Official Journal of the National Association of Neonatal Nurses 23(2), pp. 132-139

Abstract: BACKGROUND: Neonatal nurse practitioners have a strong presence in the neonatal intensive care unit and are primed to lead efforts to induce change related to health disparities. Underrepresented minority nurse practitioners offer valuable perspectives in the care of underrepresented minority patients. However, there remains a current racial and ethnic discordance between neonatal providers and patients. Efforts to eliminate health disparities must begin before nursing school. The current racial and ethnic composition of neonatal nurse practitioner faculty in comparison to students in the United States is unknown., PURPOSE: The purpose of this study was to determine the racial and ethnic composition of neonatal nurse practitioner faculty and students in the United States and

contrast this data with available data for the racial and ethnic composition of the neonatal intensive care unit patient population., METHODS: This cross-sectional study used a nonexperimental survey to describe the racial and ethnic composition of neonatal nurse practitioner faculty and students in the United States., RESULTS: There was no significant difference in the racial and ethnic composition between neonatal nurse practitioner faculty and students. There were significant differences for all race distributions between neonatal nurse practitioner students and neonatal intensive care unit admissions., IMPLICATIONS FOR PRACTICE AND RESEARCH: The discordance between neonatal nurse practitioner students and neonates in the neonatal intensive care unit is important in addressing disparities and begins before nursing school. Identification of barriers and strategies for recruitment and retention of underrepresented minority nursing students and faculty is needed., VIDEO ABSTRACT AVAILABLE AT: <https://journals.lww.com/advancesinneonatalcare/pages/video.aspx?v=62>. Copyright © 2023 by The National Association of Neonatal Nurses.

Recommendations to improve recruitment and retention of underrepresented in medicine trainees in neonatal-perinatal medicine Full text available with NHS OpenAthens account*

Item Type: Journal Article

Authors: Pena, M. -M;Bonachea, E.;Bell, M.;Duara, J.;Okito, O.;Barrero-Castillero, A. and Anani, U. E.

Publication Date: // ,2023

Journal: Journal of Perinatology 43(4), pp. 540-545

Abstract: Physicians who identify as Black, Latinx, American Indian, Pacific Islander, and certain Asian subgroups represent racial and ethnic populations that are underrepresented in medicine (URM). While the proportion of URM pediatric trainees has remained unchanged, that of Neonatal-Perinatal Medicine (NPM) fellows has decreased. Informed by the medical literature

and our lived experiences, we compiled and developed a list of recommendations to support NPM fellowship programs in the recruitment, retention, and promotion of URM trainees. We describe ten recommendations that address 1) creating a culture of inclusivity and psychological safety, 2) the critical appraisal of recruitment practices and climate, and 3) an inclusive and holistic fellowship application process. The first two themes lay the foundation, while the final theme spotlights our recommendations for URM recruitment. Each recommendation is a step towards improvement in recruitment and inclusion at a program. Copyright © 2022, The Author(s), under exclusive licence to Springer Nature America, Inc.

Seeking racial and ethnic equity among neonatologists

Author(s): Horowitz et al.

Source: Journal of Perinatology 41 pp. 422-434

Publication date: 2021

Objective Racial and ethnic inequities in leadership achievement, compensation, scholarly productivity, and grant funding exists among physicians. This study explores whether similar inequities exist among neonatologists within the United States. Study design A voluntary anonymous survey was distributed to members of the American Academy of Pediatrics Section on Neonatal–Perinatal Medicine with 560 respondents. Logistic regression and ordinary least squares were used to assess whether racial and ethnic identity is associated with clinical time, leadership, compensation, publication, grant funding, or academic rank. Results As compared to non-Hispanic White neonatologists, statistical differences were found for underrepresented minorities in medicine in: regions of the country where they worked, total cash compensation received, being awarded an NIH grant, and location of graduate medical education. Fewer differences were found for Asian neonatologists and included location of graduate medicine education. Conclusion Racial and ethnic identity remains a

significant independent factor influencing professional achievement and compensation.

Learning from Covid-19

Effect of Coronavirus Disease-2019 on the Workload of Neonatologists.

Item Type: Journal Article

Authors: Machut, Kerri Z.;Kushnir, Alla;Oji-Mmuo, Christiana N.;Kataria-Hale, Jasmeet;Lingappan, Krithika;Kwon, Soyang and Dammann, Christiane E. L.

Publication Date: Mar ,2022

Journal: Journal of Pediatrics 242, pp. 145-151.e1

Abstract: OBJECTIVE: To describe the impact of coronavirus disease-2019 (COVID-19) on the neonatology workforce, focusing on professional and domestic workloads. STUDY DESIGN: We surveyed US neonatologists in December 2020 regarding the impact of COVID-19 on professional and domestic work during the pandemic. We estimated associations between changes in time spent on types of professional and domestic work and demographic variables with multivariable logistic regression analyses. RESULTS: Two-thirds (67.6%) of the 758 participants were women. Higher proportions of women than men were in the younger age group (63.3% vs 29.3%), held no leadership position (61.4% vs 46.3%), had dependents at home (68.8% vs 56.3%), did not have a partner or other adult at home (10.6% vs 3.2%), and had an employed partner (88.1% vs 64.6%) (P Copyright © 2021 Elsevier Inc. All rights reserved.

Sustaining careers of physician-scientists in neonatology and pediatric critical care medicine: formulating supportive departmental policies

Item Type: Journal Article

Authors: Christou, Helen;Dizon, Maria L. V.;Farrow, Kathryn N.;Jadcherla, Sudarshan R.;Leeman, Kristen T.;Maheshwari,

Akhil;Rubin, Lewis P.;Stansfield, Brian K. and Rowitch, David H.
Publication Date: 2016

Journal: Pediatric Research 80(5), pp. 635-640

Abstract: Understanding mechanisms of childhood disease and development of rational therapeutics are fundamental to progress in pediatric intensive care specialties. However, Division Chiefs and Department Chairs face unique challenges when building effective laboratory-based research programs in Neonatal and Pediatric Intensive Care, owing to high clinical demands necessary to maintain competence as well as financial pressures arising from fund flow models and the current extramural funding climate. Given these factors, the role of institutional support that could facilitate successful transition of promising junior faculty to independent research careers is ever more important. Would standardized guidelines of such support provide greater consistency among institutions? We addressed preliminary questions during a national focus group, a workshop and a survey of junior and senior academicians to solicit recommendations for optimal levels of protected time and resources when starting an independent laboratory. The consensus was that junior faculty should be assigned no more than 8 wk clinical service and should obtain start-up funds of \$500K-1M exclusive of a 5-y committed salary support. Senior respondents placed a higher premium on protected time than junior faculty.

Medical Associate Professions (MAPs)

[Introducing physician associates: A new wave of health professionals in neonatology](#) Full text available with NHS OpenAthens account*

Item Type: Journal Article

Authors: Tanney, K.;Tapping-Upton, H. and Edi-Osagie, N.

Publication Date: // ,2023

Journal: Archives of Disease in Childhood: Fetal and Neonatal

Edition 108(5), pp. 440-441

St Mary's Hospital (SMH), Manchester, is home to one of the busiest neonatal units in the UK, with 69 cots providing all levels of neonatal care. As a tertiary referral centre for surgical, cardiac and specialist medical babies in the North West, there is a wide range of activity with many babies requiring complex care. There is therefore a need for a comprehensive and consistent workforce providing high-quality care. This neonatal intensive care unit (NICU) has benefited from having a blended workforce of what would traditionally have been considered medical rotas, with trainee and locally appointed doctors working on tiers 1 and 2, advanced neonatal nurse practitioners working on tier 1 and band 6 enhanced neonatal nurse practitioners working in high-dependency unit (HDU) and special care (SCBU). However, rota gaps, less than full-time training and recruitment challenges led to understaffed rotas, while nurses choosing to become nurse practitioners meant losing experienced cot-side neonatal nurses.

Retention

[Growing the Neonatal Nurse Practitioner Workforce Through Mentoring: A Scoping Review](#) Abstract only*

Item Type: Journal Article

Authors: Baker, Lela A.;Moss, Colleen;Bordelon, Curry and Savin, Michele K.

Publication Date: // ,2024

Journal: The Journal of Perinatal & Neonatal Nursing 38(2), pp. 184-191

Abstract: OBJECTIVE: The purpose of this article is to highlight evidence specific to the neonatal nurse practitioner (NNP) workforce related to successful mentoring programs. Specifically, the authors of this article explored recent evidence of mentorship to improve job satisfaction and retention of the NNP workforce., BACKGROUND: NNPs are valuable members of neonatal

healthcare team. Because of the aging NNP workforce, methods to recruit, train, mentor, develop, and retain new NNPs are imperative., METHODS: Using a quality appraisal tool from the PRISMA extension for scoping reviews, articles were identified through electronic database searches using search terms related to mentoring, nurse practitioners, recruitment, and retention. Studies published in English between 2013 and 2023 were included. Peer-reviewed quantitative and qualitative articles were synthesized and critically appraised by 4 reviewers., RESULTS: The authors identified 46 articles with a focus on mentoring in nursing of which 12 articles include mentoring for nurse practitioners. Research indicates that mentoring relationships are valuable in many healthcare roles and professions. Evidence is limited indicating the impact of mentoring in the highly specialized role of the NNP., CONCLUSION: Mentoring is an invaluable component of professional nursing and counters incivility while advancing competency, job satisfaction, and retention. Additional research is needed regarding NNP-specific mentoring programs. Copyright © 2024 Wolters Kluwer Health, Inc. All rights reserved.

Examining Job Satisfaction and Intent to Stay for Neonatal Nurse Practitioners: The Impact of Mentoring Abstract only*

Item Type: Journal Article

Authors: Moss, Colleen Reilly

Publication Date: // ,2022

Journal: Advances in Neonatal Care : Official Journal of the National Association of Neonatal Nurses 22(4), pp. 341-351

Abstract: BACKGROUND: In 2017, the National Association of Neonatal Nurse Practitioners (NANNP) recommended that organizations implement formalized mentoring programs for neonatal nurse practitioners (NNPs). There is significant evidence to support that mentoring positively impacts nurse practitioners' job satisfaction and retention. However, there is a lack of evidence-based literature specific to NNP mentoring.,

PURPOSE: Determine the impact of participation in the NANNP formalized mentoring program on job satisfaction and retention for novice and experienced NNPs in an academic medical center in Tennessee., METHODS: This quality improvement project utilized a secure online survey that included the Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS) and 2 intent-to-stay items prior to implementation of a 6-month mentoring program. Neonatal intensive care unit nurse practitioners completed the same electronic survey at 3 intervals after program implementation to determine the impact of the mentoring program on job satisfaction and intent to stay., RESULTS: Project results identified a significant difference in MNPJSS scores for participants in a 6-month formal mentoring program using the NANNP tool kit. The MNPJSS scores moderately correlated with intent to stay at 1 year and strongly correlated with intent to stay at 3 years., IMPLICATIONS FOR PRACTICE: The results of this project support the positive impact of a formalized mentoring program on job satisfaction for new graduate nurse practitioners. Recognizing the challenge to recruit and retain NNPs, organizations should explore creative solutions to develop and support formalized mentoring programs., IMPLICATIONS FOR RESEARCH: Further research is warranted to validate use of the NANNP tool kit in the establishment and evaluation of a formalized mentoring program. Video abstract available at: https://journals.lww.com/advancesinneonatalcare/Pages/video_gallery.aspx . Copyright © 2021 by The National Association of Neonatal Nurses.

Neonatal nurse practitioner job satisfaction, workforce environment, and mental well-being Abstract only*

Item Type: Journal Article

Authors: Snapp, Barbara; McCutcheon, Elizabeth Welch; Moore, Tiffany A. and Teel, Dedra

Publication Date: // ,2022

Journal: Journal of the American Association of Nurse Practitioners 34(9), pp. 1058-1065

Abstract: BACKGROUND: Increased demand for nurse practitioners emphasizes the importance of consistent and ongoing collection of data to provide a better understanding of the NNP workforce and to promote retention and recruitment of NNPs., PURPOSE: To understand how work environment and work hours influence job or career satisfaction., METHODOLOGY: The National Association of Neonatal Nurse Practitioners in collaboration with the National Certification Corporation emailed an online survey to all 6,558 certified neonatal nurse practitioners (NNPs) in 2020 with 845 (12.8%) responding. Subjects included those with responsibilities in direct patient care, transport NPs, faculty/directors, and advanced practice registered nurse coordinators/managers/administrators., RESULTS: Satisfaction with career choice as an NNP was reported as very satisfied by 58% (n = 493) and mostly satisfied by 37% (n = 310). Satisfaction with current job as an NNP was reported as very satisfied for 30% (n = 252), with 51% being mostly satisfied (n = 435). Age influenced satisfaction scores, with NNPs aged 61 years or older having a higher mean score than NNPs aged 31-40 years (p = .041). The majority of NNPs did not use all of their available paid time off (72%; n = 609) and respondents worked an additional 248 extra hours per year. NNPs experience bullying (58%) and/or lateral violence (32%). Seventeen percent have called in sick for mental health reasons (n = 147)., CONCLUSIONS: Neonatal nurse practitioners' satisfaction is multifactorial. Those who reported taking time off for self-prescribed mental health indicated less job satisfaction, more work hours, poor work/life balance, and a less-than-optimum work environment., IMPLICATIONS: Overall, NNPs are satisfied with their career choice but are less satisfied with their job choice. Understanding factors that influence mental well-being and job satisfaction will improve recruitment and retention

of nurse practitioners. Copyright © 2022 American Association of Nurse Practitioners.

Simulation

[Acquisition of Behavioral Skills after Manikin-Based Simulation of Neonatal Resuscitation by Fellows in Neonatology](#) Abstract only*

Item Type: Journal Article

Authors: Guerreiro, M. D. M.;Ogata, J. F. M.;Sanudo, A.;Prestes, A. C. Y.;Conzi, M. F.;Kawakami, M. D.;Miyoshi, M. H.;Almeida, M. F. B. D. and Guinsburg, R.

Publication Date: // ,2024

Journal: American Journal of Perinatology 41(8), pp. 1094-1102

Abstract: Objective Behavioral performance of health professionals is essential for adequate patient care. This study aimed to assess the behavioral skills of fellows in neonatology before and after a simulation training program on neonatal resuscitation. Study Design From March 2019 to February 2020, a prospective cohort with 12 second-year fellows in neonatology were evaluated during three training cycles (16 hours each) in manikin-based simulation of neonatal resuscitation with standardized scenarios. Each cycle lasted 1 month, followed by a 3-month interval. One video-recorded scenario of approximately 10 minutes was performed for each fellow at the beginning and at the end of each training cycle. Therefore, each fellow was recorded six times, before and after each one of three training cycles. Anxiety of the fellows was assessed by the Beck Anxiety Inventory applied before the first training cycle. The videos were independently analyzed in a random order by three trained facilitators using the Behavioral Assessment Tool. The behavioral performance was evaluated by repeated measures of analysis of variance adjusted for anxiety and for previous experience in neonatal resuscitation. Results Fellows' overall behavioral performance improved comparing the moment before the first training and after the second training. The specific skills,

such as communication with the team, delegation of tasks, allocation of attention, use of information, use of resources, and professional posture, showed a significant improvement after the second month of training. No further gains were noted with the third training cycle. Anxiety was observed in 42% of the fellows and its presence worsened their behavioral performance. Conclusion An improvement in behavioral performance was observed, comparing the moment before the first training and after the second training, without further gains after the third training. It is worth noting the important role of anxiety as a modulator of acquisition and retention of behavioral skills in health professionals in training. Key Points Simulation training should improve technical and behavioral skills of providers Behavioral skills improve after a first cycle of training, but not after a repeat cycle Anxiety modulates trainees' behavioral performance. Copyright © 2024 Thieme Medical Publishers, Inc.. All rights reserved.

Student Simulation Professional Development: Adding Value to the Pediatric/Neonatal Clinical Nurse Specialist Role Abstract

only* Item Type: Journal Article

Authors: Mohr, L. D.;Lawrence, C. and Schafer, K. M.

Publication Date: // ,2024

Journal: Clinical Nurse Specialist 38(2), pp. 110-112

Simulation, a “structured activity that represents actual or potential situations in education, practice, and research,”¹(p58) is a common teaching-learning strategy used in healthcare. Using modalities including realistic computerized full-body manikins, trained actors, procedural task trainers, and virtual reality, simulation provides healthcare providers safe experiences that do not put actual patients at risk.² Patient safety concerns^{3,4} and COVID-19 pandemic effects^{5,6} highlight the need to use simulation to address low-frequency high-risk events, increase clinical skills, facilitate interprofessional collaboration, and improve patient outcomes.

Effect of repeat refresher courses on neonatal resuscitation skill decay: an experimental comparative study of in-person and video-based simulation training

Item Type: Journal Article

Authors: McCaw, Julia M.;Yelton, Sarah E. Gardner;Tackett, Sean A.;Rapal, Rainier M. L. L.;Gamalinda, Arianne N.;Arellano-Reyles, Amelia;Tupas, Genevieve D.;Derecho, Ces;Ababon, Fides;Edwardson, Jill and Shilkofski, Nicole A.

Publication Date: // ,2023

Journal: Advances in Simulation (London, England) 8(1), pp. 7

Abstract: Neonatal deaths are a major contributor to global under-5-year-old mortality. Training birth attendants can improve perinatal outcomes, but skills may fade over time. In this pilot study, we assessed skill decay of nursing students after remote video versus in-person resuscitation training in a low-resource setting. Filipino nursing students (n = 49) underwent traditional, in-person simulation-based Helping Babies Breathe (HBB) training in Mindanao, Philippines. Participants were then assigned to receive refresher training at 2-month intervals either in-person or via tele-simulation beginning at 2 months, 4 months, or 6 months after initial training. A knowledge examination and practical examination, also known as objective structured clinical examination B in the HBB curriculum, were administered before retraining to assess knowledge and skill retention at time of scheduled follow-up. Time to initiation of bag-mask ventilation (BMV) in seconds during simulated birth asphyxia was the primary outcome. Skill decay was evident at first follow-up, with average time to BMV increasing from 56.9 (range 15-87) s at initial post-training to 83.8 (range 32-128) s at 2 months and 90.2 (range 51-180) s at 4 months. At second follow-up of the 2-month group, students showed improved pre-training time to BMV (average 70.4; range 46-97 s). No statistical difference was observed between in-person and video-trained students in time to BMV. Because of COVID-19 restrictions, the 6-month follow-

up was not completed. We conclude that remote video refresher training is a reasonable alternative to traditional in-person HBB training. Our study also suggests that refreshers may be needed more frequently than every 2 months to mitigate skill decay. Additional studies are necessary to assess the longitudinal impact of tele-simulation on clinical outcomes. Copyright © 2023. The Author(s).

[Effect of training using high-versus low-fidelity simulator mannequins on neonatal intubation skills of pediatric residents: a randomized controlled trial](#)

Item Type: Journal Article

Authors: Al-Wassia, H.;Bamehriz, M.;Atta, G.;Saltah, H.;Arab, A. and Boker, A.

Publication Date: // ,2022

Journal: BMC Medical Education 22(1), pp. 497

Abstract: Background: Mounting evidence supports the effective acquisition of skills through simulation-based training including intubation skills of neonates. Our aim is to compare the effect of using high- versus low-fidelity mannequin simulation-based training on the acquisition and retention of neonatal intubation skills by junior pediatric residents. Method(s): Randomized controlled trial involving first- and second-year pediatric residents from two centers in Jeddah, Saudi Arabia. Result(s): Twenty-eight junior pediatric residents (12 low- and 16 high-fidelity mannequins) completed the study. A significantly greater number of residents achieved and retained the required skills after completing the training course in both arms. There was no significant difference in the achieved skills between residents trained on high- versus low-fidelity mannequins at the baseline, immediately after training, and at 6-9 months after training. Conclusion(s): Simulation-based training resulted in improving pediatric residents' intubation skills regardless of the level of fidelity. Copyright © 2022, The Author(s).

[Preparing Neonatal Nurses for Improved Performance, Professional Development, and National Certification Through Simulation](#) Abstract only*

Item Type: Journal Article

Authors: Zebreski, Laura;Bloodgood, Katherine and Wyble, Kimberlee

Publication Date: // ,2022

Journal: Advances in Neonatal Care : Official Journal of the National Association of Neonatal Nurses 22(4), pp. E131-E136
Abstract: BACKGROUND: Code and emergent situations require skilled nursing response wherever they occur. Nurse preparation for code response is an ongoing need in nursing education. The Neonatal Intensive Care Unit (NICU) at Parkland Health and Hospital System in Dallas, Texas, has a team of 3 nurse educators. These educators determined the need for increased nurse confidence, skill, and response in code and emergent situations within the NICU. The education team also recognized the need to increase nurse involvement in professional development activities and preparation for the national certification examination., PURPOSE: The purpose of this article is to describe how a NICU education team, in a level III NICU, trained nurses using simulated scenarios to improve nursing knowledge for national certification, skill, and confidence in code situations and to provide ongoing professional development opportunities within a controlled learning environment., METHODS: The intervention designed to meet these specific goals for the NICU was the creation of a simulation team (called the "Drill Team") to facilitate simulated activities created by the NICU education team. This simulation strategy was found to have multiple advantages for content delivery, as multiple learning styles can be incorporated into the simulated activities., FINDINGS: Nurses demonstrated improved performance, knowledge acquisition, and knowledge retention after the Drill Team project. Nursing confidence in code performance also increased using this intervention., IMPLICATIONS FOR

PRACTICE: This educational intervention can be replicated and utilized in nursing education for all specialties., **IMPLICATIONS FOR RESEARCH:** Further research could be conducted to determine the effectiveness of simulated activities and national certification pass rates. Copyright © 2021 by The National Association of Neonatal Nurses.

Telesimulation as a modality for neonatal resuscitation training

Author(s): Mileder et al.

Source: Medical Education Online 26(1)

Publication date: February 2021

Introduction: Telesimulation may allow simulationists to continue with essential simulation-based training programs during the COVID-19 pandemic. Hence, we investigated the feasibility of telesimulation for neonatal resuscitation training, assessed participants' attitudes towards telesimulation as well as its effect on neonatal resuscitation knowledge, and compared results between medical students and neonatal nurses. **Methods:** For this prospective observational pilot study, medical students and neonatal nursing staff were recruited on a voluntary basis. Pre- and post-training knowledge was assessed using a 20-question questionnaire. Following the educational intervention, participants further answered a six-item questionnaire on their perception of telesimulation. For the telesimulation session, participants received a simulation package including a low-fidelity mannequin and medical equipment. The one-hour telesimulation session was delivered by an experienced instructor and broadcasted via Cisco Webex for groups of 2–3 participants, covering all elements of the neonatal resuscitation algorithm and including deliberate technical skills practice. **Results:** Nine medical students and nine neonatal nurses participated in a total of seven telesimulation sessions. In general, participants enjoyed the telesimulation session, acknowledged a positive learning effect and found telesimulation suitable for neonatal resuscitation training, but were critical of

potential technical issues, training logistics, and the quality of supervision and feedback. Neonatal resuscitation knowledge scores increased significantly after the educational intervention both for medical students and nurses. **Conclusions:** Telesimulation is feasible for neonatal resuscitation training and associated with significant improvements in knowledge of current resuscitation guidelines, without differences between medical students and neonatal nurses.

Educational efficacy of high-fidelity simulation in neonatal resuscitation training: a systematic review and meta-analysis

Item Type: Journal Article

Authors: Huang, Jichong;Tang, Ying;Tang, Jun;Shi, Jing;Wang, Hua;Xiong, Tao;Xia, Bin;Zhang, Li;Qu, Yi and Mu, Dezhi

Publication Date: Aug 29 ,2019

Journal: BMC Medical Education 19(1), pp. 323

Abstract: **BACKGROUND:** The training of neonatal resuscitation is an important part in the clinical teaching of neonatology. This study aimed to identify the educational efficacy of high-fidelity simulation compared with no simulation or low-fidelity simulation in neonatal resuscitation training. **METHODS:** The PubMed, EMBASE, Cochrane Library, ClinicalTrials.gov, Chinese databases (CBM, CNKI, WanFang, and Weipu), ScopeMed and Google Scholar were searched. The last search was updated on April 13, 2019. Studies that reported the role of high-fidelity simulation in neonatal resuscitation training were eligible for inclusion. For the quality evaluation, we used the Cochrane Risk of Bias tool for RCTs and Risk Of Bias In Non-randomized Studies of Interventions (ROBINS-I) tool for non-RCTs. A standardized mean difference (SMD) with a 95% confidence interval (CI) was applied for the estimation of the pooled effects of RCTs. **RESULTS:** Fifteen studies (10 RCTs and 5 single arm pre-post studies) were ultimately included. Performance bias existed in all RCTs because participant blinding to the simulator is impossible. The assessment of the risk of bias of single arm

pre-post studies showed only one study was of high quality with a low risk of bias whereas four were of low quality with a serious risk of bias. The pooled results of single arm pre-post studies by meta-analysis showed a large benefit with high-fidelity simulation in skill performance (SMD 1.34; 95% CI 0.50-2.18). The meta-analysis of RCTs showed a large benefit in skill performance (SMD 1.63; 95% CI 0.49-2.77) and a moderate benefit in neonatal resuscitation knowledge (SMD 0.69; 95% CI 0.42-0.96) with high-fidelity simulation when compared with traditional training. Additionally, a moderate benefit in skill performance (SMD 0.64; 95% CI 0.06-1.21) and a small benefit was shown in knowledge (SMD 0.39; 95% CI 0.08-0.71) with high-fidelity simulation when compared with low-fidelity simulation. CONCLUSIONS: Improvements of efficacy were shown both in resuscitation knowledge and skill performance immediately after training. However, in current studies, the long-time retention of benefits is controversial, and these benefits may not transfer to the real-life situations.

[Cost-effective and low-technology options for simulation and training in neonatology](#) Abstract only*

Item Type: Journal Article

Authors: Bruno, Christie J. and Glass, Kristen M.

Publication Date: 2016

Journal: Seminars in Perinatology 40(7), pp. 473-479

Abstract: The purpose of this review is to explore low-cost options for simulation and training in neonatology. Numerous cost-effective options exist for simulation and training in neonatology. Lower cost options are available for teaching clinical skills and procedural training in neonatal intubation, chest tube insertion, and pericardiocentesis, among others. Cost-effective, low-cost options for simulation-based education can be developed and shared in order to optimize the neonatal simulation training experience. Copyright © 2016 Elsevier Inc. All rights reserved.

[Neonatology faculty development using simulation](#) Abstract only*

Item Type: Journal Article

Authors: French, Heather M. and Hales, Roberta L.

Publication Date: 2016

Journal: Seminars in Perinatology 40(7), pp. 455-465

Abstract: The goal of faculty development activities is to supply the public with knowledgeable, skilled, and competent physicians who are prepared for high performance in the dynamic and complex healthcare environment. Current faculty development programs lack evidence-based support and are not sufficient to meet the professional needs of practicing physicians. Simulation activities for faculty development offer an alternative to traditional, teacher-centric educational offerings. Grounded in adult learning theory, simulation is a learner-centric, interactive, efficient, and effective method to train busy professionals. Many of the faculty development needs of clinical neonatologists can be met by participating in simulation-based activities that focus on technical skills, teamwork, leadership, communication, and patient safety. Copyright © 2016 Elsevier Inc. All rights reserved.

Staffing

[The potential of patient-based nurse staffing - a queuing theory application in the neonatal intensive care setting](#)

Item Type: Journal Article

Authors: Sulz, S.;Fugener, A.;Becker-Peth, M. and Roth, B.

Publication Date: // ,2024

Journal: Health Care Management Science

Abstract: Faced by a severe shortage of nurses and increasing demand for care, hospitals need to optimally determine their staffing levels. Ideally, nurses should be staffed to those shifts where they generate the highest positive value for the quality of healthcare. This paper develops an approach that identifies the incremental benefit of staffing an additional nurse depending on the patient mix. Based on the reasoning that timely fulfillment of

care demand is essential for the healthcare process and its quality in the critical care setting, we propose to measure the incremental benefit of staffing an additional nurse through reductions in time until care arrives (TUCA). We determine TUCA by relying on queuing theory and parametrize the model with real data collected through an observational study. The study indicates that using the TUCA concept and applying queuing theory at the care event level has the potential to improve quality of care for a given nurse capacity by efficiently trading situations of high versus low workload. Copyright © 2024. The Author(s).

[Association of nurse staffing and unit occupancy with mortality and morbidity among very preterm infants: a multicentre study](#)

Item Type: Journal Article

Authors: Beltempo, Marc; Patel, Sharina; Platt, Robert W.; Julien, Anne-Sophie; Blais, Regis; Bertelle, Valerie; Lapointe, Anie; Lacroix, Guy; Gravel, Sophie; Cabot, Michele and Piedboeuf, Bruno

Publication Date: // ,2023

Journal: Archives of Disease in Childhood. Fetal and Neonatal Edition 108(4), pp. 387-393

Abstract: OBJECTIVE: In a healthcare system with finite resources, hospital organisational factors may contribute to patient outcomes. We aimed to assess the association of nurse staffing and neonatal intensive care unit (NICU) occupancy with outcomes of preterm infants born <33 weeks' gestation., DESIGN: Retrospective cohort study., SETTING: Four level III NICUs., PATIENTS: Infants born 23-32 weeks' gestation 2015-2018., MAIN OUTCOME MEASURES: Nursing provision ratios (nursing hours worked/recommended nursing hours based on patient acuity categories) and unit occupancy rates were averaged for the first shift, 24 hours and 7 days of admission of each infant. Primary outcome was mortality/morbidity (bronchopulmonary dysplasia, severe neurological injury,

retinopathy of prematurity, necrotising enterocolitis and nosocomial infection). ORs for association of exposure with outcomes were estimated using generalised linear mixed models adjusted for confounders., RESULTS: Among 1870 included infants, 823 (44%) had mortality/morbidity. Median nursing provision ratio was 1.03 (IQR 0.89-1.22) and median unit occupancy was 89% (IQR 82-94). In the first 24 hours of admission, higher nursing provision ratio was associated with lower odds of mortality/morbidity (OR 0.93, 95% CI 0.89 to 0.98), and higher unit occupancy was associated with higher odds of mortality/morbidity (OR 1.19, 95% CI 1.04 to 1.36). In causal mediation analysis, nursing provision ratios mediated 47% of the association between occupancy and outcomes., CONCLUSIONS: NICU occupancy is associated with mortality/morbidity among very preterm infants and may reflect lack of adequate resources in periods of high activity. Interventions aimed at reducing occupancy and maintaining adequate resources need to be considered as strategies to improve patient outcomes. Copyright © Author(s) (or their employer(s)) 2023. No commercial re-use. See rights and permissions. Published by BMJ.

[Is nurse staffing associated with critical deterioration events on acute and critical care pediatric wards? A literature review](#)

Full text available with NHS OpenAthens account*

Item Type: Journal Article

Authors: Genna, C.; Thekkan, K. R.; Raymakers-Janssen, P. A. M. A. and Gawronski, O.

Publication Date: // ,2023

Journal: European Journal of Pediatrics 182(4), pp. 1755-1770

Abstract: Pediatric and neonatal patients admitted to acute and critical care wards may experience critical deterioration events that may lead to unexpected deaths if unrecognized and untreated promptly. Adequate levels and skill-mix of nurse staffing are essential for the quality of patient monitoring and

response to deteriorating patients. Insufficient staffing may have an impact on the occurrence of missed care and consequently on critical deterioration events, increasing the risk of mortality and failure-to-rescue. To review the literature to explore the association between nurse staffing levels or skill-mix and pediatric and neonatal critical deterioration events, such as mortality, pediatric intensive care unit (PICU)/neonatal intensive care unit (NICU) unplanned admissions, cardiac arrests, and failure-to-rescue. A structured narrative literature review was performed. Pubmed, Cinhal, and Web of Science were searched from January 2010 to September 2022. Four independent reviewers conducted the study screening and data extraction. The quality of the studies included was evaluated using the Joanna Briggs Institute critical appraisal tools. Out of a total of 2319 studies, 15 met the inclusion criteria. A total of seven studies were performed in PICU, six in NICU, and two in general pediatric wards. Nurse staffing measures and outcomes definitions used were heterogeneous. Most studies suggested nursing skill-mix, increased working experience, or higher nursing degrees were associated with increased survival in PICU. Decreased nursing staffing levels were associated with increased mortality in NICU and mechanically ventilated patients in PICU. Conclusion(s): Evidence on the association of nurse staffing and critical deterioration events in PICU and NICU is limited, while there is no evidence reported for pediatric wards. Future research is needed to determine adequate levels of nurse/patient ratios and proportion of registered nurses in the skill-mix for pediatric acute and critical care nursing to improve outcomes on in-patient wards. What is Known:* Adult nursing skill-mix, staffing ratios, and level of education are associated with patient mortality and failure to rescue.* In children, nurse staffing levels are associated with clinical outcomes. What is New:* Evidence on the association of nurse staffing levels or skill-mix with pediatric or neonatal mortality is limited.* There is some evidence regarding the association of nursing work

experience, certification, higher level degree with in-hospital survival in PICU. Copyright © 2023, The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature.

[Data-Driven Nurse Staffing in the Neonatal Intensive Care Unit](#)

Abstract only*

Item Type: Journal Article

Publication Date: // ,2022

Journal: MCN.the American Journal of Maternal Child Nursing 47(5), pp. E9

The challenge of nurse staffing is amplified in the acute care neonatal intensive care unit (NICU) setting, where a wide range of highly variable factors affect staffing. A comprehensive overview of infant factors (severity, intensity), nurse factors (education, experience, preferences, team dynamics), and unit factors (structure, layout, shift length, care model) influencing pre-shift NICU staffing is presented, along with how intra-shift variability of these and other factors must be accounted for to maintain effective and efficient assignments. There is opportunity to improve workload estimations and acuity measures for pre-shift staffing using technology and predictive analytics. Nurse staffing decisions affected by intra-shift factor variability can be enhanced using novel care models that decentralize decision-making. Improving NICU staffing requires a deliberate, systematic, data-driven approach, with commitment from nurses, resources from the management team, and an institutional culture prioritizing patient safety.

[Infections, accidents and nursing overtime in a neonatal intensive care unit](#) Full text available with NHS OpenAthens account*

Item Type: Journal Article

Authors: Beltempo, M.;Bresson, G.;Etienne, J. -M and Lacroix, G.

Publication Date: // ,2022

Journal: European Journal of Health Economics 23(4), pp. 627-643

Abstract: The paper investigates the effects of nursing overtime on nosocomial infections and medical accidents in a neonatal intensive care unit (NICU). The literature lacks clear evidence on this issue and we conjecture that this may be due to empirical and methodological factors. We model the occurrences of both events using a sample of 3979 neonates who represents over 84,846 observations (infant/days). We exploit an important change in workforce arrangement that was implemented in June 2012, and which aimed at reducing overtime hours to identify a causal impact between the latter and the two outcomes of interest. We contrast the results using a standard mixed-effects logit model with those of a semiparametric mixed-effects logit model. Contrary to the mixed-effects logit model, the semiparametric model unequivocally shows that both adverse events are impacted by nursing overtime as well as being highly sensitive to infant and NICU-related characteristics. Furthermore, the mixed-effects logit model is rejected in favour of the semiparametric one. Copyright © 2021, The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature.

Supply

[Forecasting the Future Supply of Pediatric Subspecialists in the United States: 2020-2040](#) Abstract only*

Item Type: Journal Article

Authors: Fraher, Erin;Knapton, Andy;McCartha, Emily and Leslie, Laurel K.

Publication Date: // ,2024

Journal: Pediatrics 153

Abstract: Concerns persist about whether the United States has an adequate supply of pediatric subspecialists and whether they

are appropriately distributed across the nation to meet children's health needs. This article describes the data and methods used to develop a workforce projection model that estimates the future supply of 14 pediatric subspecialties certified by the American Board of Pediatrics at the national and US census region and division levels from 2020 to 2040. The 14 subspecialties include adolescent medicine, pediatric cardiology, child abuse pediatrics, pediatric critical care medicine, developmental-behavioral pediatrics, pediatric emergency medicine, pediatric endocrinology, pediatric gastroenterology, pediatric hematology-oncology, pediatric infectious diseases, neonatal-perinatal medicine, pediatric nephrology, pediatric pulmonology, and pediatric rheumatology. Hospital medicine was excluded because of the lack of historical data needed for the model. This study addresses the limitations of prior models that grouped adult and pediatric physician subspecialty workforces together and aggregated pediatric subspecialties. The model projects supply at national and subnational levels while accounting for geographic moves that pediatric subspecialists make after training and during their career. Ten "what if" scenarios included in the model simulate the effect of changes in the number of fellows entering training, the rate at which subspecialists leave the workforce, and changes in hours worked in direct and indirect clinical care. All model projections and scenarios are available on a public, interactive Web site. The model's projections can also be examined with other data to provide insight into the possible future of the pediatric subspecialty workforce and offer data to inform decision-making. Copyright © 2024 by the American Academy of Pediatrics.

[Essentials of Neonatal-Perinatal Medicine Fellowship: careers in Neonatal-Perinatal Medicine](#)

Item Type: Journal Article

Authors: Trzaski, Jennifer M.;Kiefer, Autumn S.;Myers, Patrick;ONTDP Fellowship Directors Writing Group and

Johnston, Lindsay C.

Publication Date: Aug ,2022

Journal: Journal of Perinatology 42(8), pp. 1135-1140

Abstract: The clinical and academic landscape of Neonatal-Perinatal Medicine (NPM) is evolving. Career opportunities for neonatologists have been impacted by shifts in compensation and staffing needs in both academic and private settings. The workforce in NPM is changing with respect to age and gender. Recruiting candidates from backgrounds underrepresented in medicine is a priority. Developing flexible positions and ensuring equitable salaries is critically important. Professional niches including administration, education, research, and quality improvement provide many opportunities for scholarly pursuit. Challenges exist in recruiting, mentoring, funding, and retaining physician-scientists in NPM. Creative solutions are necessary to balance the needs of the NPM workforce with the growing numbers, locations, and complexity of patients. Addressing these challenges requires a multi-faceted approach including adapting educational curricula, supporting trainees in finding their niche, identifying novel ways to address work/life integration, and attracting candidates with both diverse backgrounds and academic interests. Copyright © 2022. The Author(s), under exclusive licence to Springer Nature America, Inc.

Workforce

[Child Health and the Neonatal-Perinatal Medicine Workforce: 2020-2040](#) Abstract only*

Item Type: Journal Article

Authors: Horowitz, E.;Hudak, M. L.;Pena, M. -M;Vinci, R. J. and Savich, R.

Publication Date: // ,2024

Journal: Pediatrics 153, pp. e20230636780

Abstract: In 2022, 3.7 million children were born in the United States, of whom ~600 000 received care from a neonatologist.

The dramatic growth of the neonatal-perinatal medicine (NPM) workforce from 375 in 1975 to 5250 in 2022 has paralleled exploding clinical demand. As newborn medicine continues to push the limits of gestational viability and medical complexity, the NPM workforce must advance in numbers, clinical capability, scientific discovery, and leadership. This article, as part of an American Board of Pediatrics Foundation-sponsored supplement that is designed to project the future of the pediatric subspecialty workforce, features a discussion of the NPM workforce's history and current status, factors that have shaped its current profile, and some plausible scenarios of the workforce's needs and configuration in the future. In the article, we use an analytical model that forecasts the growth trajectory of the neonatologist workforce from 2020 through 2040. The model uses recent data on the number of neonatologists and clinical work equivalents per 100 000 children and projects future workforce supply under several theoretical scenarios created by modifying key baseline parameters. The predictions of this model confirm the need for a greater sustainable clinical capacity of the NPM workforce. Several future trends indicate that there may be geographic shortages of neonatologists, similar to expected shortages in other pediatric subspecialties. We do not address what an appropriate target for workforce size should be with the model or this article because the current and projected geographic variability in the NPM workforce and risk-appropriate care suggest that a uniform answer is unlikely. Copyright © 2024 American Academy of Pediatrics. All rights reserved.

[Neonatal Nursing Workforce Issues: Stress and Burnout](#) Abstract only*

Item Type: Journal Article

Authors: Moss, Colleen

Publication Date: // ,2024

Journal: The Journal of Perinatal & Neonatal Nursing 38(2), pp. 108-109

“Nurses are in a dire state” was the recent subject line in an e-mail sent to from a prominent nursing organization to its members. The message was clear—nurses at all levels are feeling overwhelmed and stressed. Workplace stress and burnout are threats to growth and advancement of the nursing profession, and our neonatal nursing workforce is not immune. In a recent editorial column in this journal, Dr Carole Kenner shared, “Nurses are feeling burned out and exhausted. They express anger at not being able to provide the care they so desire. Moral distress is real.”¹ The neonatal nursing workforce faces challenges in recruitment and retention of passionate nurses who are dedicated to the care of the most vulnerable population in healthcare. Mentorship is critical for the professional development and advancement of neonatal nurses at all levels and serves as an antidote to burnout and moral distress.

The Workforce Providing Prenatal and Postpartum Care Decreases When Family Physicians Stop Attending Deliveries

Item Type: Journal Article

Authors: Eden, A. R.; Taylor, M. K.; Goldstein, J. T. and Barreto, T.

Publication Date: // ,2023

Journal: Journal of the American Board of Family Medicine 36(4), pp. 685-686

Abstract: The impact of the declining proportion of family physicians who attend deliveries on the provision of other perinatal care during pregnancy, postpartum, and neonatal periods is unclear. We found a strong association between stopping attending deliveries and stopping providing prenatal and postpartum care among family physicians, suggesting that policies which support family physicians to maintain a full scope of practice including all or some aspects of perinatal care may help alleviate shortages in the perinatal workforce and fill gaps in

access to obstetric care. Copyright © 2023 American Board of Family Medicine. All rights reserved.

Defining Surgical Workforce Density Targets to Meet Child and Neonatal Mortality Rate Targets in the Age of the Sustainable Development Goals: A Global Cross-Sectional Study

Full text available with NHS OpenAthens account*

Item Type: Journal Article

Authors: Truche, P.; Smith, E. R.; Ademuyiwa, A.; Buda, A.; Nabukenya, M. T.; Kaseje, N.; Ameh, E. A.; Greenberg, S.; Evans, F.; Bickler, S.; Meara, J. G. and Rice, H. E.

Publication Date: // ,2022

Journal: World Journal of Surgery 46(9), pp. 2262-2269

Abstract: OBJECTIVES: To reduce preventable deaths of newborns and children, the United Nations set a target rate per 1000 live births of 12 for neonatal mortality (NMR) and 25 for under-5 mortality (U5MR). The purpose of this paper is to define the minimum surgical workforce needed to meet these targets and evaluate the relative impact of increasing surgeon, anesthesia, and obstetrician (SAO) density on reducing child mortality. METHOD(S): We conducted a cross-sectional study of 192 countries to define the association between surgical workforce density and U5MR as well as NMR using unadjusted and adjusted B-spline regression, adjusting for common non-surgical causes of childhood mortality. We used these models to estimate the minimum surgical workforce to meet the sustainable development goals (SDGs) for U5MR and NMR and marginal effects plots to determine over which range of SAO densities the largest impact is seen as countries scale-up SAO workforce. RESULT(S): We found that increased SAO density is associated with decreased U5MR and NMR ($P < 0.05$), adjusting for common non-surgical causes of child mortality. A minimum SAO density of 10 providers per 100,000 population (95% CI: 7-13) is associated with an U5MR of < 25 per 1000 live births. A minimum SAO density of 12 (95% CI: 9-20) is associated with an NMR

of <12 per 1000 live births. The maximum decrease in U5MR, on the basis of our adjusted B-spline model, occurs from 0 to 20 SAO per 100,000 population. The maximum decrease in NMR based on our adjusted B-spline model occurs up from 0 to 18 SAO, with additional decrease seen up to 80 SAO.

CONCLUSION(S): Scale-up of the surgical workforce to 12 SAO per 100,000 population may help health systems meet the SDG goals for childhood mortality rates. Increases in up to 80 SAO/100,000 continue to offer mortality benefit for neonates and would help to achieve the SDGs for neonatal mortality reduction. Copyright © 2022. The Author(s) under exclusive licence to Societe Internationale de Chirurgie.

[The changing UK paediatric consultant workforce: report from the Royal College of Paediatrics and Child Health](#) Abstract only*

Item Type: Journal Article

Authors: McColgan, Martin; Winch, Rachel; Clark, Simon J.; Ewing, Carol; Modi, Neena and Greenough, Anne

Publication Date: Feb, 2017

Journal: Archives of Disease in Childhood 102(2), pp. 170-173

Abstract: OBJECTIVES: To determine if there had been changes in the size of the UK paediatric workforce and working patterns between 1999 and 2013. DESIGN: Analysis of prospectively collected datasets. SETTING: UK consultant paediatricians. INTERVENTIONS: Data from the Royal College of Paediatrics and Child Health's workforce census from 1999 to 2013 and the annual surveys of new paediatric Certificate of Completion of Training (CCT) and Certificate of Equivalence of Specialist Registration (CESR) holders between 2010 and 2013. MAIN OUTCOME MEASURES: Paediatric consultant numbers, programmed activities (PAs) and resident shift working. RESULTS: The UK paediatric consultant workforce grew from 1933 in 1999 to 3718 in 2013. Over the same time period, there was a decline in the number of consultants with a primary academic contract from 210 to 143. There was an increase in the

proportion of consultants who were female (40% in 1999 to 50% in 2013, p Copyright Published by the BMJ Publishing Group Limited. For permission to use (where not already granted under a licence) please go to <http://www.bmj.com/company/products-services/rights-and-licensing/>.

eLearning

[Introduction to Allied Health Professionals in Neonatal Care](#)

Source: NHS England eLearning for Healthcare

On 30 May 2024, the current introduction to Allied health professionals in neonatal care elearning resource will move from the elfh Hub to the [NHSE Learning Hub](#) as part of a planned upgrade of our learning platforms.

The Learning Hub is a national digital learning platform providing easy access to a wide range of educational resources and support for the health and care workforce and educators. You are auto enrolled on the Learning Hub with your elfh account and new users can sign up for free.

[Psychologically-Informed Neonatal Care](#)

Source: NHS England eLearning for Healthcare

This programme is available on the NHS Learning Hub. We recommend you read the information on this webpage to find out more about the programme before you access the learning. <https://learninghub.nhs.uk/Catalogue/psychology-informed-neonatal-care>

Competency Frameworks

Advanced Neonatal Nurse Practitioner Capabilities Framework

Source: British Association of Perinatal Medicine

Publication date: 2021

The purpose of this framework is to give a career pathway to ANNPs working in any level or unit or within the transport setting. This model makes clear how ANNPs can progress outside the limitations of the clinical rota by setting out a variety of career development pathways using the four pillars of advanced practice: clinical practice, leadership and management, education and research.

Neonatal Dysphagia Competency Framework

Source: Royal College of Speech and Language Therapy

Publication date: 2018

This document is a training and competency framework for SLTs working with neonates with feeding or swallowing difficulties (dysphagia). For the purpose of this competency framework we define a neonate as an infant younger than 4 weeks old.

Career, education and competency framework for neonatal nursing in the UK

Source: Royal College of Nursing

Publication date: 2015

Neonatal care has come a long way in a short time. Outcomes that could only have been dreamed of 10 to 15 years ago are, in many cases, now possible for infants of extremely low birth weight. Alongside advances in supportive technology and pharmacology there have been equally worthy care innovations, including a range of benchmarks, standards and competences developed and designed to ensure safe and enhanced quality care (SNNG, 2005; DH, 2009; BAPM, 2010; RCN, 2012b; Scottish Government, 2013).

A Competence Framework and Evidenced-Based Practice Guidance for the Physiotherapist working in the Neonatal Intensive Care and Special Care Unit in the United Kingdom

Source: Association of Paediatric Chartered Physiotherapists Neonatal Committee

Publication date: Updated November 2015

This competence based framework was developed as part of the Association of Paediatric Chartered Physiotherapists (APCP) competence project by a working party from the APCP Neonatal Group. The essential competences were developed by a panel of specialist neonatal and paediatric physiotherapists from clinical, research, and academic settings whose goal was to establish the basis by which to prepare the paediatric physiotherapy workforce to deliver safe, quality, standardised, competent, family-focused care to neonates within the Neonatal Intensive Care, High Dependency and Special Care setting (referred to as Neonatal Unit NNU throughout the document unless otherwise specified) and in follow-up in the Community following discharge.

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