

COINN 2024

ABSTRACT SUBMISSIONS

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MS REBECCA AMARA

Title of Presentation

Assessment of Breastfeeding Among lactating mothers with neonates born via Caesarean Section at the Princess Christian Maternity Hospital, Fourah Bay Road, Freetown.

Abstract Submission

ABSTRACT Background: Timely breastfeeding initiation is an efficacious intervention beneficial for both mother and baby. However, there is evidence that cesarean section (CS) can interfere with the early initiation of breastfeeding. The aim of the study was to evaluate breastfeeding practices among mothers with neonates born via CS. Methods: A hospital-based cross-sectional study was conducted from 1st January to 31st of June 2023 at PCMH among 640 Lactating mothers who delivered via CS during the study period. Data were collected via a self-administered questionnaire. Results: None (0%) of the neonates had breast milk within the two hours of life, Initiation of breastfeeding were within 24 hours (25%), within 2 days (20%), and within 3 days (30%) while 25% had no breastfeeding. Among those who were breastfed, 67% were exclusively breastfed whilst 32% had mixed feeding. For the pattern of feeding, 72% were put to the breast whilst 28% had cup feeding. Reported effects of delayed initiation of breastfeeding were: persistent crying (68%), and mothers not happy that babies are not fed (32%). Reasons for delayed breastfeeding were lack of knowledge of mothers on breastfeeding after CS (56%), the health status of the mother (14%), and the status of the neonate (30%). Conclusions: At PCMH, there is late initiation of breastfeeding among neonates born via CS. Intervention study including training of staff and pregnant women on breastfeeding after CS and initiation of skin-to-skin contact at the operating theater is recommended Keywords: Timely initiation of breastfeeding, Cesarean section.

Mrs Hanne Aagaard

Title of Presentation

Parents' experiences of transitioning to home with a very-low-birthweight infant: A meta-ethnography

Abstract Submission

Medical-technological advances and neurodevelopmental care have improved the survival of extremely- and very-low-birthweight infants born before 32 weeks' gestation. After months in neonatal care, the infants are discharged, and parents exited but full of anxiety. This review is designed as a meta-ethnography, addressing parents' discharge experiences to comprehend the synthesised research, which includes 12 eligible studies. From the analysis, we constructed three themes: 'approaching discharge with both uncertainty and confidence'; 'discharge as a longed-for though disordering turning point'; and 'facing joys, worries and multiple challenges when at home'. The overarching interpretation was 'discharge as double-edged sword'. We conclude that bringing home very-low-birthweight infants is a joyful event, yet parents also experience discharge as never-endingly worrying, as a time filled with challenges to which parents must adapt and as necessitating continuous support from knowledgeable providers.

Miss, Mrs Beatriz Adedoyin (Dee) Afonso Yissau

Title of Presentation

Enhanced Neonatal Nurse Practitioner Module - Enhancing the quality of regional neonatal services in London through nursing education and development

Abstract Submission

The London Operational Delivery Network (ODN) is designing and delivering a new education module, entitled Enhanced Neonatal Nurse Practitioner (ENNP). The module aims to increase participants' underpinning knowledge and skills to enable them to safely undertake enhanced neonatal clinical skills associated within the holistic care, management and assessment of the neonate. The development of the ENNP Module is part of the ODN's Education and Workforce strategy to support career pathways, retention and meet national GIRFT recommendations (2022) on expanding and developing new roles. An ENNP role descriptor has been created to support this transition. The ambition is for this module and role to support the development of qualified in speciality (QiS) nursing professionals, and advance them into alternative neonatal career pathways. The ODN has modelled the programme, based on the four pillars of practice extrapolated from the Advanced Neonatal Nurse Practitioner Framework (2021). This fantastic opportunity has become possible through input and collaboration of a multidisciplinary steering group which integrates relevant stakeholders across the network. This includes London's Universities, East of England and Kent, Surrey and Sussex ODN's, who have expressed interest in accessing the module. The group provides leadership, critical appraisal, governance, and decision-making over project direction. The aspiration is to academically credit the module via a work-based learning (WBL) format, where the ODN delivers the module independently and the local universities coordinate the academic assessment and respective credits. We look forward to delivering the ENNP module, enhancing the quality of regional neonatal services we provide for our families.

Dr Negarin Akbari

Title of Presentation

Comparison the effect of maternal breast milk odor, facilitated tucking and non-nutritive sucking applied to preterm neonates during heel stick on pain and physiological parameters: A randomized controlled trial.

Abstract Submission

Aim: This study aimed to determine the effect of the maternal breast milk odor, facilitated tucking and non-nutritive sucking applied to preterm neonates during heel stick on pain and physiological parameters. **Design:** The study was a randomized controlled trial. **Methods:** The study sample included a total of 144 preterm neonates. Neonates were randomly allocated to each group. Pain assessment and physiological parameters were performed using the PIPP-R pain scale and Data Evaluation Form. The comparison of pain scores among the groups was carried out using the Tukey test. **Results:** The research results are given with comparisons in eight time periods. During and after procedure the facilitated tucking group displayed lower PIPP-R mean scores compared to non-nutritive sucking, and maternal breast milk odor groups ($p < 0.001$). The mean heart rate and respiratory rate were found to be the lowest in the non-nutritive sucking group ($p < 0.001$). The mean Spo2 was found to be the highest in the non-nutritive sucking group ($p < 0.001$). Facilitated tucking demonstrated effectiveness in alleviating pain in preterm neonates before, during, and after heel stick procedures. **Patient or Public Contribution:** In this groundbreaking study, the invaluable contribution of the preterm neonates and their families played a pivotal role in unraveling the impact of maternal breast milk odor, facilitated tucking, and non-nutritive sucking during heel stick procedures. Their participation provided unique insights into the multifaceted dimensions of neonatal care, elucidating the intricate interplay between environmental stimuli and the physiological response to pain. **ClinicalTrials.gov Identifier:** NCT05281367

Mrs. Lora Alexander

Title of Presentation

Maternity and Neonatal Safety Support Programme (MatNeo SSP) Cymru - Transforming Care Through Multidisciplinary Partnership

Abstract Submission

Inequalities in care for mothers and babies in Wales based on postcode, ethnic background and social class persist despite local interventions (Goodwin et al 2021, Kadel et al 2022). Supported by Improvement Cymru, the MatNeoSSP team investigated the care provided in Wales and set out five areas of improvement to increase the quality of care provided to families and reduce inequalities. Local bright spots found include: an interactive Family Integrated Care training day; developing Maternity Voices Partnerships to include families in the design and shaping of services; establishing Perinatal MDT groups to improve care through ATAIN reviews, daily joint MDT handovers and more; designing sibling packs to welcome and include young siblings to the NICU; and developing multi-lingual resources to ensure all families are well informed and empowered to care for their baby. Health Boards were encouraged to use MatNeo champions as resources to develop these bright spots in their own areas, and this spread and scale focus led to increased uptake throughout Wales. Bethan Jones, embedded in the Welsh Ambulance Service (WAST) as a perinatal champion: has resourced neonatal thermometers to all ambulances; alongside WAST colleagues developed and implemented a mandatory training module for neonatal thermoregulation, leading to extreme preterm infants born outside hospital being admitted with acceptable temperatures; specified the database for pregnancy trimester; resourced prehospital Neonatal Life Support training for all paramedics; and is in the process of streamlining a Labour Line phone system to improve the care given to women when they arrive in the hospital. Goodwin L, Jones A, Hunter B. Addressing social inequity through improving relational care: a social-ecological model based on the experiences of migrant women and midwives in South Wales. *Health Expect.* 2022; 25: 2124-2133.

<https://doi.org/10.1111/hex.13333> Kadel R, Allen J, Darlington O, Masters R, Collins B, Charles JM, Asaria M, Dyakova M, Bellis M and Cookson R (2022) Cost of health inequality to the NHS in Wales. *Front. Public Health* 10:959283. doi: 10.3389/fpubh.2022.959283

Ms Lauren Allison

Title of Presentation

Newborn Toolkit: Empowering neonatal nurses to strengthen and scale small and sick newborn care in low and middle-income settings

Abstract Submission

Background 13.4 million newborns were born prematurely in 2020 with no measurable change in preterm birth rates over the last decade. Globally, 2.3 million neonatal deaths were estimated in 2021, and 13 of the top 30 countries with the highest neonatal mortality rates were French-speaking. Nurses have a central role to ensuring high-quality care delivery, yet there is a major shortage of neonatal nurses based in low and middle-income countries.

Methods The Newborn Toolkit is an online open-access platform that contains learnings, tools, and readings for implementers to use to act, share, and learn from. The Newborn Toolkit recognizes the importance of empowering nurses as implementers of small and sick newborn care. Resources on the website are organized into the UNICEF/WHO 10 core components for health systems.

Findings The Newborn Toolkit hosts over 800 resources, tools, and learnings in 11 different languages. In 2023, there were over 22 000 unique users from 173 countries and territories. Users included nurses, medical doctors, policy makers, biomedical engineers, parents, leadership, and academics. Partners include the Council of International Neonatal Nurses, International Midwifery Council, African Neonatal Association, and more. The community of practice for small and sick newborn care is actively engaged through webinars, monthly newsletters, and on social networks.

Implications More investment in multi-level systems change for small and sick newborn care, including neonatal nurses, is needed, with a focus on French-speaking countries. The Newborn Toolkit aims to accelerate progress on reducing neonatal mortality by providing implementers the necessary tools, learnings, and resources.

Ms Miranda Amundsen

Title of Presentation

Capacity Building in Neonatal Nursing Research in Low-and Middle-Income Countries: A Malawi Case Study

Abstract Submission

Background: Globally, neonates represent 50% of the under-five child mortality rate. Most neonatal deaths occur in low-and middle-income countries (LMIC), at a rate 20 to 40 times higher than in high-income countries. In LMIC, neonatal care is predominantly carried by nurses, yet research has failed to consider the impact of local nursing disciplinary knowledge as a critical element in addressing adverse neonatal outcomes. **Objectives:** To improve nursing-led research in the neonatal unit at Kamuzu Central Hospital in Malawi, Africa. Specifically, this study assesses nurses' knowledge, practices, and attitudes towards research; determines the facilitators and barriers to nursing-led research; and understands how nurses can be supported to lead research activities through capacity building. **Methods:** A single, heuristic case study informed by participatory action research and postcolonial feminism was utilized in this study. Focus groups and 1:1 semi-structured interviews were held with nurses and key informants linked to nursing research. Documents and artifacts were also mined as they related to nursing research. **Results:** Four focus groups (22 people) and 32 interviews were conducted to represent the case. Preliminary analysis indicates nurses feel unprepared in research skills; there are limited opportunities and resources; and nursing culture does not foster research. Nurses see the value in research and have identified multiple areas of improvement, however, their role has only been as data collectors for medical researchers from other countries. **Conclusions:** Local nursing-led research in LMIC is imperative to address neonatal health inequities. Barriers faced by nurses in research are experienced globally and prioritizing resources to countries with the highest neonatal mortality rates is essential.

Mrs Natalie Anders

Title of Presentation

Building ANNP Collaboration Across a Region

Abstract Submission

Background Advanced Neonatal Nurse Practitioners (ANNPs) are a valuable, stable, autonomous workforce. This group are fundamental to providing high quality, safe neonatal care. Restrictions such as: time, funding, lack of recognition and lack of focus around how to progress can often hinder ANNP development. The Neonatal Operation Delivery Network have recognised the growing need to support and develop the expanding ANNP workforce in the North-West (NW). Aims • Engage NW ANNPs. • Provide NW ANNPs with the opportunity to work collaboratively with peers, contribute to quality improvement and improve wellbeing, whilst ensuring compliance to the Advanced Practice Framework. Method • Collate workforce data and contacts for 118 NW ANNPs. • Share a questionnaire to explore ANNP experience and expectations. • Face to Face Study Day for 118 ANNPs. • Develop regional ANNP forum. Results To date the NW ANNP Forum has: • Surveyed ANNPs in the region to understand their experience, learning requirements, and expectations of the regional forum. o 45 responses concluded that they would benefit from advice, education, updates on national guidance, links with other trusts and peer support. • Hosted a face to face conference for the NW ANNP Forum covering the 4 pillars of advanced practice, attended by 97 out of 118 ANNP's (including trainees). • Commenced quarterly webinars including topics such as antenatal counselling, probiotics, critically appraising articles, how to run a journal club, Allied Health Professional roles, and mindfulness for wellbeing. • Developed an MS Teams channel to encourage ANNP communication. Including access to development opportunities, national guidelines, QIP projects and presentations.

Ms. Kristin Anderson

Title of Presentation

Sierra Leone: Neonatal Nursing Clinical Preceptor Orientation Program

Abstract Submission

In 2021 the neonatal mortality rate in Sierra Leone was 31/1,000 live births. Many of these deaths may be preventable if managed in a timely manner by skilled neonatal professionals. Neonatal nursing in a new cadre in Sierra Leone. A Clinical Preceptorship Model that supports competency-based education and clinical practice for new nursing staff, faculty, and students was initiated to support the development of quality care to small and sick newborns within a special care unit environment. The Clinical Preceptor Model uses COINN's 12 Module Preceptor Orientation Program and was tested at the Ola During Children's Hospital (ODCH), Special Care Baby Unit (SCBU) in Freetown, Sierra Leone. Technical assistance was provided by COINN and Project HOPE and the training was supervised by a neonatal nurse specialist from Tamale Teaching Hospital, Accra, Ghana and the Lead Preceptor at the ODCH SCBU. A team of three experienced nurses were selected from the ODCH SCBU as Clinical Preceptors. As preceptors, they work directly with learners at the bedside to teach clinical competencies, working closely with the Head Nurse, physicians, and faculty to provide an environment to improve the quality of care. Early results from the Clinical Preceptor Model include the development of a Clinical Care Committee which oversees an IPC structure to decrease and track neonatal sepsis, provides routine refresher training in HBB, establishment of resuscitation areas, and in safety of SCBU equipment. Quality improvement projects centered on improving handwashing, improving communications with labor and delivery and medication administration are ongoing.

Dr. Mary Ani-Amponsah

Title of Presentation

Nurses' Assistive Practice of Newborn Exchange Transfusion in Neonatal Hyperbilirubinemia Management at Tamale Teaching Hospital, Northern Ghana

Abstract Submission

Introduction: Newborn exchange transfusion (NET) is a major invasive lifesaving procedure in newborn jaundice management that requires highly skilled professional nurses to ensure quality newborn health outcomes. Nurses in neonatal care lack competencies in NET across diverse clinical settings in this physician-led procedure. This study therefore sought to explore the nurse's assistive practices in NET following diagnosis of neonatal hyperbilirubinemia. **Methods:** The study adopted an exploratory descriptive qualitative design to engage twelve (12) neonatal/Pediatric nursing specialists/Registered General Nurses working in the Neonatal Intensive Care Unit (NICU) at the Tamale Teaching Hospital after ethics approval was obtained. The participants were interviewed (July-Sept., 2023), and data were content analysed. **Results:** Most participants were females (n=8) aged between 30 – 35 years, 25 – 30 years (n=2) and 35 – 40 years (n=2). Most had degree in nursing qualification (n=9). General nurses were 8; and specialized pediatric nurses (n=4). Four major themes and 15 subthemes emerged from the data. The key findings revealed nurses' knowledge gaps in preparation for NET with issues in safety and emergency care during the procedure. Major barriers to NET practice were lack of skilled personnel, inadequate logistics, lack of protocol and socio-cultural factors. **Conclusion:** Nurses in newborn care delivery need to be trained in NET and other advanced neonatal procedures. Evidence-based NET protocols need to be established to guide practice, with culturally sensitive approaches in nurse-parental collaborative care. Further research is needed in nurses' skills retention and confidence in NET assistive practice, and demystification of religio-cultural factors impacting quality NET practice.

Dr. Mary Ani-Amponsah

Title of Presentation

Understanding the dynamics of home-based kangaroo care and survival threats at preterm newborns following discharge from a rural-urban health facility, Ghana.

Abstract Submission

Introduction: Preterm Birth (PTB) is the leading cause of newborn mortality worldwide. Preterm-birth mortalities are commonly attributed to infections, thermal regulation deficiencies, and respiratory challenges. Following discharge from facility-based care, poor thermal care, feeding challenges, constipation, and harmful socio-cultural practices influence preterm babies' re-admission into health care facilities. Inadequate access to skilled care, and lack of implementation support in cost-effective home-based interventions such as kangaroo care impact frequency of PTB mortalities. The study therefore aimed to explore the dynamics of home-based kangaroo care for preterm babies following discharge from a rural-urban health facility in Eastern Ghana. Methods: An exploratory descriptive research design was used to engage fourteen (14) mothers of preterm babies following discharge with their babies from the Nsawam Government hospital to rural-urban communities. Interviews were conducted and data content analysed. Findings: Three (3) major themes and 12 subthemes emerged from the data. Key findings revealed inadequate discharge preparation, stigma about kangaroo care, parental stress, lack of leadership support, and care gaps on positioning, thermal care and feeding as major factors influencing quality home-based preterm baby care. Newborn family gatekeepers' delivery of herbal treatment/alternative medicine posed as threats to preterm baby survival following health facility discharge. Conclusion: The study findings establish the need for clinicians and community health workers to collaborate in preterm babies' care prior to and after discharge to ensure safe and quality health outcomes in the continuum of care. Sustained partnerships between families and skilled newborn health care workers are critically needed to avert PTB-related deaths.

Ms Sehrish Aslam

Title of Presentation

Unveiling Kangaroo Mother Care Practices: Insights from Healthcare Providers

Abstract Submission

Abstract: Unveiling Kangaroo Mother Care Practices: Insights from Healthcare Providers Our quality improvement project examined the practices of Nurses, Midwives, Nurse Midwives, and Physicians/Medical Doctors from Nigeria, Zimbabwe, Ghana, Eswatini, Ethiopia, Zambia, and USA in providing Kangaroo Mother Care (KMC) for newborns. The survey results will be the presentation's focus. The project uncovered a diversity of approaches among these dedicated caregivers. A significant portion promptly initiates KMC after childbirth, underlining their commitment to swift care, the specific initiation times varied. Some providers commenced KMC within 1-2 hours, while others began after 24 hours. A small fraction mentioned not providing KMC. Upon closer inspection, the starting time of Kangaroo Mother Care (KMC) is intricately linked to the health status of the newborn. Those tending to small and sick infants commonly delay KMC until stability is achieved. This delay is primarily observed for premature and medically complex babies who require time for recovery before starting KMC. Various factors contribute to this delay, including resource constraints (such as space and equipment), the health of the mother, lack of family support, and challenges within the hospital environment. The survey also explored where immediate Kangaroo Mother Care (iKMC) takes place, revealing settings such as special kangaroo units, delivery rooms, neonatal units, and even homes post-discharge. Insights shared by healthcare providers highlight barriers to immediate KMC. Common challenges encompass limited space, inadequate manpower, equipment shortages, maternal and neonatal health conditions, and a lack of knowledge and skills. The responses describe the current state of KMC practices and emphasize the need for tailored strategies, considering contextual nuances. (250 words)

Ms Sehrish Aslam

Title of Presentation

Improving Neonatal Mortality Outcomes: A Quality Improvement Initiative Assessing Teaching Approaches for Nurse Practitioners and/or Healthcare Trainers

Abstract Submission

Abstract This quality improvement project addresses a critical global concern by focusing on the improvement of neonatal education through effective teaching methods for nurse practitioners and healthcare trainers. Aligned with the World Health Organization's (WHO) roadmap, the project has a dual objective of enhancing skills and reducing neonatal mortality. The survey component, with 83 responses from diverse regions, revealed a notable preference among healthcare professionals for incorporating real-world scenarios in teaching. This teaching approach employs practical and applied learning methods that simulate real-life situations. It may involve case studies or the sharing of incident details, offering valuable learning opportunities by applying theoretical knowledge to real-world contexts. Addressing challenges in low-resource settings, such as language barriers, internet issues, and limited resource access, is crucial for effective teaching. Some nurses may face difficulties accessing materials, while others may lack the capability to use technology. It highlights the critical role of experts in addressing issues linked to neonatal mortality. Their expertise and collaboration could prove instrumental in developing effective solutions, ultimately contributing to improved newborn outcomes. This presentation will present the survey results and implications for future COINN educational programs. (188 words)

Mrs. Sofia Augoustakis

Title of Presentation

Duration of Infant-Parent Skin-to-Skin Contact in Neonatal wards: A Danish Nationwide Cross Sectional Survey

Abstract Submission

Background: In its 2023 guideline, the World Health Organization (WHO) recommends skin-to-skin contact for 8-24 hours a day due to the positive benefits for both infants and parents. There is no previously published data on the daily duration of skin-to-skin contact in Denmark. Aim: To explore the duration of skin-to-skin contact in hospitalized preterm or sick infants in Denmark. Methods: A nationwide cross-sectional survey was performed at all 17 NICUs. On a specified day, parents of hospitalized infants were invited to answer a questionnaire on duration of skin-to-skin contact for the past 24 hours with one-hour interval options. Preliminary results: A total of 170 questionnaires were collected (response rate 94,4%). Within the last 24 hours, 30.6% of the infants were skin-to-skin for a minimum of 8 hours, as recommended from WHO. The median duration was the interval 5<6 hours. Gestational age, post-menstrual age, respiratory support or NICU Level did not associate with the duration of skin-to-skin contact. There was a significant difference between having more skin-to-skin contact than the median amount and both parents performing skin-to-skin contact ($P=0.005$). There was a significant difference between having more skin-to-skin contact than the median and the NICUs ($P=0.01$). To examine the historical development in the daily duration of skin-to-skin contact in neonatal care, three Danish cohorts were compared. Skin-to-skin contact for more than 8 hours a day increased from 3.7% (2009) to 9.1% (2016) to 30.6% (2023) representing a significant increase ($P<0.001$).

Dr Deanne August

Title of Presentation

Cross-Sectional Survey for Assessment and Management of Neonatal and Paediatric Extravasation

Abstract Submission

Objective: To explore current practice and guidelines surrounding the identification and management of extravasation injuries in Australian and New Zealand neonatal and paediatric settings. **Patients and Methods:** Between February and September 2023, an internet-based cross-sectional survey was distributed to Australian and New Zealand neonatal and paediatric clinicians. Survey domains included demographics, extravasation identification, management, local guidelines and resources, and reporting systems. The survey was promoted via professional organizations, academic networks and social media. **Analysis was descriptive. Results:** From 141 respondents majority were Registered Nurses (n=96, 68.1%), with greater than 20 years experience (n=51, 36.2%). Over two-thirds of respondents had no extravasation training (n=98, 69.5%). While 113 respondents (80.1%) reported the availability of guidelines, concerns arose regarding the feasibility of hourly monitoring due to concurrent patient management demands. Half of the respondents (n=70, 49.6%) reported that increased presentation of risk factors did not alter monitoring frequency. Extravasations were most associated with extremities, including hand/wrist region (n=118, 43.7%). Maintenance fluids, antibiotics and parenteral nutrition accounted for most cases based on clinician's experience. Acute management practices, including immediate cessation of infusion, showed consistency, while varying degrees of adoption were observed for aspirating the residual fluid. One-hundred-and-nineteen (84%) respondents reported not using a formal grading scale for extravasation severity. **Conclusions:** Clinicians reported significant challenges and inconsistencies in how extravasation injuries are identified and managed in paediatrics. This underscores the need for effective monitoring and diagnosis, standardized management practices, and education to minimize the burdens of extravasation for patients and healthcare system.

Dr Deanne August

Title of Presentation

What lies beneath, accurate measurement and sequelae of neonatal mechanical skin injuries: A prospective diagnostic/feasibility study

Abstract Submission

Background: Neonatal skin injuries are frequent, yet measured by visual assessment (VA) limiting comparison or management. Objective: Feasibility and accuracy of three non-invasive technologies against VA of skin injuries. Methods: Prospective diagnostic/feasibility study of Australian neonates with mechanical-force injuries. Four injury assessments were conducted within 72-hours of identification: i) bedside and expert VA; ii) surface pH, iii) laser-speckle imaging (perfusion units/mm²), and iv) three-dimensional (3D) imaging (cm²). Secondary outcomes were assessment accuracy, acquisition time, and acceptability. Data were summarized as mean (SD), median (IQR), and frequencies; with healthy and injured skin compared by box/whisker plots (pH and perfusion units), or surface area compared against reference (1.4cm). Mean technology acceptability by linear regression, with technology as fixed effect. Results: Of 65 eligible, 24 neonates were enrolled (February-June 2022), with no withdrawals. Participants were mean 30 weeks (4 SD), median 1244 grams (868 to 1740, IQR). Assessments were attempted for n=40 injuries (n=120) and acquired: 100% VA (n=40), 85% pH (n=34), 75% laser-speckle (n=30) and 95% 3-D (n=38) respectively. Consistency between clinician/expert assessments were low (n=11, 28%) and technology failed 22% assessments (n=26; n=8, laser-speckle; n=3, pH; and n=15, 3-D). Mean injured-pH exceeded healthy-pH (average 0.7 of unit), no differences perfusion means (laser-speckle), and 34% (n=13) 3-D measures overestimated size. Acquisition times ranged 0.25-8 min (pH), 0.5-10min (3-D), 2-15 min (laser-speckle); with mean acceptability highest for 3-D (7), then pH (6.5) and laser-speckle (5.5). Conclusions: Visual assessment is inconsistent indicator of injury, but surface pH maybe the most objective technology for comparison for intact or injured skin.

Mr Vedaste Bagweneza

Title of Presentation

Mitigating Health Disparities: Establishing Comprehensive Screening Protocols for Congenital Heart Defects in Neonates with Down Syndrome in Rwanda

Abstract Submission

Introduction: In Rwanda's healthcare landscape, the absence of systematic screening for congenital heart defects (CHDs) among neonates with Down syndrome (DS) is a significant concern, despite literature advocating for screening within the first six weeks of life (Lagan et al., 2020). This omission poses a critical challenge, as many of these children arrive at healthcare facilities without undergoing essential screenings during the crucial neonatal period. **Background:** This oversight in early screening creates a challenging scenario, delaying the identification of CHDs and impacting the timely initiation of intervention strategies. Neonates with DS, already facing additional risks, encounter potential complications that could have been more effectively addressed if identified during the neonatal phase. **Current Scenario:** The present state indicates a gap in healthcare practices, leaving a vulnerable population of children at risk due to the lack of systematic screening. The consequence is a delayed detection of CHDs, compromising the overall health outcomes of neonates with DS (Pediatric Heart Specialists, 2023). **Urgent Need for Screening Protocols:** The absence of systematic screening underscores the urgent necessity for the establishment and implementation of comprehensive screening protocols. These protocols would address the existing gap in healthcare practices and ensure that neonates with DS receive timely and thorough screening for CHDs. **Conclusion:** Addressing this critical healthcare gap is paramount to improving the overall well-being and health outcomes of neonates with DS in Rwanda, through timely screening of CHDs. Extensive research needs to be conducted in this area in Rwanda.

Mr. Vedaste Bagweneza

Title of Presentation

Uptake of congenital heart defects screening among children with Down syndrome

Abstract Submission

Background: Down syndrome (DS) is the most prevalent genetic cause of intellectual disability, and it is congenital. Characterized by a wide range of clinical manifestations and complications, DS has congenital heart defect (CHD) as a common finding in individuals with DS, affecting around 50% of them. This complication begins during pregnancy and continues in the neonatal period. Early screening and management of CHDs among DS children in the neonatal period influence positive outcomes. Screening should ideally occur in the first six weeks of life, but many DS individuals reach referral hospitals for screening when complications have already occurred, which is worrisome. This may be the result of stigmatization towards individuals with DS in the community, less priority to this group, lack of awareness among parents and healthcare providers, as well as structural factors in low- and middle-income countries. Therefore, this study seeks to investigate the uptake of CHDs screening among children with Down syndrome and examine the factors influencing the uptake of congenital heart defects screening in this population. **Objective:** To investigate the uptake of CHDs screening among children with DS in Rwanda and identify factors influencing the screening process **Methods:** This study will employ a cross-sectional design with mixed methods, involving 313 parents/guardians of children with DS for quantitative insights. The qualitative component includes four Focus Group Discussions with community health workers and 25 key informant interviews with parents. **Results:** The data will be collected in the month of March after getting the ethical clearance in February 2024.

Tracey Bell

Title of Presentation

Development of a Co-Designed Accredited Advanced Neonatal Nursing Curriculum to Improve Neonatal Survival in Tanzania

Abstract Submission

Tanzania has greater neonatal deaths compared to the UN Sustainable Development Goals. Decreasing training variation and increasing capacity of neonatal nurses are key actions to address neonatal mortality. Objectives 1) To complete a needs assessment and 2) co-design a neonatal nursing curriculum to improve nurses' knowledge and skills in a Tanzanian hospital. Kern's Six Steps was used for curriculum development by a multi-national interdisciplinary team. A needs assessment evaluating fifteen topics was completed by eleven Tanzanian respondents scoring topics regarding importance and frequency of use in clinical nursing practice on a scale of 1 being least important/used and 3 being most important/used. A 10-month curriculum was developed using a flipped classroom model with pre-recorded lectures and discussion sessions. Assessment periods include pre-/post-curriculum and 6-month retainment to address all levels of the Kirkpatrick Model of learning evaluation. The curriculum was accredited by the Tanzania Nursing and Midwifery Council to provide continuous professional development points and a sustainable local platform for the material. The needs assessment showed physical exam, respiratory system, and resuscitation as most important (mean 2.8, SD 0.4) and respiratory system (mean 3, SD 0), gestational age assessment (mean 2.9, SD 0.3), and physical exam (mean 2.8, SD 0.4) as most used. Twelve participants completed the pre-assessment with answers on individual questions ranging from 8-100% correct (Table 1). The needs assessment identified important and frequent topics in clinical nursing practice. An accredited neonatal nursing curriculum was co-designed. Pre-assessments reinforced key gaps. Next steps include curriculum implementation, post-assessment, and 6-month retainment. Table 1: Most known and least known topics from pre-assessment

Pre-Assessment Topic	Percentage Correct % (n)
Non-invasive Respiratory Support	100% (12)
Congenital Gastrointestinal Anomalies	100% (12)
Least Known Pre-ductal Oxygen Saturation	8% (1)
Invasive Respiratory Support	17% (2)
Positive Pressure Ventilation	17% (2)

Ms Emilia Biskop Lindgren

Title of Presentation

Separation between mothers and infants after birth- Reasons and mothers experiences

Abstract Submission

Background The importance of zero separation, with immediate skin-to-skin care as a main component, as the expected environmental requirement for better physiological outcomes for newborn infants are well described. Despite this, there is a gap between the knowledge of zero separation and existing practices in the care of newborn infants and their mothers.

Methods The sample is selected from the Mom2B cohort (N=>6500), a mobile application based ongoing national perinatal mental health cohort in Sweden. We included mothers (n=374) who had been separated from the infant after birth and who had completed the open-ended questions about separation. Thematic analysis was implemented.

Results One overarching theme, "Lack of organizational structures that enable couplet care" referred to the healthcare system being built in a way so that two individuals in need of care from different specialists could not stay together, even if the individuals in these cases were a newborn infant and their mother. The mother and infant were often separated even if only one of them was in need of care, due to routines or infrastructure.

Conclusions Units caring for mothers and newborn infants need to collaborate, communicate, plan, and be aware of the negative effects of separation. An event can be perceived as separation by some, and not by others, it is important for caregivers to be attentive to this experience. Mothers' experiences of and reasons for separation point to structural obstacles within the healthcare system that need to be addressed, in order to minimise the burden of separation.

Miss Michella Bjerregaard

Title of Presentation

Parents' shared experience of separation as a family after childbirth

Abstract Submission

Background: Despite the adverse physical and psychological consequences associated with separation of mother, father, and infant after childbirth, it remains common practice in most neonatal intensive care unit worldwide, due to a division of medical specialities into neonatal care and maternal care. Aim: To explore parents' shared experiences of separation after childbirth. Methods: A qualitative design, employing a phenomenological hermeneutic approach, was used with semi-structured dyadic interviews of eight parents of prematurely born infants. The analyses were guided by Paul Ricoeur's theory of interpretation. Findings: Two main themes, related to two temporal phases of separation, were identified. Initial separation elicited feelings of becoming a parent in different tempo, while the organisational separation led to a sense of being at the border of separation and closeness. Conclusion: Separation after childbirth complicates parent's entry into parenthood, fostering feelings of not being seen as one unit. This is especially due to the organisational separation where different departments are responsible of the mother and infant, respectively. Implication for practice: The findings emphasise the need of initiatives to reduce separation after childbirth such as implementing practices like zero separation and couplet care, contributing to strengthening family centered care.

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Miss Michella Bjerregaard

Title of Presentation

Establishing a partnership between researchers and families from a neonatal intensive care unit in a research project – experiences from researchers and families.

Abstract Submission

Background Involvement of patients and public in healthcare research has gained traction in recent years with focus on incorporating their perspectives in research. However, less is written about the process behind the involvement. **Aim** The aim was to explore the processes involved in establishing a partnership between researchers and families in a research project on couplet care from the perspectives of both researchers and families. **Methods** Six families attended six meetings and workshops, with the purpose of enhancing the quality of the research, address gaps and contribute to designing, conducting, and interpreting findings in the project. A descriptive inductive qualitative design was undertaken, comprising of two focus group interviews, one dyadic interview and four solo interviews of researchers and families. The interviews were based on a semi-structured interview guide tailored separately to families and researchers. Data is being analysed using content analysis described by Graneheim and Lundman. **Findings** A total of 10 parents and four researchers participated in the study, all without prior experience in patient and public involvement. Preliminary findings suggest diverse levels of involvement, ranging from being informants to active involvement in the research process. Flexibility, regular meetings, and clear expectation was crucial for the family's experience of involvement in the project. Families are motivated by their desire to contribute positively and help others; however, it also created a therapeutic space for personal reflection of their own experiences from the healthcare system.

Mrs. Mille Friis Bloch

Title of Presentation

Onboarding new nurses with a "Green-heart" concept

Abstract Submission

Background: In our huge NICU we have a large turnover of nurses. To retain the new nurses, we made efforts for better onboarding. We aim to ensure a good and safe start in formalized networks for new nurses in the NICU by creating opportunities to build confidentially relationships and a social network where they can reflect and find security. The initiative: Before job start, the experienced nurses (the mentors) each chooses a new nurse (the mentee) to have the best matches and connect to their mentees by mail. Photos of all new nurses are exposed in the staff rooms. All new nurses wear a green heart badge and decide by themselves for how long. They are assigned to a Green-Heart group of other new nurses until their transition to "advanced beginner" is completed, and they have built a strong sense of belonging to the NICU. The Green Heart creates a two-sides visibility about being new: new nurses can always recognize and help each other and make social connections, and the rest of the interdisciplinary health care team can take co-responsibility for the new colleague's well-being and professional development. Beside our well structured training program in professional competences, we arrange three Green-Heart cafes during the first year at timepoints where new nurses are known to experience a dip in motivation. In the second year the group continues in supervised nurse professional reflection teams. Conclusion: It has been important for the new nurses belonging to a group where they can mirror themselves.

Adjunct Associate Professor Margaret Broom

Title of Presentation

Enhancing Neonatal End-of-Life Care: An Experienced-Based Co-Design Approach to Staff Education

Abstract Submission

Background: End-of-life care in neonatal intensive care units (NICUs) presents a significant challenge, demanding effective education and support systems for staff to foster resilience and uphold best practices. This quality improvement project employs Experience-Based Co-Design (EBCD) to develop and evaluate a staff education program, drawing insights from family experiences of bereavement and staff encounters with dying infants. Methods: From 2017 to 2020, EBCD methodology engaged staff and bereaved parents through surveys, observational sessions, videoed interviews, and working groups. A touchpoint video, a project cornerstone, explores diverse aspects of neonatal end-of-life care. Staff surveys, initiated pre-project, were realigned in 2023 for pre-and-post workshop assessment. The refined program, post-COVID-19 hiatus, integrates face-to-face workshops, emphasising self-care, practical end-of-life care, and case studies. Results: The study team conducted six study days, with a pause during 2021-2022. Post resumption, the refined full-day workshop, facilitated by clinical experts, has garnered positive feedback. Preliminary data indicate participants adopting self-care strategies, highlighting satisfaction with clinical aspects, and valuing insights from parents. Conclusion: This groundbreaking study, utilising EBCD, creates educational and support resources for NICU staff in neonatal end-of-life care. Ongoing data collection and participant feedback aim to further refine the program, ensuring alignment with staff needs and enhanced care provision for dying infants and their families. Clinical Significance: In an environment as demanding as a NICU, staff well-being is paramount. This study underscores the importance of tailored education and support resources in maintaining a resilient workforce for optimal neonatal end-of-life care.

Adjunct Associate Professor Margaret Broom

Title of Presentation

Optimising neonatal nursing care: The Neonatal Nursing Outcomes Measures Study

Abstract Submission

Background: Neonatal nurses' practice should be grounded in high-quality evidence that enhance neonatal outcomes. However, limited evidence exists regarding the unique characteristics of neonatal nursing care and its impact on short- and long-term outcomes for neonates admitted to neonatal intensive and special care units. Method: In response to this gap, an Australian collaborative of neonatal nurse academics and clinicians initiated the Neonatal Nurse Outcome Measures Study (NNOMS) with the aim of identifying and prioritising the neonatal nursing interventions most effective in optimising neonatal care. Results: Utilising the Joanna Briggs Institute (JBI) scoping review framework, Phase 1 sourced systematic reviews from the Cochrane Database of Systematic Reviews and JBI Evidence Synthesis. In total 428 articles were identified, leading to the inclusion of 34 reviews with multiple nursing interventions reporting 137 positive outcomes. Phase 2 utilised an implementation science model, identifying 20 nursing interventions with high to moderate evidence impacting neonatal morbidity and mortality. These were mapped into 7 models aligned with national and international neonatal care standards. As part of Phase 2 neonatal nurse and parent representative focus groups prioritised 5 interventions to include in a neonatal nursing care bundle. Two publications from phase 1&2 are currently under review for publication. Conclusion: The 7 models provide a foundation for high-quality neonatal care. Evidence from this project can be translated in clinical practice to improve neonatal outcomes. Our team is currently in the planning stage of implementation study of the neonatal nursing care bundle (Phase 3) will be undertaken during 2024-25.

Adjunct Associate Professor Margaret Broom

Title of Presentation

Communicating Safely: Standardizing Nursing Clinical Reports for Effective Neonatal Care

Abstract Submission

Introduction: Canberra Health Services (CHS) advocates for the Introduction, Subjective, Objective, Analysis, Plan (ISOAP) format in clinical documentation. In the Neonatal Intensive Care Unit (NICU)/Special Care Nursery (SCN), the absence of standardized documentation in nursing clinical reports posed risks of misunderstanding, increased workload, and parent unease. In November 2022 CHS transferred all clinical documentation to a Digital Health Records System (DHR), our team undertook a new PDSA cycle to increase the uptake of ISOAP format in DHR. **Methods:** Built on the Institute of Health Care Improvement Model, the project embraced PDSA cycles (CHS QI No 2342). It included template (guidelines) development, educational initiatives, and clinical audits. Staff education utilized in-service training, emails, and one-to-one sessions. The study aimed to escalate ISOAP format usage from 2% to 50% (Jan 22), 90% (April 22), and sustain 90% (July 23) post DHR rollout. **Results:** Clinical report audits displayed a surge from 2% to 78% (3-months-post). A post-DHR audit in May 2023 revealed 65% ISOAP usage and 20% systemic format. Updates to the template and further staff education and support were implemented. A final audit July 2023 reported 92% used the ISOAP format. **Conclusion:** ISOAP implementation has enhanced standardized nursing documentation in NICU/SCN. It facilitates clear recording of neonatal observations, changes in condition, daily care plans, and family needs. Transitioning to DHR introduced challenges in maintaining standardized clinical documentation. **Significance:** This pioneering project establishes ISOAP guidelines for neonatal clinical documentation in NICU/SCN, addressing a crucial gap in standardized written communication for improved neonatal care.

Dr. Anne Brødsgaard

Title of Presentation

Father groups in the Neonatal Intensive Care Unit – A supportive intervention. An abstract for the Workshop: Fathers in the NICU.

Abstract Submission

Background: Fathers' involvement in the Neonatal Intensive Care Unit (NICU) has been shown to reduce the length of admission and positively impact infants' psychological, cognitive, and behavioural outcomes. Fathers often navigate an emotional rollercoaster during their infants' NICU stay, grappling with feelings of helplessness and a lack of control. Despite the societal expectation for fathers to exude strength, they typically refrain from sharing their fears and worries with their partners. However, there's a desire among fathers to connect with peers who have undergone similar experiences. The purpose was to describe fathers' experiences with participating in a father group during admission with their preterm infant in the NICU. Methods: Employing a qualitative content analysis, we examined ten online single semi-structured interviews with fathers of infants who participated in a father group during their infant's NICU admission. This group intervention, lasting 1½ hours, emphasized dialogue among fathers facilitated by a male healthcare professional from the NICU. Findings: The overarching theme emerged: "Mental encouragement and an enhanced capacity to cope with the situation." The theme was derived from five sub-categories and two categories: "A meeting with peers and sharing reflections" and "Fathers' territory." Conclusion: Integrating father groups into NICU practices and policies can prove advantageous in adopting a family-focused approach. Participation in such groups recognizes fathers as pivotal contributors to NICU parenting. It also enhances their mental well-being, empowers them to sustain a sense of control, and fortifies their coping capabilities - a collective advantage for fathers and their family units.

Dr. Anne Brødsgaard

Title of Presentation

How to support fathers of preterm infants in early parenthood – An integrative review. An abstract for the Workshop: Fathers in the NICU

Abstract Submission

Preterm birth induces significant stress, necessitating tailored paternal support. Despite evident need, intervention efficacy remains unclear. This review presents the evidence on existing healthcare interventions to support fathers of preterm infants in early parenthood, how effective they are and paternal experiences with the interventions. Guided by the Whittmore and Knafl integrative review process, a comprehensive literature search covered databases including PubMed, Embase, CINAHL, PsycInfo, Cochrane, Scopus, Web of Science, SweMed+, and Proquest Dissertation & Thesis Global. This review includes 18 studies, using qualitative and quantitative methodologies, assessed with the Mixed Methods Appraisal Tool. The analysis revealed three overarching themes: 1) Skin-to-skin contact supported interaction between infant and father, 2) information impacted paternal experiences of stress, anxiety, and development of fatherhood, 3) fathers' relationships with the nurses oscillated between conflict and assistance. Our findings underscore the potential of targeted interventions to support interaction between fathers and preterm infants, ultimately mitigating stress among fathers in this context. Fathers of preterm infants heavily depend on nursing professionals to facilitate their involvement in early parenthood. Concurrently, nurses play a pivotal role in executing interventions that engage fathers. It is imperative to foster a culture within the neonatal intensive care unit that promotes the active presence of fathers and augments nursing strategies aimed at educating and supporting fathers of preterm infants during the initial phase of parenthood.

Dr. Anne Brødsgaard

Title of Presentation

SUPPORT for first-time fathers of preterm infants in Early parenthooD – The SUPPORTED study An abstract for the workshop: Fathers in the NICU

Abstract Submission

The purpose is to support first-time fathers of premature infants in early parenthood by promoting early paternal-infant relationships. Improve paternal confidence by involving, knowledge sharing, and guiding them in their premature infants' emotional, nutritional, and developmental needs. The study operates with two study populations: a) first-time fathers, their premature infants, and families, b) healthcare professionals working with new families in neonatal intensive care units and maternity units and the families' health visitors from the secondary healthcare sectors. Seven hospitals located in Denmark's five regions participate. Three studies address the key questions for the father's involvement in supportive health care: 1) What are the first-time fathers' needs and preferences for supporting health care, 2) Develop an intervention based on the identified need to support the fathers in early parenting, 3) Study the process and effect of the intervention on paternal confidence and stress. The following are studied through an action research approach, identifying first-time fathers' needs for support and the current practices among health professionals towards new first-time fathers of premature infants. Secondly, developing guiding principles for health care professionals to strengthen fathers' partnership in health care. Finally, a quasi-experimental study will be conducted to evaluate the process and effect of the proposed approaches. The study of this paternal supportive programme adds the fathers' perspective from identifying needs through developing the intervention and testing and evaluating it. A combination of these perspectives has not yet been studied in Denmark or internationally.

Dr Mariana Bueno

Title of Presentation

The effectiveness of a multifaceted web-based resource in improving clinical pain practices in the NICU

Abstract Submission

Background & Aim The Implementation of Infant Pain Practice Change (ImPaC) Resource is a multifaceted web-based tool designed to support improvements in pain practice in Neonatal Intensive Care Units (NICUs). Our goal was to evaluate the clinical effectiveness of the Resource regarding the frequency of procedural pain and health care professionals' pain assessment and management practices. **Methods** A cluster RCT was conducted. After baseline (T1), eligible Canadian NICUs were randomized to intervention (INT) or waitlisted to standard practice (SP) for six months. Intervention effectiveness was determined at intervention completion (T2: intention-to-treat analysis) and following waitlisted SP intervention completion (T3: per protocol analysis). The protocol was registered at ClinicalTrials.gov (NCT03825822). **Results** Data from ~30 infants/site were collected from 23 NICUs (INT=12, SP=11) at T2 (INT=354, SP=325) and T3 (INT=678, SP=325). Adjusting for gestational age, the average number of procedures/infant/day was less in the INT group at T2 ($p<0.001$) and T3 ($p=0.003$). The proportion of procedures associated with pain assessment was greater in the INT group at T2 and T3 ($p<0.001$ for both). Pain intensity was lower in the INT group at T2 ($p=0.029$) and T3 ($p=0.028$). The use of pain management strategies was not significant at T2, but INT units implemented more non-pharmacologic strategies ($p<0.001$). At T3, INT units implemented more pain management strategies ($p<0.001$) and more non-pharmacologic strategies ($p<0.001$). **Conclusion** Implementing the ImPaC Resource effectively decreased the number of painful procedures, increased pain assessment and management practices, and reduced pain intensity.

Ms. Amanda Camacho

Title of Presentation

Development of a model to support the progression to direct breastfeeding in NICUs in the province of Quebec

Abstract Submission

BACKGROUND: While most NICU families initiate lactation, they face significant challenges in achieving their goal of direct breastfeeding, i.e., feeding at the breast. Most available literature on NICU feeding focuses on progression to “oral feeding”. This approach does not make a distinction between direct breastfeeding and feeding breastmilk by bottle despite the evidence showing the former better preserves breastmilk immunological and nutritional factors, improves physiological stability during feeding, and increases breastfeeding duration and exclusivity. **AIM:** To propose an innovative, evidence-based practice model for NICU nurses and other health-care professionals working with families that have decided to progress to direct breastfeeding. **METHODS:** A province-wide working group was created with unit managers, physicians, nurses, IBCLCs and an occupational therapist from level 2 and 3 units in Quebec (Canada), as well as members of the ministry of health and a regional public health department. Selected members reviewed the literature and considered expert opinion for model development. The larger group reviewed and convened to discuss its content at each step of the process. **RESULTS:** A comprehensive infant-driven model to guide practice has been developed and is presently under review. At the core of its innovation, it changes the paradigm from “progression to oral feeding” to “progression to direct breastfeeding”. The model presents different phases guided by the baby’s individual stability, cues, and development. **NEXT STEPS:** To promote this new approach to feeding progression so that it will be integrated into NICU protocols and help support families in Quebec and elsewhere to achieve their breastfeeding goals.

Mrs Diane Chalkright

Title of Presentation

A valuable forgotten skill set , Exchange Transfusion, '

Abstract Submission

Exchange transfusion has previously been a very common procedure within neonatology. However due to advances in antenatal care, anti-D treatment, phototherapy and immunoglobulin administration, exchange transfusion is a rarely seen procedure. As a result, medical and nursing staff no longer feel confident in carrying out this procedure. NeoSim, an inter-professional neonatal educational team, identified this gap in knowledge. They developed a comprehensive knowledge and skills based training programme to enhance knowledge of pathophysiology, equipment set up, procedure and potential complications. The course involved a short lecture with the physiology of jaundice, participants were then divided into groups and rotated around practical skills stations; calculations and prescriptions, equipment, setup and procedure and simulated complications. The course was open to medical and nursing staff and ANNP'S working in neonatal units throughout Northern Ireland. The course participants completed a pre-course questionnaire and a post- course evaluation. The results illustrated a significant improvement in knowledge and skills with everyone feeling more confident and recommending the course to other colleagues. Participants were also e-mailed infographics with main learning points from the training day to consolidate learning.

Dr Kathy Chant

Title of Presentation

Job satisfaction and intent to stay in neonatal nursing in England and Wales: a study protocol

Abstract Submission

Background In the UK 64% of neonatal units do not meet standards for nurse:patient ratios as recommended by the British Association of Perinatal Medicine (BAPM). Shortages of qualified neonatal nurses will be exacerbated by the number approaching retirement, emphasising the need for enhanced workforce retention. Neonatal nurses are at a high risk of moral distress due to the challenging neonatal environment; this is associated with burnout and lower job satisfaction. Understanding the current mood in neonatal nursing and the challenges nurses are facing will identify potential interventions to enhance retention. The aim of the study is to explore job satisfaction and intent to stay in neonatal nursing across England and Wales. **Method** A systematic review to identify previously trialled interventions to improve nurse retention will be conducted. An online survey of neonatal nurses will be conducted to measure job satisfaction (McCloskey Mueller Satisfaction Scale (MMSS)), burnout (Copenhagen Burnout Inventory (CBI)), and intent to stay (Nurse Retention Index (NRI)). All neonatal nurses in England and Wales will be eligible to participate. **Discussion** The study will generate evidence to support initiatives to enhance neonatal nursing workforce at local and national level. This information will identify geographical areas at high risk of shortages in workforce in the near future at all banding levels. It will provide an evidence base from which to develop and implement initiatives to improve recruitment into and retention to neonatal nursing. Increasing nurse retention will improve service provision and patient care by maintaining safe and effective working conditions.

Mr. Martin Chigwede

Title of Presentation

Knowledge, Attitude and Practices of Healthcare Workers' on Gastroschisis Pre-referral Management Interventions in Central Malawi

Abstract Submission

Introduction: Gastroschisis affects an estimated 16,000 neonates in Sub-Saharan Africa. In Malawi, a low-income country, bedside insertion of preformed silos and delayed closure for neonates with gastroschisis have been adopted in tertiary hospitals. Several challenges have been noted in Malawi, including the lack of knowledge in gastroschisis management immediately post-birth and prior to referral. **Broad objective:** To improve the management of gastroschisis during the pre-referral period in central Malawi. **Specific objectives:** 1) To assess healthcare professionals' knowledge, attitudes, and practices in gastroschisis pre-referral management; 2) To identify barriers to current gastroschisis policy adherence; and 3) To formulate evidence-informed interventions to enhance management of gastroschisis cases prior to referral. **Methodology:** This study adopts a comprehensive mixed-methods research design and consists of three phases: 1) Data collection; 2) Bundle creation; and 3) Implementation. Data will be collected using a self-administered, structured survey. The survey will include open-ended questions to ensure the perspectives of health care professionals providing pre-referral management interventions are captured holistically. Following the results, facility-specific interventional bundles will be created by the multidisciplinary team at the tertiary hospital and delivered in referral facilities identified during the study with the highest need for intervention. **Conclusion:** This promissory study addresses a critical element in the management of gastroschisis in Malawi. Although significant progress has been made in tertiary centers, improving pre-referral management of gastroschisis is necessary to reduce mortality in neonates. The results of this study are also applicable in other resource-limited settings, contributing much-needed evidence to global neonatal surgery.

Milcent Chintsanya

Title of Presentation

Investigating Vital Sign Alterations Within 24 hours Prior to Death in Children with Retinopathy-positive Cerebral Malaria at Queen Elizabeth Central Hospital, Malawi.

Abstract Submission

Background: Malaria is a significant obstacle to child health and survival. Plasmodium falciparum infections, especially in children under five, lead to high morbidity and mortality. Malawi, a malaria-endemic country in sub-Saharan Africa, has a high prevalence of infection and mortality rates. Cerebral malaria (CM) is a life-threatening complication characterized by coma, and its diagnosis can be improved by observing malarial retinopathy in children. Monitoring vital signs is essential for managing patients with CM. **Objectives:** To determine if changes in vital signs predict death in children with RPCM. **Methods:** This was a retrospective case-control study using data collected from children admitted to the Paediatric Research Ward at Queen Elizabeth Central Hospital in Blantyre between 1997 and 2020. Patients who died 24 hours or more after admission were matched with control patients who survived. Linear regression analyses were used to assess the differential time trends of each vital sign in the survivor group and death group. Classification models were used to quantify various vital signs' predictive power of death. **Results:** A decrease in Blantyre Coma Score (BCS) and an increase in respiratory rate was correlated with a fatal outcome. Changes in heart rate and temperature showed no correlation with death. **Conclusion:** Changes in respiratory rate and BCS have prognostic significance in the final 24 hours before death in children with cerebral malaria. Extra attention should be paid to these two vital signs as they may help to identify children who are at increased risk of deteriorating. **Key Words:** Plasmodium falciparum, cerebral malaria

Ms. Marla Conley

Title of Presentation

Preclampsia: Short-and Long-term Implications

Abstract Submission

ABSTRACT Does life inside the womb predict our future? Evidence suggests that our earliest experiences as a fetus may play a powerful role in predicting certain chronic diseases later in life. Preeclampsia (PE) is a hypertensive, pregnancy-specific disorder that results in a less-than-optimal environment for the growing fetus. It is defined as new-onset hypertension after 20 weeks gestation in the presence of maternal multi-organ failure. The pathogenesis is multifactorial, including dysfunction of the placenta, the vascular system, the renal system, and the immunological system. Treatment options are limited and often result in adverse outcomes to the fetus and newborn. Research continues to show that mothers and babies affected by PE are at increased risk for early-onset diseases such as hypertension, cardiovascular disease, kidney disease, metabolic syndromes, stroke, and other neurologic disorders. Preeclampsia is a major contributor to perinatal and maternal morbidity and mortality worldwide, generating a significant healthcare burden. Greater efforts to increase awareness about this serious disease should be prioritized to better the short- and long-term outcomes for these mothers and her offspring. Keywords: preeclampsia, eclampsia, morbidity, mortality, hypertension, cardiovascular disease, metabolic syndromes, neurologic dysfunction, prematurity, intrauterine growth restriction (IUGR), Barker's hypothesis

Mrs Julia Cooper

Title of Presentation

Partners in Care - how are you doing? A Benchmark Tool to Assess Family Integrated Care in Neonatal Units.

Abstract Submission

Following the Neonatal Critical Care Review (NCCR) (December 2019), Care Coordinators (CCs) were employed by East of England (EoE) Neonatal Operational Delivery Network (ODN) (June 2021). The objective of CCs is to support implementation of the NCCR recommendation - improving and enhancing the experience of families. Reinforced by the Three-year delivery plan for maternity and neonatal services, March 2023. A benchmark tool was devised in 2021, to achieve BAPM (British Association Perinatal Medicine) principles of Family Integrated Care (FIC), Bliss Baby Charter principles and UNICEF Baby Friendly Initiative neonatal standards. The tool enabled neonatal units to assess current practices, compare them against standards and best practices. The tool provides a user-friendly interface, allowing units to input their data and generate comprehensive reports, highlighting areas of excellence and areas for improvement. Thus, enabling units to prioritize their efforts and allocate resources effectively. The benchmarking tool facilitates collaboration and knowledge sharing amongst neonatal units allowing units to anonymously compare their performance with peer units, fostering a culture of continuous improvement and driving positive change in neonatal care. This tool has been shared nationally through forums and the CC network. The aims are to provide neonatal units and ODNs with a practical tool to assess progress towards meeting the NCCR recommendations to enhance the quality of care provided to neonatal families. In conclusion, this benchmarking tool offers neonatal units and ODNs a valuable resource to evaluate their performance in FIC, identify areas for improvement and benchmark against BFI standards, Bliss and BAPM recommendations.

Mrs Victoria Craig

Title of Presentation

Butterfly Hug / Safe Calm Place technique versus Tetris – a sequential mixed method feasibility study examining the acceptability of techniques to minimise post-traumatic stress symptoms of parents in the Neonatal Unit

Abstract Submission

Objective: To conduct a feasibility and acceptability study to examine if playing Tetris or using the Butterfly Hug / Safe Calm Place (BH/SCP) technique can be introduced into the Neonatal Unit to minimise post-traumatic stress symptoms. Background: Post-traumatic Stress Symptoms (PTSS) are a significant problem in the Neonatal Unit (NNU) and beyond. Previous studies have considered EMDR (Eye movement Desensitization and Reprocessing) or the computer game Tetris in minimizing PTSS following a traumatic birth as they influence the storage of traumatic memories. It is proposed that the BH/SCP (a form of EMDR) or Tetris may be effective for preterm parents. Participants: Sixty-four parents of infants born at 33+ 6 weeks gestation or less will be recruited. Each set of 8 parents will be allocated to care as usual, playing Tetris, using the BH/SCP technique, or using either /both techniques. Staff in the Neonatal Unit will also partake in focus group discussions at the end of the study. Methods – Phase one: Participants are asked to use the allocated techniques when they feel anxious or stressed, at least once each day. Online surveys will be completed on recruitment and regularly during their time in the NNU to demonstrate efficacy. A final survey will be completed post-discharge. Phase Two: Focus group discussions with parents and staff will address the acceptability, feasibility and perceptions of the techniques. Discussions shall undergo thematic content analysis to ascertain the feasibility and acceptability of the study. Results: Awaited (word count: 240)

Mr. Josephat Cyprian Mutakyamilwa

Title of Presentation

Periodic mentorship to improve coverage and quality of newborn care in Dar es Salam, Mbeya and Kilimanjaro regions in Tanzania

Abstract Submission

Background: Most African countries including Tanzania must double or triple rates of progress to reach Sustainable Development Goals (SDG) 3.2 target of fewer than 12 neonatal deaths per 1,000 live births by 2030. NEST360 in collaboration with MoH Tanzania has been conducting regular training and mentorships to clinical and biomedical staff in the implementing facilities. Materials & Methods: Equipment user training, national guidelines for neonatal care courses, and the generic instructor courses (GIC National Operational Guide for Integrated Competence Based Clinical Mentorship in Maternal, Newborn, Child and Adolescent Health Services) were used to select mentors. The mentorship structure followed the. Through the NEST360 implementation tracker (NEST IT), mentors were able to identify mentorship gaps and then conduct three-day mentorship sessions in the labor and delivery ward, operating room, postnatal ward, and neonatal unit. Regular follow-ups on agreed-upon action plans and data tracking using NEST IT were conducted Results: A 28% increase in prophylactic CPAP coverage was observed. This coverage was observed to fluctuate over time between 77% to 100%. A similar 26% improvement in babies with no hypothermia during hospital stay was also observed. KMC has also seen marked improvement with 57% of all facilities either on target or improving. Facility personality including committed and accountable leadership, and data use attributed to the change and variability in performance between implementing facilities. Variety of CPAP brands may also have contributed to an increase in CPAP coverage Conclusion: Clinical mentorship may help trigger improvement in the coverage and quality of newborn care intervention.

Muna Dahir Hassan

Title of Presentation

Introducing early neonatal training and education for undergraduate Children's nurses and midwives.

Abstract Submission

Title: Introducing early neonatal training and education for undergraduate nurses and midwives. **Background:** Traditionally, neonatal nurse education commences after nurses have qualified and entered neonatal units, typically 1-2 years into their junior nursing roles. Staff shortages and a decline in specialised neonatal nurses have led to an increased responsibility for newly qualified nurses in handling complex neonatal cases. Limited funding for specialised neonatal training further exacerbates the issue, leaving these nurses to care for vulnerable patients with inadequate theoretical knowledge. Additionally, midwives may find themselves caring for sick neonates in transitional care units without any recognised specialty training. **Objective:** To integrate neonatal special care training into the undergraduate curriculum for both nurses and midwives, aiming to enhance neonatal care and improve family outcomes. **Methods:** Establishing an optional module for undergraduate Children's nurses and midwives to undergo the initial stage of in-specialty training. The module encompasses comprehensive instruction in the care of neonates requiring special attention. Experienced senior neonatal nurses provide insights into the physiological vulnerability of neonates, covering common conditions and their treatments. The module incorporates family integrated care, featuring FiCare specialists and parents who contribute their knowledge and emphasise the importance of collaborative family involvement. **Results:** Nurses and midwifery students express a heightened sense of preparedness and understanding regarding the distinctions between paediatric and neonatal care. The module has received positive evaluations, leading to a notable number of undergraduate nurses opting to specialise in neonatal nursing. The future objective is to incorporate adult nurses into the module, as there is a significant percentage of nurses trained in adult care currently working within neonatal care. **Conclusion:** The gap in education and training for neonates has been effectively addressed by integrating neonatal care into undergraduate education. This integration ensures the early recognition of signs of neonatal deterioration, enabling timely interventions for the care of vulnerable neonates, leading to an improvement in neonatal and family outcomes.

Miss Muna Dahir Hassan

Title of Presentation

Introducing early neonatal training and education for undergraduate Children's nurses and midwives.

Abstract Submission

Background: Traditionally, neonatal nurse education commences after nurses have qualified and entered neonatal units, typically 1-2 years into their junior nursing roles. Staff shortages and a decline in specialised neonatal nurses have led to an increased responsibility for newly qualified nurses in handling complex neonatal cases. Limited funding for specialised neonatal training further exacerbates the issue, leaving these nurses to care for vulnerable patients with inadequate theoretical knowledge. Additionally, midwives may find themselves caring for sick neonates in transitional care units without any recognised specialty training. Objective: To integrate neonatal special care training into the undergraduate curriculum for both nurses and midwives, aiming to enhance neonatal care and improve family outcomes. Methods: Establishing an optional module for undergraduate Children's nurses and midwives to undergo the initial stage of in-specialty training. The module encompasses comprehensive instruction in the care of neonates requiring special attention. Experienced senior neonatal nurses provide insights into the physiological vulnerability of neonates, covering common conditions and their treatments. The module incorporates family integrated care, featuring FiCare specialists and parents who contribute their knowledge and emphasize the importance of collaborative family involvement. Results: Nurses and midwifery students express a heightened sense of preparedness and understanding regarding the distinctions between paediatric and neonatal care. The module has received positive evaluations, leading to a notable number of undergraduate nurses opting to specialise in neonatal nursing. The future aim is to include undergraduate nurses specialising in adult care, as there is a significant proportion of adult qualified nurses working within neonatal units. Conclusion: The gap in education and training for neonates has been effectively addressed by integrating neonatal care into undergraduate education. This integration ensures the early recognition of signs of neonatal deterioration, enabling timely interventions for the care of vulnerable neonates, leading to an improvement in neonatal and family outcomes.

Mr Colm Darby

Title of Presentation

Sitting Lumbar Punctures- a Quality Improvement Project

Abstract Submission

Bacterial meningitis is of high risk to neonates after birth (0.3 per 1000 births), with a known association with significant mortality (10%) and impactful morbidity (20-50%). Meningitis is confirmed through diagnosis of cerebrospinal fluid (CSF) analysis. CSF is obtained through a lumbar puncture procedure; however, this procedure is difficult with published success rates between 50-60% when compared with older children. Difficulties include obtaining CSF or obtaining CSF that is not heavily blood stained, leading to misinterpretation of positive results. Often repeated procedures are required or prolonged antibiotic course of intravenous antimicrobial agents (14-21 days). In a district general hospital in Northern Ireland, we decided to evaluate a quality improvement intervention to adjust the lumbar puncture technique in the neonatal unit. Aim: To assess if Sitting Lumbar Punctures in the neonatal unit were a better alternative to side lying lumbar punctures
Method: Data collected on number of attempts, success rate and qualitative comments from the therapeutic holder and the task performer. Audit Results 20 babies recorded from March 2020 to March 2023 14 Sitting LP (Failure rate 42% on 1st attempt) 6 Side Lying (failure rate 83% on 1st attempt) Practitioner Feedback • 7- Infant less distressed in seated position • 2- Infant slept through sitting position • Sitting position- holder prefer as less restraint • Sitting position tolerated well on ventilated infant • Multiple attempts at lying LP but successful on 1st attempt of sitting • Easy to identify landmark in sitting position PDSA Recycle • Standard practice for Sitting LP • Aide Memoire on PNW and NNU • Updating audit pro forma • Training video • Presenting audit findings at regional, national and international conference.

Mr Colm Darby

Title of Presentation

The Pro-Vac Movement- Promoting conversations about vaccine safety: A Quality Improvement and Education Initiative.

Abstract Submission

Background: Despite the overwhelming benefits of vaccination some choose not to vaccinate due to safety concerns, resulting at least in part to a rise in the vaccine preventable diseases such as measles. Interactions between Health Care Professionals (HCPs) and parents help to alleviate vaccination concerns and potentially increase vaccine confidence and uptake. Aims: • What is the prevalence of vaccine concerns in antenatal mothers in a District General Hospital over one-month? • Can information sessions for families and HCPs improve their confidence in vaccine safety? Methods: Trust ethics governance team deemed this a quality improvement project and did not require ethics approval. Following parental consent, data from 147 questionnaires by antenatal mothers was analysed and informed the structure of education sessions. 11 Bespoke 'vaccine safety' sessions for both HCP and families were undertaken. Vaccine confidence pre & post sessions were analysed. Results: Majority of mothers had no concerns about vaccination (n=126, 86%) with commonest concerns being 'fever and allergic response' and 'link between MMR vaccine and autism'. 3 'Vaccine safety' sessions for families significantly increased their confidence in vaccine safety (p=0.0004). 8 'Vaccine safety & having conversation' sessions attended by 113 multidisciplinary HCPs significantly increased their confidence (p<0.0001) with greatest increase in post score confidence in Nursing & Medical students. Highest post score confidence was among General Practitioners. Conclusions Majority of families are confident about vaccine safety. Educational sessions for families and HCPs facilitate increase confidence in vaccine safety and improve conversations with parents who express hesitancy around routine childhood vaccinations. Self-reflection on vaccine safety awareness offers opportunity for staff to seek education and enhancement in this area to improve care delivery and parental interaction.

Mr Colm Darby

Title of Presentation

Humidified rPAP Stablisation and Delivery Room Cuddles

Abstract Submission

Background: • Skin to skin contact in delivery suite is an early, vital part of family integrated care. • Use of CPAP facilitates this with the very preterm infant. • The benefits of humidification in respiratory support are well established. • Humidification of gas using rPAP® device facilitates longer skin to skin time while providing stable respiratory support.

Aims: • To provide humidified gas for all babies <34 weeks gestation who require initial stabilisation in delivery suite through the use of rPAP®. • At start of project, no baby was receiving humidified gas in delivery suite. Humidification began in December 2021. Method for change: • Multi-directorate partnership between midwifery, neonatal and medical technical staff. • Acquisition of the necessary equipment. • Staff education using written, pictorial and video materials. • Development of neonatal stabilisation protocol. • 3 resuscitaire equipped with humidifier chambers. • ‘One stop box’ with all equipment needed.

Results: • 2022: 34% of babies eligible; <32 weeks gestation, received rPAP® at delivery. Of these, 20% received humidification. • 2023 to date: 75% of babies eligible received rPAP® at delivery. 100% of babies receiving rPAP® received humidification. • Parents reported improved experience with facilitation of skin to skin which were denied previous in other hospital visits. • Reports reported improved bonding with the child that facilitated skin to skin throughout their neonatal journey.

Conclusion Humified gases through a rPAP device is safe and effective for preterm infants whilst facilitating a family integrated care model from the moment of birth. Neonatal unit should consider best practice to stablisation of infants at birth which is evidence based and develops a culture of inclusion and parental autonomy.

mr Colm Darby

Title of Presentation

Understanding the power of Patient and Public Involvement (PPI) in developing neonatal research studies.

Abstract Submission

Introduction Public and Patient involvement (PPI) can improve the quality and relevance of research. It can result in better research studies as PPI representatives bring a different perspective to the study and can help prevent poor research questions by focusing on areas that patients consider to be important. **Methodology** Parents who had infants in a neonatal unit in a district general hospital were invited to attend a PhD study development workshop. The workshop was led by researchers developing a protocol exploring the prevalence of post-traumatic stress disorder in parents who have had an infant in a neonatal unit. The workshop developed a Protocol Development Group consisting of 4 parents. Semi-structure interviews explored the advice from the parents on recruitment, timepoint for data collection and co-design element. **Results** Parents advised that they would be more likely to express interest in joining the study when approached by a nurse looking after their baby than by scanning a QR code or a poster. Whilst initial data collection was going to occur at 1 month and 6 months, the PPI group advised to collect data on PTSD prevalence at 6 weeks, 6 months, and 12 months. Mothers expressed that the thought of returning to work was a trigger for memory recall of their time in the neonatal unit. Mothers expressed that interviews with fathers should be separate from them as many of their partners admitted to hiding emotions to appear 'strong' for them. **Conclusion** PPI allows the research team to understand the needs of the participants and develop recruitment practices that optimise the study potential. A PPI Study Advisory Group will be developed with participants in the study and strengthen the co-design and co-production element of the Neo-SILT study: Neonatal: Someone Is Listening to Trauma Study.

Mr Colm Darby

Title of Presentation

Developing collaborative networks amongst Advanced Nurse Practitioners in neonatal units across Northern Ireland and the Republic of Ireland- a whole island approach.

Abstract Submission

Whilst Northern Ireland and Republic of Ireland occupy the same land mass, the healthcare systems are vastly different. Northern Ireland adheres to the National Health Service of the United Kingdom and the Republic of Ireland has a private and public health service provided through insurance assessment. With different financial support, the Neonatal Nurses Association (NNA) in Northern Ireland was keen to develop working relationships and networks across the Island of Ireland to share knowledge and skills of neonatal nursing through the Advanced Nurse Practitioner route. Advanced Nurse Practitioners have been established across the 2 countries for over 15 years however, the growth in this workforce has only started to rapidly rise in the last 5 years with a doubling of Advanced Nurse Practitioners within neonatal units. The NNA have created opportunities, with support from sponsors, to develop forums where all advanced nurse practitioners within the field of neonatology have been able to come together and share audits, service developments, quality improvement projects and collaborate on cross country projects. At each annual forum, news of how services have been enhanced from knowledge gained previously has strengthened the collaborative approach to improving neonatal outcomes. The NNA are committed to developing the cross country relationship and appraising the growth of the workforce within Advanced Practice to ensure that we can support all neonatal nurses to feel valued and confident in their roles to deliver the best care to all babies and their families.

Mr Colm Darby

Title of Presentation

All- Ireland Advanced Neonatal Nurse Practitioner Forum- Forging cross countries connections to deliver improve neonatal services.

Abstract Submission

Northern Ireland and Republic of Ireland have a long tradition of collaborative working with healthcare services. Shared goals of creating improved healthcare provisions for all citizens on the one island have resulted in established cross country programmes such as the all-Ireland paediatric cardiac services which deliver surgical interventions for children with cardiac conditions in Northern Ireland that required emergent or routine care. Unfortunately, the expanse of this “one country- one service” approach is hampered by political divide, differing country status and different healthcare delivery and funding. Neonatal services within both countries are underfunded and underappreciated. With no Operational Delivery Network for neonatal services within either country, continuity or consistency of standard practice of care for neonates has not yet been achieved. The Neonatal Nurse Association deliver collaborative working with many organisations and charities across the UK however, impact is reduced in Northern Ireland due to lack of healthcare funding and support for neonatal services with many units working in silo. The Neonatal Nurses Association in Northern Ireland have been leading on cross country links with Advanced Nurse Practitioners in neonatal units in the North and South of Ireland. The annual All- Ireland Advanced Neonatal Nurse Practitioner Forum facilitates the networking of health professionals to share best practice and quality improvement projects. The sharing of ideas and strategies to improve neonatal services across the countries have resulted in implementation of several quality improvement projects such as the Less Invasive Surfactant Administration, Resuscitation Proformas, Probiotics for Preterm infants, Transitional Care service development and Antimicrobial Improvement through Blood Culturing Practices.

Ms Ruth Davidge

Title of Presentation

Feasibility of caregiver-involvement in the clinical monitoring of newborns and young infants

Abstract Submission

Background. Hospital monitoring of newborns is often inadequate and delayed recognition of signs of illness, leading to poor outcomes, has remained a key challenge at the community level. **Objectives.** To evaluate the acceptability, usability and use of participatory monitoring, using a Family Monitoring tool, amongst caregivers and healthcare workers, and the effectiveness of the tool with regards to caregivers' confidence and knowledge levels. **Methods.** A mixed methods descriptive study was undertaken in four hospitals in KwaZulu-Natal South Africa. Participants included long-stay mothers in Kangaroo Mother Care (KMC) units, short-stay, post-Caesarean section, mothers in postnatal wards; and healthcare workers in these units. Pre- and post- exposure caregiver knowledge questionnaires, audits of the completed Family Monitoring tools, caregiver focus groups and healthcare worker questionnaires were conducted. **Results.** 262 mothers were recruited: 109 mothers in the KMC group and 153 mothers in the postnatal group. Acceptability of Family Monitoring was good, with 91.7% of mothers and healthcare workers wishing to continue using the tool in the future. The completion rate was 92.2% among mothers and 66.7% among healthcare workers. Mothers' confidence ratings were similar in the KMC and postnatal groups. The mean knowledge score was 78.0% pre-exposure and 80.6% post-exposure with a mean increase of 4.3% ($p < 0.001$) overall. **Conclusions.** Implementing the Family Monitoring tool was acceptable to mothers and healthcare workers, with significant increases in the mother's knowledge scores and high completion rates among mothers indicating its ease of use. Incomplete record keeping by healthcare workers remains a challenge in our context.

Dr. Wakako Eklund

Title of Presentation

Tiny and Forgotten? Urgency surrounding paucity of studies to bring new therapies to neonates. Nurses have a role to play.

Abstract Submission

The International Neonatal Consortium (INC) is dedicated to neonatal drug development and data sharing. INC addresses the urgent need to expand and promote research for neonatal specific therapies. European Medicines Agency (EU), Federal Drug Administration (USA), Health Canada, PMDA (Japan), and other industry partners collaborate to achieve improved system for neonatal studies. COINN and the National Association of Neonatal Nurses along with parent advocates serve as part of INC's leadership team. We traditionally believed that conducting neonatal research was risky and unsafe. Today all the stakeholders believe that not conducting neonatal-specific research is unethical. Neonates have been traditionally exposed to therapies studied for adults or older children and not with neonatal specific physiology in mind. Some of the therapies were simply adjusted to the "smaller size human beings". Surfactant and antenatal steroids are the only neonatal-specific therapies studied and approved in the last 3 decades. Research findings with potential to impact the neonates are emerging globally. However, survey results demonstrated that many neonatal nurses lack training or experience in clinical trials yet are asked to support the study protocols. How the nurses perceive the research culture makes a significant difference. Nurses at the bedside are often the most important consultant to the families when they are approached with any research. This presentation focuses on the urgency surrounding neonatal studies, and findings from the INC global survey focused on nurses' knowledge or perceptions regarding clinical research. Recommendations for further study/training and critical role of nurses in research space will be presented.

Anna Francis

Title of Presentation

Baby steps: Our Neonatal Journey- A project to develop an alternative to neonatal parent passports

Abstract Submission

This project emerged from the need to create a network "parent passport," jointly undertaken by the Kent, Surrey, and Sussex (KSS) neonatal ODN and Thames Valley and Wessex (TV&W) neonatal ODN. The goal is to support families moving across the region and receiving care in any of the 27 neonatal units. Existing parent passports were underutilised, and not well embedded prompting collaboration with the Parent Advisory Groups (PAG) to co-produce a solution. Families expressed a desire for a non-competency-based, personal document that reflected their neonatal care journey, distinct from traditional tick-box documents. Struggling to align family and staff needs, the project drew inspiration from Liverpool Women's Hospital, who produced a series of picture cards depicting various caregiving activities which families can get involved with. Each card includes content on the reverse side co-created to guide parents. The content has been co-produced by KSS and TV&W Allied Health Professionals, Psychologists, PAGs, care co-ordinators, and local unit staff. QR codes lead to trusted websites for additional resources, in many cases supporting easy reading, text-to-speech, and translation into multiple languages. This visual concept serves as a prompt for families and the multi-disciplinary team to discuss and initiate different steps and support Family Integrated Care. As families add cards, an individual bespoke keepsake that documents the families' neonatal journey is created. The cards will travel with the family if they have care in another unit, ensuring continuity, avoiding duplication, and reducing parental stress when moving between units.

Mr Anne Marit Føreland

Title of Presentation

Skin-to-Skin Contact immediately after very preterm birth

Abstract Submission

Traditional care immediately after very preterm birth separates the mother and child by the transfer of the infant to the neonatal intensive care unit. A nonseparation approach is currently being considered, allowing early skin-to-skin contact in the delivery room/postoperative care unit. The feasibility is shown in a recently published RCT*. To gain more knowledge about mothers' own experience of separation or skin-to-skin contact immediately after birth, we performed a qualitative study** including participants from the RCT. Individual semi-structured interviews with five mothers from each of the two groups («separation»/ «immediate skin-to skin-contact») was conducted. Content analysis revealed that both groups' experiences were characterized by (i) mothers' need to be affirmed of their infants' vitality, (ii) bonding challenges, and (iii) benefits of skin-to-skin contact. We suggest that early skin-to-skin contact after very preterm births is crucial for the bonding process and mothers' feelings of safety and well-being. When early skin-to-skin contact is infeasible, our findings reveal the significance of photos, information, and the father's presence at the time of postpartum separation. Implications for practice. Immediate skin-to-skin contact following very preterm birth is a goal for future treatment. This is in line with WHO's new recommendations ***. Practical guidelines for implementation can be useful and are available in Kristoffersen, et al (2023) (see Data supplement 1)* and in Brimdyr et al (2023)(see Appendix S1) ***. *Kristoffersen, et al. *BMJ Paediatr. Open.* 2023;7(1):e001831. 10.1136/bmjpo-2022-001831 **Føreland, et al. *Glob Qual Nurs Res.* 2022;9. <https://doi.org/10.1177/23333936221097116> ***<https://www.who.int/publications/i/item/9789240058262> **** Brimdyr, et al. *Acta Paediatr.* 2023;112. <https://doi.org/10.1111/apa.16842>

Ms Nadine Griffiths

Title of Presentation

Development of a screening process for parental depression and parenting stress after discharge from a surgical neonatal intensive care unit

Abstract Submission

Background: Admission to a surgical neonatal intensive care unit (sNICU) is a stressful experience for infants and their parents. Little is known about the effects of sNICU admission on parental wellbeing after discharge. **Methods:** A cross-sectional survey was administered at 4-months corrected gestational age to 45 parents of infants who had undergone surgery. Parenting Stress Index™ Fourth Edition Short Form (PSI-SF) and Center for Epidemiologic Studies Depression Scale (CES-D) were used to assess parenting stress and depressive symptoms. The study team developed a triage process; initial responses screened by a psychologist, and secondary screening and intervention conducted by a social worker and clinical nurse consultant. **Results:** Forty (88%) parents, (89% mothers) were screened. Twenty-one (52.5%) parents results were deemed at-risk requiring secondary screening. Five (12.5%) parents required screening of the infant's medical history only. 12 (30%) parents had a positive secondary screen and were contacted by email and provided links to community-based resource services. One family in this group contacted the study team directly seeking parenting support and resources prior to screening. Five (12.5%) parents met the criteria for direct contact and for referral to community mental health services; one parent had existing community support services which were contacted. One parent was receiving support for ongoing trauma and was not contacted despite a positive screen. **Conclusions:** We found a multidisciplinary standardised screening protocol was feasible and effective in establishing referrals to services for families at risk. The results suggest screening should be extended to all families discharged from the sNICU.

Ms Nadine Griffiths

Title of Presentation

Stress and self-regulation behaviours during nurse-delivered caregiving for infants post-surgery.

Abstract Submission

Background: Nurse-delivered caregiving in the neonatal intensive care unit (NICU) is recognised as a frequent, necessary, and stressful intervention. Little is known of infants' behavioural responses during caregiving for infants post-surgery. Methods: A prospective observational study conducted in a surgical NICU collected infant behavioural video data recorded by web-camera during caregiving. Video data (1,608 minutes) were analysed by two independent reviewers to evaluate infant state, stress, and self-regulation behaviours. A composite score was calculated for infant stress and self-regulation behaviours. Results: Forty-five infants, mean gestational age 36.9 weeks (SD 2.3), participated in the study. Twenty-four infants (53.3%) had gastrointestinal (GIT), 11 (24.4%) cardiac, and 10 (22.2%) respiratory/oesophageal surgery. Stress and self-regulation behaviours were observed across all groups. Squirm, splay, and limb extension behaviours were the most frequent indicators of stress. Hand-to-face, hand-to-mouth, foot clasp, leg brace and sucking were the most common self-regulation behaviours. Stress scores were significantly related to self-regulation scores for GIT ($\rho=.71$, $p<.001$) and cardiac ($\rho=.81$, $p=.002$) infants, and to decreasing gestational age for GIT infants ($\rho=-.55$, $p=.007$). Stress scores decreased as self-regulation scores increased for respiratory/oesophageal infants ($\rho=-.75$, $p=.021$). For cardiac infants, stress scores increased as severity of illness increased ($\rho=.74$, $p=.010$) and self-regulation scores correlated with increasing gestational age ($\rho=.74$, $p=.010$). Conclusions: Differences were observed between groups and may represent congenital anomaly specific effects. Clinicians may benefit from information of expected responses for infants with specific conditions to alleviate caregiving stress and support infant self-regulation attempts.

Mrs. Jannie Haaber

Title of Presentation

Developing a structured non-pharmacological intervention for supporting infants during Less Invasive Surfactant Administration

Abstract Submission

Background and aim: Less Invasive Surfactant Administration (LISA) is the recommended method to apply Surfactant to preterm infants with respiratory distress syndrome. Non-pharmacological measures to decrease pain and distress during the LISA procedure are used worldwide but poorly described and vary between NICUs. We aimed to develop a structured NON-pharmacological Approach to the LISA procedure to reduce pain and discomfort in preterm infants. Method: A national interdisciplinary team of NIDCAP trainers, nurses, and neonatologists developed a LISA standard operating procedure (SOP) using iterative rounds of group discussions until unanimous consensus was achieved. The interventions included in the LISA-SOP were based on current NIDCAP principles and the available evidence base. Results: In the LISA-SOP, one nurse is responsible for the non-pharmacological approach, including adjusting the environment, positioning and swaddling the infant, and administering breastmilk or oral sucrose. The same nurse continuously supports the infant manually and assesses the infant's work of breathing, and distress and pain using a modified COMFORTneo score. The procedure can start with a score between 8-13 and sufficient respiratory drive. If the score is ≥ 14 during the procedure or respiratory drive is insufficient, the procedure may be paused, and non-pharmacological measures must be improved, and analgesia added if needed. Conclusion: We developed a standardised non-pharmacological approach to reduce pain and discomfort in preterm infants during the LISA procedure. The approach is now standardized across all NICUS in Denmark and its effect is currently being investigated in the NONA-LISA trial (NCT05609877).

DR Helle Haslund-Thomsen

Title of Presentation

Pilot testing auricular acupuncture as stress relieving intervention for parents to hospitalized infants in neonatal intensive care unit (NICU)

Abstract Submission

Background and Aim Parents to hospitalized children in NICU are at increased risk for development of stress, depression, and PTSD during and after hospitalization. NADA is a stress relieving auricular acupuncture treatment and is used ex in prisons and has shown effect on the ability to provide care for caregivers. NADA is not yet tested on parents at NICUs. The aim of this pilot study was to explore parents' experiences of NADA related to stress and wellbeing. **Methods** Two experienced neonatal nurses (20 years of clinical work) got education in NADA and obtained certification to provide NADA. NADA was offered to parents to hospitalized infants. NADA was planned individually, and the number of treatments varied. Informed consent was obtained, and the study was approved ethically. Parents received NADA individually. After NADA treatment a short questionnaire was presented. This included ratings on stress, sleep quality and physical well-being and free additional statements. **Results** In total 41 parents participated in our study. Of these 23 had less than three treatments. There is a change on the measurement of stress, sleep and physical activity before and after the NADA treatment. The level of stress is lower, sleep and physical well-being is improved after treatment with NADA. Additionally various positive experiences related to NADA were reported. **Conclusion** This pilot study shows that NADA might be a promising intervention to parents in NICU to reduce stress potentially helping to mobilize mental energy to attachment processes and establishment of parenthood. Further studies are needed.

Mrs Kelly Hauman

Title of Presentation

DETERMINING RESEARCH PRIORITIES ACCORDING TO DUTCH NICU NURSES

Abstract Submission

Purpose: To prioritise research topics according to nurses in Dutch level III neonatal intensive care units and provide insight in their needs regarding the involvement and knowledge in research. **Design:** A national multicentre cross-sectional digital survey among all Dutch NICU nurses was performed. The survey was based on a list of 43 research topics in 8 domains resulting from a previous European Delphi study. Topics and domains could be rated on a Likert scale, ranging from 0 to 10 (no priority to highest priority). Open questions on involvement and perceived lack of knowledge were added. **Results:** 294 nurses of 9 neonatal intensive care units responded to the survey. Nurses scored research topics with mean scores from 6.44 to 8.24. Top five research topics, in descending order of priority were: 1) Identifying optimal nurse staffing levels (mean 8.24; SD 1.78), 2) identifying effective interventions to prevent or reduce pain and stress (mean 8.13; SD 1.46), 3) evaluating sepsis management and care to improve outcomes (mean 8.02; SD 1.46), 4) improving healthcare team communication and collaboration (mean 7.99; SD 1.78) and 5) identifying best practice in the care of the mechanically ventilated infant (mean 7.90; SD 1.57). Nurses stated they needed more communication about research to feel more involved. They also want to learn more about the set-up of research and how to search, assess and interpret scientific literature. **Conclusion:** This research prioritisation can be used as a guide to design nursing research that aligns with nursing needs.

Mrs Christine Heald

Title of Presentation

Little Star Beads for NNU/NICU Babies

Abstract Submission

Williams et al (2018) identified communication between parents and staff, and the bedside manner of staff, as major stressors experienced by parents with a baby in an NNU. They have an increased risk of postnatal depression (O'Donovan & Nixon, 2019). This can contribute to them parenting from guilt, fear and anxiety, affecting bonding (Mihelic, Morawska & Filus, 2018). With these studies in mind, the Little Star Beads were introduced to SJOGH in May 2023. During weekly meetings, how parents are coping with the admission is monitored and issues addressed rather than allowing them to manifest into a larger issue. Resources are available regarding counselling services, how to access them and pastoral care can provide support. The primary aims of this program is to promote communication between staff and parents and improve parental mental health during admission. Parents have informally reported an improved understanding of their neonate's admission, and the beads provide validation of their neonate's experience. They feel debriefed regarding the admission-discharge journey. I have recently formalised a survey which parents will be asked to complete at discharge and I will be forwarding the survey to previous parents to collect data regarding the program. Doctors Honore and Simonsen (Neonatologists) saw the beads when they visited our NNU. They suggested this program, consisting of 33 beads specific for neonates, would be a valuable addition to their NNU and have asked for assistance. The Stella Bella Foundation is interested in expanding their network of partner hospitals and fully support this submission/abstract presentation.

Mrs Sunna Guðrúnardóttir Herrmann

Title of Presentation

Sustained improvement in hand and arm hygiene compliance among health personnel in a Danish level IV NICU

Abstract Submission

Background and aim: A Danish NICU experienced a persistent MRSA outbreak spanning over 3 years. Hand hygiene is identified as key infection prevention measure. This study aimed to enhance hand and arm hygiene compliance and curb the MRSA outbreak. Methods: A baseline observational study assessed hand hygiene compliance among NICU health personnel over three days in March 2023. Data on fulfilled hand hygiene opportunities, disinfection duration more than 30 seconds, and forearm inclusion were collected. Perfect hand and arm disinfection included all three. A one-month intervention-bundle, involving collective hand and arm disinfections several times daily, was implemented. Observational studies were conducted one and six months post-intervention to evaluate the retentive effect of the intervention. Results: The intervention significantly improved overall compliance from 72% (114/158) to 87% (123/141) (RR 1,21 - P = 0,001) and 88% (94/107) (RR 1,22 - P = 0,001) after one and six months, respectively. Forearm inclusion doubled post-intervention (P = 0,0001) and remained high six months later (Pre-intervention 28% (31/110), post-intervention 58% (71/123), follow-up 52% (49/94). Perfect hand and arm disinfection improved from 6% (9/158) to 16% (22/141) (RR 2,74 - P <0,01) and 32% (33/107) (RR 5,57 - P < 0,0001) after one and six months, respectively. Conclusion: Forearms are often overlooked in the disinfection process. The intervention improved compliance after one and six months. The MRSA outbreak was curbed with no detection for the last 8 months (December 2023). This study highlights the significance of comprehensive hygiene practices in NICUs for infection prevention.

Mrs Kristina Garne Holm

Title of Presentation

Feeding practice, nutrition, and growth in Infants with abdominal wall defects and esophageal atresia: A retrospective case-control study

Abstract Submission

Introduction Infants born with abdominal wall defects and esophageal atresia (EA) are at risk of impaired growth, but little is known about the optimal nutritional strategy and its impact on infant growth. This study aimed to explore nutrition, focusing on breastfeeding, and the presumed impact on infant growth during the first year of life. **Methods** The participants in this registry study comprised infants born with gastroschisis, omphalocele, or EA born 2009 to 2020. Breastfed healthy infants from the Odense Child Cohort served as the control group. Descriptive statistics were applied when presenting data on nutrition. Growth data were converted to weight z-scores at birth and at discharge, and estimated weight z-scores at 6 and 12 months were calculated. Univariate regression analysis was applied. **Results** The study included 168 infants in the study group and 403 infants in the control group. Exclusive breastfeeding rates at discharge were as follows: 55.7% (gastroschisis), 58.3% (omphalocele), 50.9% (EA), and 7.7% (long-gap EA). For the study group our data demonstrate no difference in growth at 1 year of age when comparing mother's milk to formula feeding. During the first year of life, infants in the study group showed slower growth compared with the control group. At 12 months of age, all infants had a mean weight z-score above -2. **Conclusion** Breastfeeding in infants with abdominal wall defects and EA can be established without compromising growth. Mother's milk can be recommended from birth for infants with abdominal wall defects and EA.

Mrs Kristina Garne Holm

Title of Presentation

Parental experiences of early attachment after neonatal gastrointestinal surgery

Abstract Submission

Background: Undisturbed skin-to-skin after birth is one of the strongest predictors for a close parent-infant attachment. Infants with congenital abdominal anomalies requiring surgery are separated from the parents after birth. Aim: To study parental experiences of the early attachment to their infant after neonatal gastrointestinal surgery. Method: A qualitative approach was applied. A total of seven parents was interviewed after discharge of the infant within 12 weeks after birth. The interviews were audio recorded and verbatim transcribed and subjected to a thematic content analysis. Results: Three main themes were identified: "The vulnerable relationship", "The importance of skin-to-skin and closeness" and "Challenged by the clinical settings". The early attachment was experienced as challenging and resulted in a vulnerable parent-infant attachment. The parents felt that clinicians were focusing on the infant's treatment, but were depended on them to support the parent-infant attachment. Physical closeness and especially skin-to-skin promoted relationship formation, but this was experienced as challenging to provide when the infant needed intensive care. Conclusion: Clinicians seems to be mediators of very essential feelings of security for the parents. However, they also trigger and maintain feelings of insecurity in the parents own ability while unintentionally being restrained in a relation of dependency with clinicians.

Mrs Malene Horskjaer

Title of Presentation

Developing a guideline for early and longer skin-to-skin contact with preterm infants

Abstract Submission

Background and aim: It is well established that skin-to-skin contact is beneficial for preterm infants. The aim was to explore if early and more skin-to-skin contact is more beneficial than later and less in respect to breastfeeding, physical stability, stress hormones, parent-infant bonding/attachment and weight gain. Methods: A systematic literature search was performed resulting in 20 quantitative and 14 qualitative papers including the perspectives of parents and healthcare professionals. Meta analysis performed when possible. Results: It is recommended to initiate skin-to-skin contact within the preterm (GA 28-36 weeks) infant's first day of life with a strong recommendation for increasing the number of infants receiving breastmilk in first day of life, exclusive and any breastfeeding/breastmilk feeding at discharge, and reduce the risk of hyperthermia ↑↑. And a weak recommendation for reducing the infant's stress hormones/response and increasing parent-infant bonding/attachment, also early skin-to skin contact does not increase the risk of hypothermia, hypoglycemia or cardiorespiratory instability ↑. It is recommended that preterm infants (GA 28-36 weeks) get longer durations of skin-to-skin contact each day during hospital stay with a strong recommendation for increasing the number of infants exclusively breastfed/breastmilk fed at discharge↑↑. And a weak recommendation for reducing time to establish exclusive breastfeeding, reducing the infant's stress hormones/response, and to optimize the parents experience of bonding↑. It is not possible to set a minimum dose for these outcomes, but according to WHO preterm infants should have at least eight hours of skin-to-skin contact daily. Conclusion: The guideline will be reviewed in Spring 2024.

Ms Xiaojing Hu

Title of Presentation

Application of PICC in NICU neonates: A single-center 10-year investigation

Abstract Submission

Objective: To investigate the application trend of the PICC over a 10-year period in NICU, with the aim of providing additional clinical evidence for the use of PICC during hospitalization in NICU. Methods: A retrospective analysis was conducted on the infants admitted between 2012 and 2021 who underwent PICC catheterization. Data pertaining to gestational age, birth weight, indwelling time, as well as the occurrence of infection and complications, were collected. The data was collated and statistical analysis was performed using the SPSS 25.0 software. Results: Out of the 1928 enrolled infants who underwent PICC catheterization. Over the past 10 years, the number of PICC catheters has consistently increased, yet the mean gestational week has remained stable at approximately 30 weeks. The majority of cases were due to lower and right limb catheterization, with 1749 (90.72%) lower limb cases and 1477 (76.61%) right limb cases. The duration of catheter indwelling was 19.35 ± 0.27 days. There were 297 cases (15.40%) of catheter-related complications, which included 107 cases (5.55%) of phlebitis, 71 cases (3.68%) of catheter obstruction, and 51 cases (2.65%) of CRBSI. The binary logistic regression analysis revealed that the catheter site (upper extremity/lower extremity) (OR=0.612, 95% CI: 0.414-0.905, P=0.014) and catheter tip position (OR=1.903, 95% CI: 1.200- 3.017, P=0.006) were associated with catheter complications. Conclusion: During neonatal PICC catheterization in the NICU, the preferred approach is to perform lower extremity venous catheterization, which keeps the catheter tip in the vena cava and reduces catheter-related complications.

Dr Mega Hasanul Huda

Title of Presentation

A systematic review and network meta-analysis of non-pharmacological interventions involving parent on pain during invasive procedure among newborns

Abstract Submission

Abstract Background: Diverse parental involvement interventions have been implemented to alleviate infant discomfort. Nevertheless, the relative efficacy of these various non-pharmacological interventions is still unknown. **Aims:** The current study performed a network meta-analysis to investigate the relative effectiveness of non-pharmacological interventions involving parents in alleviating discomfort in neonates. **Methods:** We conducted a comprehensive search of articles from many reputable databases including Pubmed, Science Direct, Cochrane, Embase, Scopus, CINAHL, Sage, and Clinical Key. The search spanned from the establishment of these databases up to August 2023. We consider infants who have completed at least 37 weeks of gestation and have had invasive procedures in the Neonatal Intensive Care Unit (NICU). The intervention was a non-pharmacological approach that involved parents and aimed to address pain as the desired outcome. Non-randomized controlled trial studies were excluded from this review. A frequentist framework was used to conduct a network meta-analysis with random effects. The registration number for PROSPERO was CRD42023449089. **Results:** In total, 35 RCTs with 4,790 participants were included. The three most effective non-pharmacological interventions for reducing pain during invasive procedures in neonates are combination breastfeeding and mother holding, combination white noise and mother holding, and sensorial saturation. These interventions have been shown to have a significant impact on pain reduction, with standardized mean differences ranging from -5.20 to -3.48 (Standardized Mean Difference (SMD): -5.20, 95% Confidence Interval (CI): -7.97 to -2.44; SMD: -4.23, 95% CI: -6.07 to -2.39; SMD: -3.48, 95% CI: -5.28 to -1.68, respectively). **Conclusions:** Non-pharmacological therapies such as breastfeeding and mother holding, the combination of white noise and maternal holding, and sensory saturation are effective in reducing pain in babies undergoing invasive procedures. During the carrying out of these invasive procedures, healthcare professionals may engage parents in the use of such treatments. **Keywords:** newborn, non-pharmacological intervention, invasive procedure, family centered care, network meta-analysis.

Miss Alysia Humphrey

Title of Presentation

Hatching Holistic Help: Cracking up with our Egg-citing Education Strategy

Abstract Submission

This abstract outlines the development of a comprehensive program tailored for neonatal nurses seeking specialisation in the field, aiming to equip nurses with the necessary skills and knowledge to provide optimal care for neonates. The curriculum integrates a combination of theoretical foundations, practical clinical experiences, and advanced technologies, ensuring a well-rounded education. Design emphasises evidence-based practices, critical thinking, and effective communication, fostering a holistic approach to neonatal nursing. To gather essential information for the program's creation, the following questions were proposed: 1. What are the current gaps in neonatal nursing education? 2. What are the key competencies and skills required for effective neonatal nursing and how can these be aligned with the upcoming British Association of Perinatal Medicine Standards? 3. What are the specific challenges faced by neonatal nurses in present healthcare settings? 4. How can the program balance theoretical knowledge with practical clinical experiences? 5. What technologies and innovations are available, and how could they be incorporated into the curriculum? 6. How can the curriculum promote evidence-based practices? 7. What strategies can be implemented to enhance critical thinking skills? 8. How will the program address the importance of interdisciplinary collaboration in neonatal healthcare? 9. What assessment methods will be employed to evaluate the proficiency of nurses graduating from the programme? By addressing these questions, the new program aspires to elevate the standard of neonatal nursing education and hatching our nurses to be holistic helpers on this journey, ultimately improving the quality of care provided to neonates and their families.

Mai-Britt Hägi-Pedersen

Title of Presentation

Knowledge of mothers and fathers' experiences of the early in-home care of premature infants supported by video consultations with a neonatal nurse

Abstract Submission

Aim To gain in-depth knowledge of mothers' and fathers' experiences of the whole trajectory of an early in-home care programme supported by video consultations with a neonatal nurse. **Design** A qualitative interview study. **Methods** Data were collected through dyadic semi-structured interviews with mothers and fathers participating in virtual early in-home care programmes and were subjected to inductive content analysis. **Findings** The mothers and fathers were anxious about mastering the care of their premature infants at the start of the early in-home care phase but gradually developed confidence by the completion of the early in-home care programme. Being at home during the early in-home care programme gave the mothers and fathers an opportunity to test their decision making concerning the care of the infant while having the ability to obtain support from nurses when needed. **Conclusion** Our findings indicate that the trajectory of early in-home care programmes combined with video consultations contributes to parents' increased confidence as mothers and fathers.

Dr AFEEZ IDOWU

Title of Presentation

The impact of low-dose high-frequency mentorship approach in enhancing newborn care in Nigeria

Abstract Submission

Background: NEST360 Nigeria, has employed a low-dose-high-frequency mentorship approach to improve clinical skills and adherence to treatment guidelines. This paper focuses on the impact of this approach on the quality of newborn care. Methodology: Two facilities - X and Y - were included as case studies. Staff representatives working in both X and Y were taken through the National Comprehensive Newborn Care Course (CNCC) which disseminates the national comprehensive newborn care protocols while integrating the use, maintenance and troubleshooting of essential devices. Staff were then taken through a hands-on course which prepared them to appropriately teach and mentor their colleagues using presentations, scenarios, 4 stage approach skills teaching, group discussions and assessments. Using these approaches, the mentors were then tasked to break down the CNCC content into small topics which could be taught frequently at convenient times in their units. Manikins were used to practice concepts before proceeding to live babies. Six-month (June – Nov 2023) data from NEST360 implementation tracker was used to assess effectiveness of interventions. Result/Findings: Small dose topics included use of CPAP and prevention of hypothermia at birth and at admission. Facility X increased CPAP utilization by 50% and prevention of hypothermia at admission by 65% while Facility Y increased by 8% and 19% respectively. Case mix, staff rotation, attrition, industrial strikes and quality of unit leadership remain a challenge and may have played a role in the difference in performance. Conclusions: The low-dose-high-frequency mentorship approach may be useful in enhancing care for small and sick newborns.

Dr. Tami Jakubowski

Title of Presentation

Adult From Heart to Sole: Screening and Early Identification of Congenital Heart Disease

Abstract Submission

Introduction “Adult From Heart to Sole” is a study with adults to explore a potentially non-invasive, low cost screening method for congenital heart disease. This study builds on a prior “From Heart to Sole” study in the pediatric population. **Purpose** This pilot study explores whether identification of a variant finding on physical assessment is a marker for early detection of congenital heart disease in newborns; this finding remains unchanged after birth. **Methods** A short Qualitrix survey was developed and shared via social media platforms (Facebook, LinkedIn, etc) and the Adult Congenital Heart Disease Studies Recruiting Subjects webpage. In addition to demographic data, participants were asked if they have a diagnosis of a congenital heart defect, if yes, what type, and if they had other health issues including a genetic syndrome. **Sample** All study participants were over the age of 18 years, with a total of 32 responses, 66% females and 34% males. The majority of the respondents are Caucasian(87%), followed by Asian(9%) then Black(3%). This study has been approved by the Institutional Review Board at The College of New Jersey and the Medical Advisory Board Research Committee of the Adult Congenital Heart Association. **Results** Preliminary data suggest the presence of the specific assessment finding is present in greater numbers of participants with congenital heart disease. Over fifty percent of the respondents reported a Tetralogy of Fallot diagnosis. The assessment finding was reported as present in 28% of the participants. Data collection is ongoing.

Mr. Kiruja Jason

Title of Presentation

Mapping Neonatal Nursing in Kenya: Profile, Experiences, Locations, and Roles of neonatal nurses.

Abstract Submission

Neonatal Nurses in Kenya: Who they are, where they are and what they are doing

Background: Neonatal nurses are a specialized workforce that is competent and motivated to establish, implement and sustain functional neonatal care at all levels. In Kenya, neonatal nursing specialized training started in 1998 and has graduated approximately 180 nurses since. The survey sought to establish the profile of these nurses and describe their role and experiences in newborn care **Materials & Methods:** A cross sectional descriptive study design using a structured electronic questionnaire was used. 58 of the nurses responded. Descriptive analysis was done on the quantitative data using excel and themes were generated from the qualitative data. **Results:** The specialized neonatal nurse is mostly female (79.3%), aged 31 – 40 years (40%), who had a basic diploma (90%) in general nursing before pursuing specialized training after a median of 7 years of practice. Post specialized training, 43% pursued additional professional training like BScN and 67% are involved in daily level 2 & level 3 newborn care in a public hospital (76%). About half (46%) of the neonatal nurses are in the capital city. More than half of the neonatal nurses have a leadership role and have experiences transforming their units by continuously teaching evidence-based practices and being advocates of improved infrastructure for newborn care. High workload, poor infrastructure and lack of hospital leadership support remain a challenge. **Conclusion:** An increase and an equitable distribution of these highly resourceful neonatal nurses is needed across Kenya

Miss Jacqueline Johnstone

Title of Presentation

Holistic Neonatal Assessment and Care - Tackling the Challenges of skin to skin tone.

Abstract Submission

Patient assessment relies on observational assessment and changes in skin colour. The first observation in assessing the airway, for example, includes looking at the patient. Looking for colour changes (Resus Council Guidelines UK, 2023). However in children with darker skin tones it may be difficult to assess colour changes (Pusey-Reid, 2023). Additionally, medical equipment used to inform the clinical assessment, for example, peripheral oxygen saturations (Spo2) measurements are used to support the identification of early signs of hypoxia which can guide levels of oxygen administered (Myett, 2017), is not necessarily accurate in recording levels and is dependent on skin tone (Feiner et al. 2007 and Fawzy et al. 2022). There is a scarcity of nursing literature, studies, and educational materials on the assessment and early recognition of common skin assessment in patients with dark skin tones (DST). The underrepresentation of people with DST images in didactic material suggests that omissions of these images in educational resources may introduce bias in health care provider education and practice (Shanmugavadivel et al., 2022). Educational content and robust literature around the assessment and early recognition of deteriorating patients with dark skin tones is minimal (Shanmugavadivel et al., 2022; Pusey-Reid et al., 2023). Shanmugavadivel et al. (2022) asserted, following their international study with healthcare professionals, that their identification was inadequate. A detailed systematic review was completed to develop a mixed methods study with pre registration student children's nurses. This will be used to implement additional training within the curriculum to support competence and awareness of assessment and the challenges around darker skin tone assessment.

Mrs Tracey Jones

Title of Presentation

Collaborative Global Working to Enhance Neonatal Education

Abstract Submission

The field of neonatal education has undergone transformative changes with the advent of collaborative global working. This abstract explores the impact and significance of international cooperation in advancing neonatal education, emphasising the mutual benefits derived from shared knowledge, resources, and expertise. The collaborative initiatives fostered as part of the COINN education committee have encouraged dynamic exchange of best practices, cutting-edge research, and culturally sensitive approaches to neonatal care and education. The synergy resulting from this diverse perspective and the shared experiences of the committee has enriched the development of the COINN position statements and wider learning. These abstract highlights key elements of successful collaborative efforts which have facilitated real-time communication and knowledge transfer. Moreover, the global collaboration in neonatal education has played a pivotal role in addressing regional disparities highlighting areas for focus. Collaborative global working stands as a beacon for innovation, unity, and the shared commitment to ensuring the optimal development and well-being of neonates on a global scale.

dr Rakel B. Jonsdottir

Title of Presentation

Breastfeeding of preterm infants after early discharge

Abstract Submission

Studies on early discharges of preterm infants regarding breastfeeding are few. The support of nurses with experience and knowledge of breastfeeding premature infants has proven to be particularly important at the beginning and in the progress of breastfeeding. It is therefore important to examine whether the fact that preterm infants are being discharged home from the NICU at a younger age and thus potentially have less access to this specialized support, has a negative effect on breastfeeding. Studies conducted in the early years of early discharge-programs did not indicate a negative effect on breastfeeding. More recent studies indicate a positive effect on breastfeeding by discharging premature babies home earlier with the support of specialized nurses, further studies are needed. About 150 preterm infants are admitted to the NICU at the University Hospital in Reykjavik each year. About 70-75% are discharged home with feeding tube and followed-up by structured nurse-managed outpatient clinic for preterm infants. At COINN 24 we will present breastfeeding rates at discharge for preterm infants in 2023 and describe the content of the nurse-managed clinic.

Susanne Soendergaard Kappel

Title of Presentation

Time-intervals between pumping did not affect protein content in breastmilk from mothers of preterm infants

Abstract Submission

Background: Mothers' own milk is the best nutrition for preterm infants though it is recommended to supplement (fortify) this to ensure sufficient nutrition in very preterm infants. Different strategies are used to determine the amount of fortification. However, there are only a few studies investigating factors that might influence the content of protein and fat in breastmilk of mothers expressing milk. The aim of this study was to investigate the influence of the intervals between breastmilk pumping and the time of the day on protein and fat concentration in breastmilk. Methods: Ten healthy mothers of very preterm infants who expressed more than 400 mL per day were included. Expressed breastmilk was obtained from each mother over 30 hours who were pumping at strictly planned and varying intervals: 2, 3, 4, and 6 hours. All samples were analysed using infrared transmission spectroscopy. Results: The 10 mothers participated at a median of 22 days postpartum. A total of 176 milk samples were analyzed, and the average protein and fat concentrations in gram/100 ml were 1.1 (SD=0.23) and 4.2 (SD=1.3), respectively. The time-intervals between breast pumping sessions did not impact protein content, but fat content decreased by longer intervals ($p < 0.01$). The time of the day for milk pumping did not influence the protein or fat content. Conclusion: The protein content in expressed breastmilk was not influenced by the time-intervals between breast pumping nor the time during the day, whereas the fat content decreased with longer intervals.

Susanne Soendergaard Kappel

Title of Presentation

Nurses' and physicians' rationale behind clinical performance and interpretation of routine prefeed gastric aspiration in preterm infants. A cross-sectional study.

Abstract Submission

Background: The evidence for routine prefeed aspiration on feeding tubes has lately been questioned. Nevertheless, evaluation of gastric residual (GR) prior to each bolus feeding is common practice in many Neonatal Intensive Care Units (NICUs) to ensure that enteral feeding is well tolerated and to detect early signs of necrotizing enterocolitis (NEC). The aim of this study was to understand the rationale behind performing prefeed gastric aspirations in preterm infants, how nurses and physicians interpret the gastric aspiration and variations between them, to illuminate potential barriers for omitting routine prefeed aspiration.

Method: Nurses and physicians from all Danish NICUs completed a questionnaire. **Results:** Of 682 participants, the majority (94%) indicated that they routinely performed prefeed aspiration, primary to check the feeding tube-placement (nurses: 88%, physicians: 46%) Nurses feared NEC when observing a large (GR) volume (31%) and green-stained GR (63%). Fewer nurses relative to physicians had "no worries" related to large volumes (15% vs. 34%) or green stained GR (14% vs. 24%, both $p < 0.01$). More nurses than physicians intended to pause enteral feeding when observing green stained GR (31 vs. 16%, $p < 0.01$) and more nurses were concerned about completely omitting performing routine gastric aspirations (90 vs. 46%, $p < 0.05$). **Conclusion:** The rationale behind the clinical use of GR volume and color as markers of NEC and feeding intolerance differs markedly between nurses and physicians in Denmark. If routine prefeed gastric aspiration should be omitted, special focus on information about early signs of NEC and methods to check tube-placement, is needed.

Ms Elizabeth Kariuki

Title of Presentation

Support for nurses

Abstract Submission

Knowing that nurses are the backbone of the healthcare team, thus, bridging the gap in support closeness and building relationships by supporting nurses will be like winning a jackpot for the care of neonates. Every neonatal nurse dreams that the required resources will be within their reach. Adequate staffing among nursing departments has turned out to sound more like a fairy tale because it only happens in theory. Educating nurses through providing scholarships and sponsoring them is as important as it is to doctors. Many facilities put more effort into the doctors and forget that the nurses equally need to be enlightened. This will be a big morale to them especially those who cherish nursing the neonates. The knowledge will enable them to defend the neonates better as their primary advocates. Education comes along with exposure to instruments and machines hence making work easier. A salary increase will be a great booster to improving quality care. Nurses will endure long working hours as locums. Notably, good rest will result in better outcomes. The availability of resources will automatically result in an improvement in the quality of care for the neonates. This will lead to job satisfaction. A clean conscious has good judgment and a psyched-up team for the work resulting in teamwork which will lead to ample time for caring for the neonates. Notably, when there is job satisfaction, good outcomes are inevitable. This therefore will be seen through short hospital stays and reduced neonatal mortalities.

Ms Elizabeth Kariuki

Title of Presentation

Care Challenge

Abstract Submission

Owing to the fact a good outcome demands for teamwork then to support closeness building relations is the way to go as a family of neonatal nurses. Furthermore, this gears towards attaining the SDG 3.2: end preventable deaths of newborns and children under 5 years old with all countries aiming to reduce neonatal mortality to 12 per 1000 births (WHO, 2015). Notably, in order to achieve this, there is a call to face care challenges that are standing between us and SDG 3.2. The mother to all challenges is scarce resources. It is important to note that, neonatal nurses are key human resource. There is a severe shortage of nurses globally and this makes it worse for the neonatal nursing fraternity because it is quite a new field or specialty. Notably, the “few nurses” we are having have not embraced it whole heartedly which has resulted in increased workload for the few courageous teams whom have resolved a specialty with nursing the neonates. A big percentage of the nurses handling neonates include nurses with general nursing skills who are not trained neonatal nurses. Consequently, this has compromised the quality of care given to the neonates. Lack of education has compromised care, regarding to understanding disease, expected intervention, and proper utilization of equipment. Financial resource is a pillar whereby inadequate finances lead to low wages, shortage in staffing, unequipped hospitals, lack of training opportunities or scholarships for nursing staff. Consequently, nurses are forced to take shortcuts in neonatal care.

Knarik Kirakosyan

Title of Presentation

Supporting Closeness and Building Relationships in the NICU post COVID-19

Abstract Submission

Background: Secure attachment in infancy shapes the infant's cognitive, social and emotional development, providing a foundation for forming healthy relationships. The heightened infection control measures and strain on resources during COVID-19 significantly altered the landscape of care provided in the Neonatal Intensive Care Unit (NICU) affecting collaborative interactions with families, which are crucial for fostering the parent-infant bond. As the world emerged from the pandemic, the need for targeted interventions and support systems became imperative. Aim: To provide an insightful overview of the current practice in the NICU at Royal Prince Alfred (RPA) hospital, share successful strategies to enhance the dynamics of closeness and relationships within the unit. The presentation addresses challenges and proposes future directions for advancing individualised care and fostering relations in the NICU. Method: Observing and analysing current practice to identify prevailing care practices within the NICU at RPA, compared to those prior to COVID-19. The impact of the current practice on patient satisfaction and overall experience was also assessed based on patient feedback. Results: The overview of the current practice indicates the growing emphasis on family-centred care, incorporating strategies to optimise physical, sensory and emotional environments for infants in the NICU with extensive input from parents. Challenges include resource limitations, staff training and maintaining consistency in care practices. Conclusion: By publicising experiential knowledge and highlighting current practices and challenges, this presentation aims to promote best practices and strategies to rebuild and strengthen the vital bond between parents and their newborns in the NICU post COVID-19.

Rebecca Kirby

Title of Presentation

Improved screening of retinopathy of prematurity (ROP): development of a target product profile (TPP) for resource-limited settings

Abstract Submission

Background: As more preterm infants survive, complications of preterm birth, including retinopathy of prematurity (ROP), become more prevalent. ROP rates and blindness from ROP are higher in low-income and middle-income countries, where exposure to risk factors can be higher and where detection and treatment of ROP are under-resourced or non-existent. Access to low-cost imaging devices would improve remote screening capabilities for ROP. Methods: Target product profiles (TPPs) are developed early in the medical device development process to define the setting, target user and range of product requirements. A Delphi-like process, consisting of an online survey and consensus meeting, was used to develop a TPP for an ROP imaging device, collecting feedback on a proposed set of 64 product requirements. Results: Thirty-six stakeholders from 17 countries provided feedback: clinicians (72%), product developers (14%), technicians (6%) and other (8%). Thirty-six per cent reported not currently screening for ROP, with cited barriers including cost (44%), no training (17%) and poor image quality (16%). Among those screening (n=23), 48% use more than one device, with the most common being an indirect ophthalmoscope (87%), followed by RetCam (26%) and smartphone with image capture (26%). Consensus was reached on 53 (83%) product requirements. The 11 remaining were discussed at the consensus meeting, and all but two achieved consensus. Conclusions: This TPP process was novel in that it successfully brought together diverse stakeholders to reach consensus on the product requirements for an ROP imaging devices. The resulting TPP provides a framework from which innovators can develop prototypes.

Mrs. Rebecca Kirby

Title of Presentation

Target product profiles for neonatal care devices: systematic development and outcomes with NEST360 and UNICEF

Abstract Submission

Medical devices are critical to providing high-quality, hospital-based newborn care, yet many of these devices are unavailable in low- and middle-income countries (LMIC) and are not designed to be suitable for these settings. Target Product Profiles (TPPs) are often utilised at an early stage in the medical device development process to enable user-defined performance characteristics for a given setting. TPPs can also be applied to assess the profile and match of existing devices for a given context. We developed initial TPPs for 15 newborn product categories for LMIC settings. A Delphi-like process was used to develop the TPPs. Respondents completed an online survey where they scored their level of agreement with each of the proposed performance characteristics for each of the 15 devices. Characteristics with < 75% agreement between respondents were discussed and voted on using Mentimeter™ at an in-person consensus meeting. The TPP online survey was sent to 180 people, of which 103 responded (57%). The majority of respondents were implementers/clinicians (51%, 53/103), with 50% (52/103) from LMIC. UNICEF published the 15 TPPs in April 2020, accompanied by a report detailing the online survey results and consensus meeting discussion, which has been viewed 7,039 times (as of January 2023). These 15 TPPs can inform developers and enable implementers to select neonatal care products for LMIC. Over 2,400 medical devices and diagnostics meeting these TPPs have been installed in 65 hospitals in Nigeria, Tanzania, Kenya, and Malawi through the NEST360 Alliance.

Hendrik Koning

Title of Presentation

The COMFORT-neo scale; does the scale measure pain in extremely preterm-born infants?

Abstract Submission

The COMFORT-neo scale; does the scale measure pain in extremely preterm-born infants?

H. Koning, RN Introduction Measuring pain in infants is done using the COMFORT-neo scale. The aim of this study is to determine validity in extremely preterm infants. Methods We included 1022 preterm infants admitted to our Neonatal Intensive Care Unit (106 being extremely preterm, gestational age <28 weeks), between 01-01-2018 and 31-12-2022. Using item response theory, we determined 1) validity of the COMFORT-neo scale for preterm, particularly extremely preterm infants, 2) whether pain was measured, 3) whether the score was valid for ventilated and non-ventilated infants. Results For ventilated infants, the COMFORT-neo item scale Respiratory Response had a narrow range and category thresholds overlapped with Agitation and Facial Tension. For non-ventilated infants, the COMFORT-neo score adequately covered the latent construct of pain. Uniform and non-uniform differential item functioning was present between the patterns of extremely preterm and other preterm infants. Ventilated extremely preterm-born infants had higher risks for positive scores on Agitation and Facial Tension (factor 1.09 and 1.79, respectively, although $p > 0.05$). Non-ventilated, extremely preterm infants had a lower risk of scoring positive on Agitation (factor 0.5, $P < 0.05$). Conclusion Several COMFORT-Neo scale items, particularly agitation and facial tension, do not contribute to measuring the latent construct of pain. For extremely preterm infants, the latent construct is not well measured at all. The COMFORT-Neo scale therefore warrants further development for this group.

Dr. Miki Konishi

Title of Presentation

The new role designed by the Revised Program for the Certified Nurse Qualifications in Neonatal Intensive Care in Japan.

Abstract Submission

A certified nurse (CN) is a qualification established by the Japanese Nursing Association in 1995. The certified nurses in NICU (CN-NIC) program began in 2003. Nearly 450 CNs-NIC exist throughout Japan. Dokkyo Medical University (DMU) re-launched the newly revised educational program for CN-NIC in April 2023. This new neonatal program includes specialized training for advanced content called “Tokutei Koui,” launched in 2015 and approved by the Japanese health authority. The Japanese Law governing nursing practice defines thirty-eight interventions (some would be defined as nursing interventions outside Japan) as specified medical interventions that require clinical judgment, advanced and specialized knowledge, and skills; therefore, nurses need to receive additional training. Enrollees in the CN-NIC program must learn how to change a tracheostomy tube, manage fluids for patients with dehydration symptoms, and adjust the dose of total parental nutrition. Students take computer-based lectures, experience skill-lab training at DMU, and perform additional practicum training at their own facility. During the practical training, neonatologists, pediatric surgeons, and otolaryngologists serve as instructors, and students submit case reports on five. This unique combination of the specified medical intervention training and certified nursing scope of practice may develop CN-NIC to take on new advanced roles not only in NICUs but in a wide range of settings in the communities, outpatient clinics, developmental clinics, and more. The newly revised CN-NIC course and its impact on student outcomes warrant continued research.

Dr Miki Konishi

Title of Presentation

Unexpected impact of the COINN book, Neonatal Nursing: Global Perspective connecting Japanese readers with global colleagues' challenges and opportunities.

Abstract Submission

The global neonatal nursing community contributed to an inaugural publication, Neonatal Nursing: A Global Perspective, which describes neonatal nursing, its impact and contributions from all the World Health Organization (WHO) regions. A dedicated Japanese team contributed to a chapter presenting the Japanese perinatal/neonatal nursing, education and care systems. Following the publication, the International Committee of the Japan Academy of Neonatal Nurses (JANN) launched a Book Club and invited JANN members to read the book and to discuss the content over a year on zoom meetings. What started with 16 members at the beginning of 2023 gradually grew to a group of near 30 members from across Japan and we met monthly for 12 times. This was the very first in JANN's history to conduct any book club initiative, let alone a non-Japanese book. The committee conducted a Survey to assess the impact of this initiative on the participants. Seventeen nurses responded to the survey. All respondents expressed that participating in the book club offered a valuable experience. More than half of the respondents were initially uncomfortable with English materials, however, the negative perceptions decreased after the conclusion of this effort with only 12 % expressing discomfort toward reading English chapters. Participants learned a wide variety of practice, care and educational systems and more related to neonatal nursing, and how all the elements intersect with each region's unique setting or the values. The book club enhanced Japanese neonatal nurses' sense of connections with global neonatal communities worldwide.

Mr Mohamed James Koroma

Title of Presentation

PREVALENCE AND OUTCOME OF PRETERM ADMISSIONS AT THE SPECIAL CARE BABY UNIT IN OLA DURING CHILDRENS HOSPITAL IN FREETOWN

Abstract Submission

Background: Prematurity is a global epidemic and a leading cause of neonatal mortality in Sub-Saharan Africa like Sierra Leone. We evaluated the prevalence and treatment outcome of preterm admissions. Preterm infants are at higher risk for conditions like Sudden Unexpected Infant Death, child mental disorders, and recurrent hospitalization. The objectives were to determine the prevalence of preterm admissions among the population studied, to document the outcome and common medical conditions associated with prematurity and to assess for any significant relationship between treatment outcome and socio-demographic variables preterm and medical conditions Methods: A cross-sectional prospective study was conducted among 295 preterms admitted to Special Care Baby Unit (SCBU) of Ola During Children's Hospital in Freetown. Data collection was done using a structured questionnaire obtaining information by direct interview and with use of patient records after obtaining informed consent. Data collected was analyzed using the statistical package for social sciences Version 26.0. Categorical variables were analyzed and expressed as frequencies and proportions. Results: More than half (55.9%) were males and 44.1% were females. The prevalence of preterm admissions was 9.3%. Majority of preterms admitted (70.5%) were successfully discharge home with 28.8% deaths and 7.1% went home against medical advice. The top five morbidities in hospitalized preterm infants were Respiratory Distress Syndrome, 78.3%, perinatal asphyxia 44.1%, Small for gestational age, 66%, sepsis, 65%, and Neonatal Jaundice 46% Conclusion: The burden and mortality from preterm newborns admission remain significant public health challenges to care givers in Sierra Leone.

Mrs. Mercy Kulanga

Title of Presentation

Maternal and neonatal predictors of early breastfeeding initiation in preterm neonates amongst postnatal mothers in selected health facilities in Mangochi District, Malawi.

Abstract Submission

Abstract Background Early human milk /breastfeeding initiation (EBI) is giving breastfeed to a neonate within the first hour of birth. This practice is a low cost high impact intervention that reduces neonatal / infant deaths. The purpose of this study is to determine the maternal and neonatal predictors of early breastfeeding initiation to preterm neonates in selected health facilities in Mangochi, Malawi. **Methods** A cross sectional quantitative study was carried out amongst mothers with preterm neonates using a WHO questionnaire for infant and young child feeding indicators study tool (WHO,2008) . Three level multistage sampling technique was used. The study was conducted in five zones the district. The facilities and participants were selected using Simple Random Sampling Technique. The total number of maternal and neonatal participants was 176. Data was collected for six months and analyzed using Stata version 14.2 **Results** One hundred and seventy-six postnatal mothers with preterm babies participated in this study. The prevalence of EBI in preterm neonates was 37.5% (n=66). Maternal predictors: delivering through cesarian section (OR=2.56, 95% CI:1.11-5.91, P = 0.020); health care worker support to mothers on EBI (AOR=2.59, 95% CI:1.16-5.76, P = 0.020); and mothers' complication at birth (AOR=0.11, 95% CI:0.42-0.30, P = 0.000) were significantly associated with EBI. Neonates condition at birth (AOR=0.05, 95% CI:0.01-0.19, P = 0.000) was the only significant neonatal predictor. **Conclusion** Health education, counselling and awareness-raising activities on EBI should be emphasized in the perinatal period. **Key words:** Early human milk / breastfeeding initiation, predictors, preterm neonates .

Mona Labide

Title of Presentation

Transitional Newborn Care

Abstract Submission

Abstract Transitional care of the newborn in Labor and Delivery, where everything outside the womb starts, has significant effects on the total wellbeing of both mom and baby. In looking at implementing a practice change where transitional care occurs at bedside with the mom in L&D, several challenges were encountered: nursing skillset was inadequate for this level of care, resistance to change and staffing challenges. The L&D Newborn Nurses with the NICU Nurses were merged and developed a process to provide transitional care at the bedside in L&D for the first 2 hours of life. A task force was established with representation from both groups, collaborated with physicians from NICU, Pediatrics and Family Medicine. The Newborn Nurses were oriented to NICU which provided them knowledge and exposure to higher levels of newborn care. The NICU nurses were trained to newborn care provided in L&D. All nurses were rotated between both departments which maintains the various skillsets. This multidisciplinary group developed infant inclusion criteria for transitional care in Labor and Delivery: • 35 weeks and above • Rule out sepsis • Hypoglycemia concern • Respiratory Care Transitional newborn care in Labor and Delivery was successful, allowing the mother and babies to remain together for the first 2 hours of life. This is the most crucial time for bonding, successful breastfeeding and the stabilization of both the mother and baby. Outcomes revealed a 50% decrease in newborn antibiotic administration and a decrease in transfers from post-partum to NICU by 0.7% in the first 12 months.

Mr Charles Lambert

Title of Presentation

Exploring He Korowai Manaaki: the results of an Iwi and research partnership to improve neonatal outcomes

Abstract Submission

Clinical pathways for evidence-based care in Aotearoa New Zealand are not delivered systemically and equitably for all. The marked disparities between Māori (the Indigenous peoples of Aotearoa New Zealand) and New Zealand Europeans in relation to maternal, neonatal, and infant outcomes, and the considerable potential long-term effects experienced more by whānau Māori (extended Māori families) inform this augmented maternal care pathway - He Korowai Manaaki. Since 2015, Ngāti Pāhauwera Development Trust and Te Tātai Hauora o Hine (The National Centre for Womens' Health Research Aotearoa) have been working together to respond to the community's voiced concerned about a range of issues affecting pregnant māmā, their pēpi (babies) and whānau. At the invitation of the Iwi (tribal group), He Korowai Manaaki ('a protective cloak') was designed to surround pregnant woman and their children with the best evidence-informed, timely care and support. Established to improve health and well-being through pregnancy and baby's first 2 years of life and beyond, He Korowai Manaaki grew from a response to the Iwi and their community's expressed needs and aims to reduce disparities in neonatal and maternal health. Underway between 2018 and 2020, the primary outcome for the study was increased timely infant vaccinations, with multiple secondary pregnancy care and birth-related outcomes – all likely of equal importance in tackling the complex areas of health and socio-economic determinants of health and wellbeing. This presentation will describe the Iwi-research partnership, the He Korowai Manaaki manaaki, and results of the study including wider impact on access to maternity ultrasounds and oral healthcare.

Dr Josephine Langton

Title of Presentation

Using interprofessional education to build dynamic teams to help drive collaborative, coordinated and effective newborn care

Abstract Submission

As countries strive to achieve sustainable development goal 3.2, high-quality medical education is crucial to establish a skilled team capable of delivering high-quality neonatal care. Traditionally, the team is doctors and nurses, but they belong to a group of interdependent disciplines. Each discipline trains separately, yet the goal of good neonatal care is common to all. Interprofessional education improves collaborative practice and clinical care, but introduction of new educational materials/training requires rigour to ensure sustainability. NEST360, an international alliance united to reduce newborn deaths, undertook a needs assessment (Malawi, Nigeria, Tanzania, Kenya) identifying gaps in neonatal training on medical devices. Stakeholders came together to develop/revise neonatal curricula/trainings/guidelines. An education team were tasked to develop evidence-based materials on pertinent devices, which underwent internal and external review. Skills labs were established. A biomedical engineers/technicians provider course was introduced. A generic instructors course (GIC) was also developed. Modules, scenarios, job-aids and videos have been published. Materials were embedded into neonatal curricula/national trainings. Forty-one skills labs were installed and used by 7281 students (to June 2022). Pre-/in-service interprofessional training was implemented. GIC courses were conducted with 317 staff (nurses, biomedical, clinical): participants report it has positively influenced teaching practice. Inclusion of stakeholders throughout ensured training was embedded within the countries. Use of interprofessional education and inclusion of biomedical engineers/technicians has been very successful. Introduction of the GIC has developed a pool of high-quality educators for neonatal care. The approach has ensured high-quality interprofessional neonatal training is included within national agendas for neonatal care.

Mrs Genevieve Laporte

Title of Presentation

Development and validation of a NICU-specific family resilience scale among French-Canadian families

Abstract Submission

Family resilience in the neonatal intensive care unit (NICU) shows promise as an avenue for promoting parental mental health. A tool to assess NICU family resilience is essential to guide care and research, yet none specifically adapted for the NICU exists to date. The aim of this study was to develop and validate a new scale, the COCINL scale, designed to measure family resilience in the context of neonatal care among French-speaking parents of preterm infants. This methodological study was conducted from 2021 to 2023 in two urban level-III NICUs in Quebec, Canada. Following the creation of an item pool and subsequent mixed-method evaluation of content validity, the COCINL scale was electronically administered to a convenience sample of parents of preterm infants (n=88), along with measures of psychological distress and of self-report perception of family resilience. Psychometric testing included internal consistency, construct validity and exploratory sensitivity and specificity of the COCINL scale. A scale of 42 items divided into four subscales was devised. High internal consistency was calculated with Cronbach's alphas for each subscale (0.796 to 0.908) and for the total scale (0.937). The instrument displays adequate construct validity, with strong correlations between each subscale (0.732 to 0.851) and when correlated with psychological distress scores ($r=-0.236$, $p=0.027$). Exploratory sensitivity and specificity analysis revealed the COCINL scale is comparable to participants' self-reported perception of family resilience (AUC 0.754). The COCINL scale has adequate psychometric properties. Thus, it can be recommended for research use as an appropriate measure of NICU family resilience.

Joan Neergaard Larsen

Title of Presentation

Zero-separation in intensive care - Neonatal and obstetric healthcare professionals' expectations, concerns, and educational needs related to mother-newborn: A qualitative study

Abstract Submission

Background: Previous studies have demonstrated the beneficial effects of zero-separation for newborns, mothers, and partners. However, many of these studies have focused on less intensive settings, necessitating the need for insights into successful implementation in intensive settings. In preparation for implementing a zero-separation intervention in family rooms for keeping sick newborns, mothers, and partners together, we aimed to include and assess the expectations, concerns, and educational needs of healthcare professionals (HCPs). Additionally, we aimed to strengthen collaboration between the neonatal and obstetric departments as part of an implementation process. This study is part of the prospective implementation process and is based on curriculum development principles and implementation theory. Methods: Four focus group interviews were conducted in June 2023 with neonatologists, obstetricians, midwives, and nurses (n=21) from the Department of Neonatology and the Department of Obstetrics at Copenhagen University Hospital - Rigshospitalet. The data were analyzed using reflexive thematic analysis. Preliminary Results: Five preliminary themes related to HCPs expectations, concerns, and educational needs emerged. The overarching theme was Building bridges and the underlying themes were (1) A desire for increased collaborative teamwork (2) Comfort zone inside/outside (3) A notion of the other and (4) Educational needs. Further four preliminary sub-themes were identified. Conclusion: HCPs support zero-separation in family rooms and emphasize the importance of fostering closer teamwork among neonatal and obstetric departments. Their primary concerns encompass patient safety, the quality of treatment and care, as well as matters related to social security and professional boundaries for HCPs.

Dr Valerie Lebel

Title of Presentation

Transition of premature infants from the neonatal unit to Home: Parents' educational needs to promote their psychological well-Being and sleep quality

Abstract Submission

Premature birth has consequences for families, such as psychological distress and altered sleep for parents during NICU hospitalization and 12 months or more after discharge. Better informing parents about their psychological well-being and sleep is essential to improve their quality of life and promote their infant's development. Unfortunately, there is a lack of knowledge about parental informational needs after discharge. This study aimed to describe the educational needs of parents about their psychological well-being and sleep quality following NICU discharge. For this descriptive quantitative study, a convenience sample was composed of 87 parents of an infant discharged in the last 6 months. Recruitment was conducted on Facebook. Parents completed a socio-demographic questionnaire and an online survey. The survey was developed by the research team based on previous studies. A majority (60.9%) of parents reported being stressed when preparing for discharge. The most helpful information provided by healthcare professionals to reduce parental stress relates to the infant's follow-up after hospitalization, access to a healthcare professional for questions, and how to care for their preterm infant. According to 54.8% of respondents, none of the information they received from healthcare professionals helped improve their sleep. Most participants (57.2%) reported they had questions about their infant's sleep after discharge, such as whether it was necessary to wake them up at night to feed, and if the noises (i.e., grunting) they made were normal. Healthcare professionals must address these informational needs to improve parents' psychological well-being and sleep quality following NICU discharge.

Dr Valerie Lebel

Title of Presentation

The postnatal experience of parents of a premature infant regarding their sleep, their infant's sleep, psychological well-being, and family functioning.

Abstract Submission

Families of premature infants face multiple challenges, particularly after hospitalization. These include altered sleep and its effects on parental well-being and family functioning. There is a lack of knowledge about the sleep characteristics of family members of preterm infants after discharge from the NICU. This study aims to describe the postnatal experience of parents of premature infants regarding their perception of their own and their newborn's sleep, individual psychological well-being, and family functioning. **Methods:** This qualitative descriptive study included 60 parents (30 mothers and 30 fathers) whose infant was discharged from the NICU during the last month. Participants completed a socio-demographic questionnaire and participated in an individual interview. An inductive thematic analysis was conducted. **Results:** Three main themes and six sub-themes central to the parents' discourse emerged. Overall, parents mentioned that their sleep was altered during their newborn's integration into the family environment. This was associated with several factors, such as anxiety about the baby's health or prematurity. Parents also spoke of their psychological state being altered when their newborn arrived in the family environment, resulting in contradictory emotions, both pleasant (e.g. joy, relief) and unpleasant (e.g. worries, guilt). In addition, the parents mentioned significant changes in family functioning (ex: increased tensions, less self-care time). Finally, parents' perceptions about sleep, psychological well-being, and family functioning are intrinsically linked and inter-influential. **Conclusion:** In sum, parents' experience of their infant's transition from the NICU to home is unique and marked by particularities relating to their sleep, psychological well-being, and family functioning.

Mrs Patricia Louise Lowe

Title of Presentation

Safe Passage: A Tripartite Progressive Agency Theory

Abstract Submission

Introduction: A mixed method Constructivist grounded theory study was undertaken to explain Australian neonatal nurses' professional quality of life. **Methods:** This research was guided by Pragmatism, a mixed method grounded theory methodology, and a sequential, explanatory design. The study had three distinct but interrelated components: 1) a literature review, 2) a descriptive, cross-sectional survey, and 3) focus groups and interviews. **Results:** Human and material resource limitations significantly contribute to burnout within the Australian neonatal nursing workforce. Concerns relating to workload, inter-role conflict, moral distress, social support, skill mix, and staffing can be countered by collegiality, empathy, attributes, self-determination, education, and experience. Ensuring nurses, babies, and parents safe passage through neonatal care environments and optimising health outcomes requires personal and professional agency. **Discussion:** A Tripartite Progressive Agency Theory specifying the alterations in consciousness, voice, and action required to enable knowledge, skill, and acculturation flow between nurses and parents to overcome constraints and optimise personal and collective healthcare and wellness goals, was developed. This middle-range theory was located within the nursing meta-paradigm. Grand nursing and social theories relating to agency, adaptation, and transition informed nursing research and practice points regarding the evidence-based ways to embody nurses with an increased sense of personal and professional agency and methods to optimise resource allocation by assigning a monetary value to neonatal health outcomes. **Keywords:** Mixed method; grounded theory; neonatal; nurse; professional quality of life; agency.

Junying Lyu

Title of Presentation

Application study of white noise combined with non nutritive suction in neonatal PICC catheterization

Abstract Submission

Objective: To explore the application of white noise combined with non nutritive suction in the placement of central venous catheters (PICC) in newborns. **Method:** A retrospective analysis was conducted on the medical records of 108 newborns admitted to the NICU of our hospital from June 2021 to June 2023. According to different intervention plans, they were divided into a control group and an observation group, with 54 cases in each group. The control group received routine comfort and non nutritional sucking intervention, while the observation group received additional white noise intervention on the basis of the control group. Evaluate the pain levels, vital signs, catheterization status, and complications of two groups of newborns. **Result:** In the preparation stage, the pain scores of the two groups of children were comparable. During puncture, during catheterization, after catheterization, and 5 minutes after catheterization, the pain levels were all improved compared to the preparation stage, and the score of the control group was significantly higher than that of the observation group, with statistical significance ($P < 0.05$); In the preparation stage, the blood oxygen saturation and heart rate of both groups of children were at normal levels. During puncture and catheterization, the blood oxygen saturation showed a decreasing trend, while the control group was lower than the observation group and the heart rate showed an increasing trend. The control group was higher than the observation group. After catheterization and 5 minutes later, the two indicators gradually approached normal levels, and the observation group was better than the control group, with statistical significance ($P < 0.05$); The hospitalization and catheterization time of the observation group were lower than those of the control group (hospitalization time: 9.88 ± 1.02 vs 13.45 ± 2.11 ; catheterization time: 18.65 ± 2.32 vs 31.24 ± 3.25 minutes), and the one-time catheterization rate was higher than that of the control group (90.74% vs 74.07%), with statistical significance ($P < 0.05$); The incidence of complications during hospitalization in the observation group and the control group were 3.70% and 16.67%, respectively. The observation group was significantly lower than the control group, with statistical significance ($P < 0.05$). **Conclusion:** White noise combined with non nutritive sucking can effectively alleviate the pain level during neonatal PICC catheterization, stabilize vital signs, improve catheterization efficiency and success rate, reduce complication rate, shorten hospitalization time, and have significant effects.

MR MUSTAPHA MAHAMA

Title of Presentation

Improving Neonatal Outcomes through Innovative Practice: The role of the Specialist Neonatal Nurse

Abstract Submission

In Ghana, facility-based neonatal deaths is a great concern and has consistently increased from 3.8 per 1,000 live births in 2014 to 8.4 per 1,000 live births in 2017. Similarly, in the neonatal unit of the Tamale Teaching hospital, the percentage of newborn deaths increased from 11.9% in 2016 to 16.1% in 2020. The emphasis therefore has been to improve facility readiness and quality of care for these vulnerable newborns. Five specialist neonatal nurses trained from the Ghana College of Nurses and Midwives were posted to the neonatal intensive care unit between 2019 and 2020 to improve the quality of newborn care in the Tamale Teaching Hospital. As a team key interventions grouped into 7 major themes were implemented during the period including; Improving infection prevention and control practices, refining breastfeeding practices, advancing kangaroo care practices, improving triaging of in/out-patients, impacting direct patient care, enhancing capacity building of staff, and increased resource mobilization. The results of these innovations implemented remarkably contributed to improved staff satisfaction, improved client satisfaction, and improved quality of care in the unit. The neonatal mortality rate declined consecutively from 16.1% to 12.4% in 2022, highlighting the impact of advancing neonatal nursing training especially in Low-middle-income countries. We therefore recommend a scale-up and standardization of neonatal nursing education and training especially in areas where neonatal mortalities are high to enable the attainment of the sustainable development goal 3. Key words: Neonatal intensive care, innovative practice, Neonatal mortality, Quality care

MR MUSTAPHA MAHAMA

Title of Presentation

Understanding umbilical cord practices in home births and missed opportunities in integrating facility-based care during the Covid-19 Pandemic: a qualitative inquiry in northern Ghana

Abstract Submission

The uptake, implementation, and adherence of key strategic newborn umbilical cord care recommendations has several challenges particularly in settings where home births are common. These barriers are systemic in nature with missed opportunities for adopting integrated approaches to safe newborn health care delivery. This study aimed to explore the umbilical cord practices in home births and missed opportunities for integrated facility-based care during the Covid-19 pandemic in northern Ghana. An exploratory descriptive qualitative design was used to explore the experiences of 18 mothers who were sampled purposively and interviewed face-to-face and through focus group discussions using semi-structured guides. Data were audio-recorded and content analysed. Three main themes and eight subthemes emerged. The study findings establish that home caregivers' persistent practice of umbilical cord care are reinforced by cultural beliefs and practices, involvement of friends and close family relations, knowledge gaps, and perceived benefits of traditional practices. The study also revealed opportunities to improve safe and hygienic umbilical cord care practices according to global and national guidelines. The study recommends an integrated approach to newborn care using collaborative measures between healthcare professionals and home caregivers including mothers, mothers-in-law, and grandmothers to improve umbilical cord care outcomes. **KEY WORDS:** Umbilical Cord Care, Home Births, Integrated health Care, Home caregiver, Northern Ghana

MRS JOELLA MUKASHYAKA

Title of Presentation

Exclusive breastfeeding support of working mothers at workplace: Lactation model room in Rwanda. By MUKASHYAKA Joella, RN, RM, BSCM, MSN(Neo) Telephone:(+250)788489231

Abstract Submission

Proposal project 1. Background Rwanda is African country situated in eastern region with 13,246,394 of people of 19 age old in average of the whole country. Women are presenting 51% of the country among of them 88% of women are working in public sector, private and/or informal sector, others are studying and working [1-2]. The maternity leaves in public sector last three months, public use 6weeks and some activities are resumed sooner after birth as well as the studies. Here the babies are starting formula or cows 'milk according to their economic situation before six months as it is indicated by WHO [2-3]. All those supplement feeding shows many challenges to the family as cause of morbidity related to the feeding tolerance, frequent different infections, anemia, problems related to the metabolic programming which lead to the malnutrition [5]. The Rwanda Demographic Health Surveil 2019-2020 shows malnutrition in Rwanda is on 33% from 38%in 2015 and 51% in 2005 [5-6]. Contribution to the SDGs2&3&4 can impact positively other SDGs achievement in future, focusing to the breastfeeding among working mothers to maintain Rwandan breastfeeding from 99% breastfeeding at birth, 56% receive complementary food before six months [9]. The program to support early nutrition from one day of life of babies until 1000days of breastfeeding are developed but a special focus to the early interruption of breastfeeding discouraged [10]. Despite of all, it showed the existence of breastfeeding room at working place had avoided mother to interrupt breastmilk consuming to the babies as an optimal and irreplaceable way of feeding because of their impact to the family due to the cost of formula, their preparations process added to ignorance of made challenges, the infant tolerance, mother stress reduction due to the prevention of repetition of getting sick of their babies and reduction of absenteeism among female employee [8-13]. 2. Objective Impact of workplace breastfeeding room intervention and breastfeeding indicators among working mother in Rwanda

Prof Carin Maree

Title of Presentation

The Luswane Loluphilile partnership between the University of Pretoria and Eswatini Ministry of Health to strengthen the neonatal healthcare system

Abstract Submission

A partnership is established between the University of Pretoria and Eswatini Ministry of Health to strengthen the neonatal healthcare system to reduce morbidity and mortality in Eswatini. The project is planned based on an initial assessment visit and identification of challenges and needs. The partnership is built on collaboration and active involvement of all stakeholders under guidance of an expert team consisting of a neonatologist, health system expert, infection prevention and control specialist, neonatal nurse educator, child nurse specialist, paediatrician and project management specialist. The first phase is to conduct an in-depth systematic situation analysis of neonatal healthcare in Eswatini and benchmarking with the relevant stakeholders. This is followed by reconfiguring the neonatal health system to address the referral system, implementation of cost-effective evidence-based interventions to improve neonatal care on all levels (including kangaroo care, the use of nCPAP and protection of the mother-infant dyad), and transferring of knowledge according to the gaps and needs identified. Monitoring and evaluation of the instituted interventions are implemented to describe the outcomes. The expected outcomes include reduced neonatal mortality and morbidity, and a strengthened neonatal healthcare system with improved communication and collaboration. The project is funded by the Worldbank and stretches over two years.

Mrs Nancy Mburu

Title of Presentation

Improving neonatal care: A holistic approach at a level 2 newborn care unit in Kerugoya, Kenya.

Abstract Submission

Introduction: Effective holistic interventions are needed to improve neonatal care

Materials & Methods: This report includes events and interventions conducted and documented since 2018 to date. Data from clinical information network (CIN) and Newborn Essential Solutions & Technologies Implementation Tracker (NEST IT) has been used.

Results: A holistic care package including; renovation of the newborn unit space, provision of essential devices, training and mentorship of staff, and strengthening data and quality improvement systems was implemented. Renovations have provided space for improved family centered care and reduced cost sharing to 0%. Staff training and continuous mentorship has increased skill development, competence and confidence in the care of the neonate while integrating use of devices by a median of 20%. Monthly median length of stay for babies with jaundice reduced from a median of 7 days to 4 days with no referrals to the national hospital for exchange transfusion due to availability and effective use of LED phototherapy and reliable prompt total serum bilirubin testing. Use of Continuous Positive Airway Pressure (CPAP) in the management of Respiratory distress syndrome (RDS) has improved from 0% in 2018 to 37% in 2023. Data for action is also now a reality as the unit is able to identify gaps and take corrective action. All these efforts combined have helped reduce the neonatal mortality from a flat 22% in 2018 to a lowest unadjusted rate of 8% in 2023.

Conclusion: An investment in a holistic package of clinical services and health-system functions is required to reduce neonatal deaths

Mrs Roisin McKeon-carter

Title of Presentation

Neonatal Transitional Care Reduces Separation of Term and Late Preterm Infants (LPI) from their Mother at Birth and the Addition of a Neonatal Outreach Service Reduces The Length of Stay for LPIs.

Abstract Submission

Introduction: Neonatal Transitional Care (NTC) mooted as pathway of care from the NICU/delivery room for newborn infants that require additional care, not including high dependency or intensive care. However, the evidence to inform practice is scanty. Purpose: Term admissions to NNU increased in UK despite a fall in birth rate identified in 2017 NHS review. They (NHS) developed a benchmark to Avoid Term Admissions to NNU (ATAIN) <6% term infants. NHS challenging hospitals to minimise separation of term (>37/40) and LPIs (34-37/40) at birth to prevent cot blocking, increase breast feeding rates and reduce the sequela of separation of mother from baby at birth including adverse neonatal and maternal mental health. Method: Instigated a QI programme to identify local data compared to national benchmark, & write guideline for NTC, collaborate with perinatal team to increase TC capacity. Result: 18 bed/cot NTC, clear admission criterion, identified staffing structure including medical consultant, supporting junior doctor/ANNP team, registered midwives, & ancillary neonatal specialist health care assistants. Reduced separation of term, moderate & LPI infants from mother at birth & reduced length of stay (LOS). Conclusions: The availability of NTC beds/cots reduces separation of term, moderate and LPIs from their mother at birth. Addition of NOS reduces LOS for moderate to LPI. Recommendations: Hospitals invest in NTC. Research to include potential benefit of NTC including fiscal for hospital trusts and parents, optimised breast feeding at discharge, parental and neonatal mental health and optimal attainment at nursery and school.

Mrs Jennifer L. Middleton

Title of Presentation

Hug Me Early: Kangaroo Care within 6 Hours of Admission for Infants Born <32 weeks

Abstract Submission

Background: Immediate Kangaroo Care (KC) for low-birth-weight infants maintains body temperature, regulates heart/breathing rates, improves oxygen saturation, increases breastfeeding and in low-income settings improves survival. Although KC is common in Australian neonatal intensive care units (NICU) it is not usually immediate. A review of KC following admission to the Royal Prince Alfred (RPA) NICU revealed only 10% of babies <32 weeks received KC within 6 hours. Methods: Using the Evidence-based Practice for Improving Quality (EPIQ) framework we aimed to increase the proportion of infants <32 weeks receiving KC within 6 hours of admission to 50%. Baseline cohort data was collected for all neonates born <32 weeks between January-April 2023. Short, medium and long-term change ideas were implemented through a series of plan-do-study-act (PDSA) cycles focusing on 1) education 2) visual reminders 3) real-time data and feedback. Prospective cohort data on early KC, process and balance measures was collected for all neonates born <32 weeks from May-Oct 2023. Results: There was a significant improvement in the proportion of infants receiving early KC from either parent (from 10% to 44%; $p=0.011$). PDSA cycle 1 occurred May-July 2023 with 5/15 (33%) eligible infants receiving early KC. PDSA cycle 2, August-October 2023, demonstrated further improvement to 11/25 (44%) of infants receiving early KC. Conclusions: Education, communication and a QI framework were effective in improving early KC. Future PDSA cycles will include feedback on process and balance measures, including infant stability, lactation and parental mental health.

Ms. Dolphine Mochache

Title of Presentation

Clinical mentorship to care of small and sick newborns: The Kenyan experience

Abstract Submission

Introduction: To ensure the newborn care workforce in Kenya is competent and confident in level 2 inpatient newborn care, the NEST360 Kenya program set up a clinical mentorship program. **Materials and methods:** Newborn ETAT+ provider course, a 5-day provider course to disseminate the national comprehensive guidelines, was conducted on site in 13 level 2 newborn units. 2-3 pediatricians and nurses from each facility were identified and trained to be lead mentors in their specific facilities. They were also oriented on how to use virtual forums. WhatsApp groups were created to keep the community of practice (CoP) vibrant. Biannually, these mentors had exchange programs in other facilities within the CoP to conduct mentorship activities. **Results:** The mentors preferred to use scenarios and skills teaching to facilitate acquisition of clinical skills hands on in their units. The traditional continuous medical education (CMEs) sessions were made virtual and or hybrid to allow for more relevant people and experts to participate. All facilities created a regular biweekly or monthly schedule for audits and hybrid systematic detailed review of cases to identify and act on gaps identified. Biannual 2-3day exchange program among the mentors encouraged peer cross learning and problem solving. As a result of these activities, 85% of facilities are on target for glucose monitoring, 77% improving on prevention of hypothermia at admission, 39% on target and improving for use of CPAP and 54% improving on jaundice management. **Conclusion:** Continuous clinical mentorship is needed to improve the coverage and quality of level 2 newborn care.

Mr. Mathews Mtegha

Title of Presentation

Challenges experienced by newly qualified nurse-midwives transitioning to practice in selected midwifery settings in northern Malawi

Abstract Submission

Abstract Background: Literature shows that newly qualified nurse-midwives face challenges integrating into the workforce during their transition period from education to practice. However, little is known about the needs and challenges of Malawian nurse-midwives during their transition from education to practice. The aim of the study was to explore the transition experiences of newly qualified nurse-midwives working in selected midwifery units in Northern Malawi. **Methodology:** A qualitative descriptive approach was used. Data were collected through in-depth interviews using semi-structured interview guides from a purposive sample of 19 participants (13 newly qualified nurse-midwives and 6 key informants). The researchers developed two interview guides; one for the newly qualified nurse-midwives and another one for the key informants. The interview guides had questions related to newly qualified nurse-midwives' experiences of transitioning to practice and the support they received. Participants were from three selected hospitals in the Northern part of Malawi that have maternity units. Data were analysed manually using thematic analysis. **Findings:** Five themes related to challenges faced by newly qualified nurse-midwives during their transition to practice in midwifery units emerged from the thematic analysis of the data. These included (1) Theory—practice gap, (2) Lack of confidence and skills, (3) Inadequate resources, (4) Transition support system, and (5) Workplace conflict. **Conclusion:** Newly qualified nurse-midwives in Malawi encounter many challenges while transitioning from education to practice. The study findings underscore the need to develop a national framework support system that could not only help newly qualified midwives adjust positively to their new role but also create more opportunities for learning and developing and strengthening a collaborative partnership between colleges and hospitals.

Mrs Alice Muhayimana

Title of Presentation

STRATEGIES TO SUSTAIN RESPECTFUL MATERNAL AND NEONATAL CARE IN RWANDA:
APPRECIATIVE INQUIRY

Abstract Submission

This study focuses on Respectful Maternal and Neonatal Care (RMNC) in health facilities within the Eastern province of Rwanda, emphasizing positive experiences and best practices. Previous research in Rwanda primarily addressed negative childbirth experiences, making this study distinctive in its positive approach. The aim was to evaluate and explore RMNC to sustain positive experiences and practices. The mixed-method study involved 610 recently postpartum women (quantitative), 30 in-depth interviews (IDIs) with women reporting respectful care, 10 focus group discussions (FGDs) with midwives and nurses, and 10 IDIs each with physicians and maternity unit managers. Ethical clearance was obtained. Results indicated that most women (70.2%) reported receiving higher-than-average RMNC. Caesarean section delivery correlated significantly with the reported high RMNC. Notable RMNC aspects included the high level of autonomy in taking foods and fluids (98.5%), freedom from discrimination (96.2%), and receiving needed services (96.1%). Thematic analysis identified five themes and sub-themes, leading to developing strategies for sustaining RMNC. These strategies encompass women and neonatal-centred care, facility childbirth environment improvement, community trust preservation, professionalism development, and supportive leadership strengthening. The study highlights its unique contribution of focusing on positive aspects and strengths, employing Appreciative Inquiry (AI) within a resource-limited setting. The results offer culturally accepted insights into RMNC, crucial for informing future practices and policies in maternal and neonatal care in Rwanda.

Dr. Umar Muhumuza

Title of Presentation

"Empowering Mothers as Partners in Neonatal Care: A Path to Healthier Newborns and Stronger Communities in Refugee Settings: A Case Study in Uganda"

Abstract Submission

Background In the realm of neonatal care, the role of mothers as active partners in the care of their newborns is an emerging paradigm shift with the potential to revolutionize global healthcare. This scientific abstract delves into the concept of empowering mothers to actively participate in the neonatal care journey, elucidating the profound impact it has on neonatal health and community well-being within the unique context of refugee communities in Uganda. Refugee communities often face a multitude of challenges, including limited access to healthcare, the emotional strains of displacement, and increased vulnerability among newborns. The critical gap in research lies in understanding the feasibility and effectiveness of implementing Kangaroo Mother Care (KMC) within these refugee settings. While KMC has proven effective in improving neonatal health in various contexts, its impact within refugee communities in Uganda remains largely unexplored. This gap in research is significant because it leaves unaddressed the specific needs and challenges faced by refugees, which can have a profound effect on neonatal outcomes and maternal well-being.

Methods: The study population included mothers and their newborns residing in refugee settlements in Uganda. We employed a mixed-methods approach, combining qualitative and quantitative data collection methods. Inclusion criteria encompassed mothers of newborns with gestational ages below 37 weeks or birthweights less than 2,500 grams. Qualitative data was collected through in-depth interviews with mothers to understand their experiences and perceptions of KMC in a refugee context. Quantitative data involved the analysis of health records, observation of KMC practices in healthcare facilities, and structured surveys with questions related to neonatal health, emotional well-being, and community support.

Results: Our findings demonstrate the tangible benefits of KMC in refugee communities. The neonatal mortality rate in the study population decreased by 35% compared to the control group, highlighting the life-saving potential of KMC in resource-constrained environments. Additionally, 80% of surveyed mothers reported reduced symptoms of postpartum depression, indicating the positive impact on maternal mental health. Furthermore, 95% of participants expressed increased confidence and competence in caring for their newborns through KMC.

Conclusions: Empowering mothers as active partners in neonatal care, particularly through KMC, is a transformative approach that yields profound benefits in refugee settings. The statistically significant reduction in neonatal mortality underscores the life-saving potential of KMC in resource-limited environments. Moreover, the alleviation of postpartum depression symptoms among mothers demonstrates the positive impact on maternal emotional well-being. In conclusion, this research highlights the potential for KMC to enhance the well-being of refugee communities by fostering healthier newborns and stronger, more resilient populations. The significant improvements observed in both neonatal and maternal

outcomes emphasize the importance of culturally sensitive approaches to neonatal care within refugee contexts. This approach not only builds stronger community bonds but also contributes to the resilience of communities facing adversity in displacement.

Mrs Renee Muirhead

Title of Presentation

Development of a Neonatal Nurse Controlled Analgesia model of care to optimise pain management for the surgical neonate.

Abstract Submission

Background: There is no gold standard to guide management of neonatal post-operative pain. The development of a model of neonatal nurse-controlled analgesia provides a collaborative approach that will ensure safe, individualised and responsive pain relief for surgical neonates, avoiding excessive use of analgesics. **Methods:** Fifty-one multi-disciplinary neonatal experts from across Australia and New Zealand were invited to participate as panellists in an e-Delphi study. In round one, 49 statements on neonatal pain assessment and management derived from the evidence and a cross sectional survey of neonatal surgical units, were distributed to the panel. Panellists were asked to rate their level of agreeance on a Likert scale from 1-5 with the proposed statement. Consensus was achieved with a total score of 70% or greater for each statement. An opportunity for free text responses after each statement was provided. **Results:** Thirty-seven (37) expert neonatal clinicians and researchers agreed to participate in the study, with 33 (89%) panellists responding to round one, 31(84%) to round two, and 25 (84%) to round three of the e-Delphi. Following three rounds, the final model was presented back to the panellist's which consisted of criteria for use, over-arching guidelines and three separate pathways based on pain assessment scores, need for pain relieving interventions and time lapsed post-surgical procedure. **Conclusion:** The developed model provides family-centred comprehensive guidelines and pathways for the assessment and management of post-operative pain for the surgical neonate. Further testing of the model will provide information on the applicability of the model for neonatal practice.

Sister Benenia Muzuva

Title of Presentation

Experience establishing an immediate Kangaroo Mother Care unit in Harare, Zimbabwe

Abstract Submission

Abstract Mortality of VLBW babies at Mbuya Nehanda Hospital was very high (60%). Key quality indicators revealed many opportunities for improvement. Moderate/severe hypothermia on admission occurred in 45% VLBW babies. Only 43% of VLBW received any KMC and only 14% of VLBW infants' mothers had received any antenatal steroids. The neonatal unit faced many operational challenges including a shortage of incubators, and a high turn-over of staff. To address these problems it was decided that the unit would set up an immediate Kangaroo Mother care unit and use this as a vehicle to address multiple areas of quality of care in VLBW infants. With community engagement a 6 bed iKMC unit was established and will open in Feb 2024. The presentation will describe the experiences, obstacles and lessons from establishing a iKMC unit – in addition to the costings and nurse training requirements and experiences. Data will be presented on changes in core quality benchmarks including hypothermia, antenatal steroids, KMC use, breastfeeding rates and survival. Discussion will include certain innovations such as seconding neonatal nurses into the delivery suite, community engagement, and experiences of maximising delayed cord clamping and skin to skin in VLBW babies.

Sir Patrick Mwangi

Title of Presentation

Level of Knowledge, Attitude and practice on early recognition of persistent pulmonary hypertension of the newborn among nurses working in newborn unit, Kenyatta national hospital.

Abstract Submission

DETERMINING THE LEVEL OF KNOWLEDGE, ATTITUDE AND PRACTICE ON EARLY RECOGNITION OF PERSISTENT PULMONARY HYPERTENSION OF THE NEWBORN AMONG NURSES WORKING IN THE NEWBORN UNIT, KENYATTA NATIONAL HOSPITAL. PATRICK MWANGI WANJIRU REGISTRATION NUMBER K/4/190 RESEARCH PROPOSAL SUBMITTED TO KENYATTA NATIONAL HOSPITAL SCHOOL OF NURSING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE WARD OF HIGHER DIPLOMA IN NEONATAL CARE NURSING JULY 2023 DECLARATIONS I, Patrick Mwangi Wanjiru, hereby declare that the research proposal titled " Determining the level of Knowledge, attitude and practice on early recognition of persistent pulmonary hypertension of the new-born among nurses working in new-born unit, Kenyatta national hospital." submitted to Kenyatta school of nursing is my original work and represents my own ideas and intellectual contributions. I confirm that I have undertaken this research proposal with utmost honesty and integrity, adhering to the ethical standards and guidelines established by the academic and scientific community.

SignatureDate..... PATRICK MWANGI REG K/4/190

DECLARATION BY SUPERVISOR This research has been submitted for examination with my approval as the Training Centre Supervisor. Programme: Neonatal nursing School: Kenyatta National hospital school of Nursing. JANE W. NAMU, BSCN/KRNeoN

Signature..... Date..... DEDICATION This research proposal is dedicated to all the infants and new-borns who enter the world facing the challenges of health complications, especially those affected by Persistent Pulmonary Hypertension of the New-born (PPHN). May our collective efforts towards advancing knowledge and improving medical practices contribute to a brighter and healthier future for Neonates. In loving memory of those who have lost their lives to PPHN and other neonatal conditions, may this research strive to prevent such tragedies in the future. To the families, caregivers, and healthcare professionals who tirelessly support and care for these little ones, your dedication and strength inspire our pursuit of better understanding and care. This dedication also extends to the diligent nurses working tirelessly in new-born units. Your commitment to ensuring the well-being of these vulnerable patients is truly commendable. May this research proposal serve as a testament to your essential role in early recognition and management of PPHN, and may it contribute to enhancing your knowledge and practices. Lastly, this proposal is dedicated to the pursuit of knowledge and progress in the field of neonatal healthcare. May our collective efforts lead to advancements that benefit generations to come, fostering a world where every new-born has the opportunity to thrive and live a healthy life. With heartfelt dedication, Patrick Mwangi Wanjiru

ACKNOWLEDGEMENT First and foremost, I would like to thank the almighty God for the

knowledge and gift of life. I extend my heartfelt thanks to my supervisor, Madam Jane Namu, for her invaluable guidance, unwavering support, and insightful feedback throughout the course of this research. Her expertise and dedication played a pivotal role in shaping the direction of this study.

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LIST OF ABBREVIATIONS
NBU- Newborn unit
PPHN- persistent pulmonary hypertension
NICU- Neonatal intensive care unit
KNH- Kenyatta national hospital
WHO- World health organization
KRCHN- Kenyatta registered community health nurse
BSCN- Bachelor of nursing
KRNEON- Kenya registered neonatal nursing
RDS- Respiratory distress syndrome
MAS- Meconium aspiration syndrome
DM- Diabetes mellitus
PEEP- Positive end expiratory pressure

DEFINATION OF SIGNIFICANT TERMS
Level of Knowledge:Operational Definition: The extent to which nurses possess accurate and comprehensive information about persistent pulmonary hypertension of the newborn (PPHN), its causes, risk factors, clinical manifestations, diagnostic criteria, and management options.
Attitude:Operational Definition: Nurses' overall predisposition, feelings, and emotions toward recognizing and addressing persistent pulmonary hypertension of the newborn. This encompasses their beliefs, perceptions, and values related to the importance of early detection and intervention.
Practice:Operational Definition: The actual behaviors and actions exhibited by nurses when it comes to identifying and managing cases of persistent pulmonary hypertension of the newborn. This includes their application of knowledge and adherence to established protocols and guidelines in clinical settings.
Early Recognition:Operational Definition: The prompt identification of signs and symptoms associated with persistent pulmonary hypertension of the newborn in neonates, allowing for timely initiation of appropriate interventions and treatments.
Persistent Pulmonary Hypertension of the Newborn (PPHN):Operational Definition: A condition characterized by elevated pulmonary vascular resistance resulting in abnormal shunting of blood through the fetal circulatory pathways after birth. It involves the failure of the normal circulatory transition that occurs with the onset of breathing after delivery.
Newborn Unit:Operational Definition: A specialized medical facility or department within a hospital that provides care to newborn

infants, including premature and full-term infants requiring specialized medical attention.

Nurses:Operational Definition: Registered healthcare professionals with training and qualifications in nursing, responsible for providing medical care, monitoring, and support to patients, including newborns, in various healthcare settings.

ABSTRACT BACKGROUND; Persistent Pulmonary Hypertension of the Newborn (PPHN) is a critical condition that demands timely identification and intervention. This research proposal aims to assess the level of knowledge, attitude, and practice among nurses working in a newborn unit regarding the early recognition of PPHN.

OBJECTIVES; the primary objective of this study is to gauge the nurses' understanding of PPHN, their perceptions towards its significance, and their application of appropriate practices for its early detection. By evaluating these factors, the research seeks to identify potential gaps in knowledge and training that may hinder optimal patient care and early intervention.

METHODOLOGY; the proposed research will employ a mixed-methods approach, combining quantitative surveys and qualitative interviews. A structured questionnaire will be distributed among nurses to quantitatively assess their knowledge of PPHN, their attitudes towards its importance, and their current practices in recognizing its symptoms. Additionally, qualitative interviews will provide deeper insights into the factors influencing nurses' perceptions and practices.

SIGNIFICANCE; the anticipated outcomes of this study include a comprehensive understanding of the current level of knowledge, attitudes, and practices among nurses regarding PPHN. The findings will provide valuable insights for healthcare institutions and educators to design targeted training programs, interventions, and strategies to enhance nurses' proficiency in early recognition and management of PPHN. Ultimately, the research aims to contribute to improved patient outcomes and a reduction in the morbidity and mortality associated with PPHN.

CHAPTER ONE: INTRODUCTION

1.1 Background

information PPHN occurs when the typical circulatory changes that take place during birth fail to happen properly. This leads to continuous high blood pressure in the pulmonary arteries and abnormal blood flow patterns of non-oxygenated blood across the ductus arteriosus and foramen ovale. This further results in hypoxaemia causing circulatory failure.

(2022) Nandula and Shah, The prevalence of PPHN differs geographically. It is lower than 0.5% in high-income state, whereas in low- and middle-income state it reach between 3% and 5%. The commonest aetiologies of PPHN are meconium aspiration syndrome (MAS), respiratory distress syndrome (RDS) and pneumonia. There are various risk factors associated with PPHN such as term and post-term neonates, male gender, female gender, caesarean section delivery, intra-uterine growth restriction, maternal diabetes and low Apgar score.

(2022) Martinho et al Disregard advances in the establishment of PPHN, which includes improving oxygenation by optimising lung volume by ventilatory techniques, surfactant and administering pulmonary vasodilator agents, the morbidity and mortality associated with this condition remains a challenge, ranging from 20% to 50%. In South Africa, earlier studies reported PPHN mortality rate between 30% and 50% The overall occurrence of persistent pulmonary hypertension in newborns is 1.8 cases per 1000 live births. However, contrary to popular belief, late preterm infants have a higher incidence rate at 5.4 cases per 1000 live births compared to term infants, who have an incidence rate of 1.6 cases per 1000 live births (Martinho et al., 2022). The mortality rate varies between 7.6%

and 10.7%, depending on the severity of the condition. Boys face a higher risk compared to girls, with an adjusted risk ratio of 0.8 (95% confidence interval). Among different ethnic groups, African American babies have the highest risk, followed closely by Hispanic and Asian infants (Martinho et al., 2022).

1.2 Problem statement

Persistent pulmonary hypertension of the newborn (PPHN) is a common reason for admission to the neonatal intensive care unit and is associated with both mortality and variable morbidity. It is characterized by a failure of the normal decrease in pulmonary vascular resistance after birth, leading to oxygenation failure and potential right ventricular dysfunction. Having a better understanding of the physiological factors contributing to this condition can help nurses comprehend its clinical presentation and make more informed decisions regarding intensive care management (McNamara et al., 2018). In order to effectively address PPHN, the inter-professional healthcare team, including nurses and respiratory therapists in the newborn nursery, should obtain instruction on recognizing the signs and symptoms associated with this condition. Pharmacists also play a role in cases where medicine is part of the administration plan, ensuring accurate medication reconciliation, dose verification, and coordination with the organization clinician. Furthermore, language, activity, and physical therapists are essential in improving neurologic outcomes, particularly in babies with PPHN who undergo extracorporeal membrane oxygenation (ECMO) treatment (Nandula & Shah, 2022). During my time working at Kenyatta National Hospital's newborn unit, I noticed that many nurses faced challenges in their knowledge of early recognition and care for neonates with PPHN. They often lacked awareness of the causes and appropriate care interventions that should be initiated within a few hours after delivery to prevent PPHN. Additionally, I observed instances where some newborns had PPHN but were either misdiagnosed or remained undiagnosed. These gaps in neonatal care significantly impacted the health outcomes and continuity of care provided by nurses. At the newborn unit, there was a lack of clear information and guidelines regarding the early recognition and care of neonates with PPHN, leading to inconsistent practices and varying levels of care provided by nurses.

1.3 Justification

Lack of knowledge on early recognition and appropriate care for PPHN may lead to poor outcomes such as hearing deficits, stroke, heart failure, kidney failure, brain haemorrhage, seizures cerebral palsy, oxygen dependence and pulmonary disease. This can lead to long hospital stay by the neonate leading to accumulation of bills and increased hospital visits resulting in financial challenges. Despite advancements in medical knowledge and technology, there is a paucity of research specifically focusing on assessing the knowledge, practice, and attitudes of nurses in the care of newborns with PPHN. Limited research exists on the specific challenges faced by nurses in this domain, their understanding of PPHN pathophysiology and treatment modalities, as well as their attitudes towards evidence-based practices. Identifying these knowledge gaps and understanding the factors that influence nurses' approach to PPHN care is essential for developing targeted interventions and improving patient outcomes. (Delaney & Cornfield, 2012). This research will be able to help correct the in-consistence's in existing care given to neonates with PPHN by nurses leading to enhanced confidence and outcomes amongst themselves in their skills. The study will also help policy makers in updating and direction of training for nurses in early recognition of PPHN and educational policies that can help

nurses to give proper care hence better outcomes. 1.3.1 Broad objectives The aim of the study is to assess the level of knowledge, practice and attitudes on early recognition and care for neonates born with PPHN at the newborn unit, Kenyatta national hospital. 1.3.2 Specific objectives To determine the nurses level on knowledge on neonates with PPHN among nurses working in newborn unit To assess the attitudes of early recognition of PPHN on neonates among nurses working in newborn unit To assess the practice and care management protocol followed on care of neonates with PPHN among nurses working in the newborn unit. 1.3.3 Research questions What is the level of nurses knowledge on neonates with PPHN What are the nurses attitudes and indicators for early recognition of PPHN on neonates What are the practice and care guidelines followed on care of PPHN on neonates 1.4 Significance of the study The aim of the study is to help improve knowledge on early recognition and care of nurses on the management of newborns with PPHN, translating to better outcomes by giving appropriate care within the first few hours of life, it will be a learning process for the researcher on knowledge about PPHN, appropriate care required to be given and the pathophysiology and diagnosis of PPHN. Patient Safety and Outcomes: Effective care delivery is contingent upon nurses possessing accurate knowledge of PPHN and its management. By evaluating nurses' knowledge, practice, and attitudes, this research can identify potential areas of improvement, leading to enhanced patient safety and improved clinical outcomes. The research will help the researcher in knowing what has been researched in the area of knowledge on early recognition of PPHN among nurses, and the appropriate care given globally and locally and ongoing studies to help improve better neonate's outcome 1.5 Conceptual framework Independent variables Dependent variable CHAPTER TWO: LITERATURE REVIEW 2.0 Introduction Perinatal care, especially in the context of neonatology, plays a critical role in ensuring the well-being of newborns. Among the many challenges that neonates may face, persistent pulmonary hypertension of the newborn (PPHN) stands out as a significant concern. PPHN is a condition characterized by high pulmonary vascular resistance and persistent fetal circulation, leading to impaired oxygenation and potential cardiovascular compromise. (Geggel & Reid, 1984) Prompt and effective care by healthcare professionals, particularly nurses, is vital in managing PPHN and optimizing outcomes for affected neonates. The knowledge, practice, and attitude of nurses regarding the care of neonates with PPHN significantly influence the quality of care provided. Knowledge refers to the understanding and awareness of the condition, its pathophysiology, diagnosis, and evidence-based interventions. (Geggel & Reid, 1984) Practice encompasses the implementation of appropriate interventions, such as respiratory support, oxygen therapy, and pharmacotherapy, in accordance with established guidelines and protocols. Attitude refers to the beliefs, values, and professional approach that nurses adopt when caring for infants with PPHN. (Nair & Lakshminrusimha, 2014) The importance of nurses' knowledge, practice, and attitude in caring for neonates with PPHN cannot be overstated. Adequate knowledge equips nurses with the necessary skills to assess and monitor the condition effectively, identify potential complications, and make informed decisions regarding appropriate interventions. Proficient practice ensures the accurate and timely implementation of evidence-based interventions, promoting optimal physiological stability and minimizing potential complications. Furthermore, a positive attitude,

characterized by empathy, compassion, and a patient-centered approach, fosters a supportive and therapeutic environment for both the neonate and their family. (Nair & Lakshminrusimha, 2014) While several studies have investigated various aspects of PPHN management, there is a need to explore the specific literature regarding the knowledge, practice, and attitude of nurses in caring for neonates with PPHN. Understanding the current state of nurses' knowledge, practice, and attitude in this domain is crucial for identifying areas of improvement and implementing targeted interventions to enhance the quality of care provided. (Farrow et al., 2005) This research aims to conduct a comprehensive review of the existing literature on nurses' knowledge, practice, and attitude regarding the care of neonates with PPHN. By synthesizing the findings from relevant studies, this review intends to provide insights into the current understanding and practices in this area. Additionally, it seeks to identify gaps in knowledge, potential barriers to effective care, and areas for future research and development of educational programs. (Farrow et al., 2005)

Professor Evalotte Mörelius

Title of Presentation

Evaluation of the Early Collaborative Intervention focusing on interaction between parents and their moderate to late preterm infants in the NICU. A randomised clinical study

Abstract Submission

Introduction: Few evidenced-based interventions aiming to support parent-infant interaction are available for moderate to late preterm infants in the neonatal intensive care unit (NICU). The EARly Collaborative Intervention (EACI) is developed to support interaction between preterm infants >30 weeks gestational age and their parents in the NICU. EACI-sessions are delivered twice in the NICU and once in the home after discharge. Infant's behavioural cues are discussed with both parents as they perform a care-taking task. Instant feedback is provided to give parents opportunity to notice and respond to cues in a sensitive way. Interviews with mothers have shown qualitative benefits with EACI. Aim: To evaluate the effects of EACI on parent-infant interaction, neurobiological co-regulation, and cognitive development. Method: Randomised controlled trial with 143 families allocated to standard care or EACI. Parent-infant interaction was analysed with Ainsworth's Maternal Sensitivity Scales and Emotional Availability Scales in relation to a bath at one month corrected age. Salivary cortisol co-regulation was measured in the mother-infant dyad after still-face at four months corrected age and cognitive development was assessed with Bayley-scales at one year. Data was analysed with SPSS. Preliminary Results: Mothers' availability, acceptance, and non-hostility scores were higher in the EACI group ($p < 0.05$). Salivary cortisol co-regulation was significant in the EACI group ($\rho = 0.75$, $p < 0.001$) but not in the standard care group. Infants in the EACI group had higher scores on receptive language at one year of age ($p < 0.05$). Conclusion: EACI can improve parent-infant interaction, neurobiological co-regulation and preverbal behaviour for preterm infants >30 weeks.

MRS SHARON NURSE

Title of Presentation

An educational initiative to improve End-of-Life care for babies and their families in N.Ireland

Abstract Submission

Some babies admitted to neonatal intensive care cannot be saved, so it is vital to provide babies and their families with the best possible, holistic care until the end of life (EOL). Until recently, there was no MDT education and support for NICU staff providing EOL care in N. Ireland, so we have initiated change in the following ways: 1. We designed a regional multidisciplinary conference focusing on neonatal EOL and palliative care, and how best to provide a 'good death'. The event consisted of lectures, shared parental experiences, open discussion and simulation, enabling delegate participation and mutual learning; professionals from Children's Hospice brought new thinking to our forum. 2. Neonatal death is challenging for professionals who have limited exposure during their training (Nurse & Price, 2017), and junior staff often develop skills by replicating what they observe from more experienced peers. By using simulation scenarios, we have enhanced staff learning, assisting them in developing new skills which enable them to support bereaved parents. Debriefing encourages shared learning and increases confidence from participants. 3. Filmed scenarios such as difficult conversations in EOL care/ palliative care, also parental support and memory-making. These films make excellent tools for discussing and reflecting on practice, and exploring inherent ethical issues. 4. Regular staff education sessions on EOL care are now scheduled where feedback is used for future planning. This presentation reports on education strategies and their impact on confidence in our MDT approach to EOL care provision and supporting families at this challenging time.

Ms. Aya Nakai

Title of Presentation

Noninvasive respiratory support for early extubation in extremely premature infants: A scoping review

Abstract Submission

Background: Over the past few decades, primary respiratory management of extremely premature infants has shifted toward avoiding intubation and minimizing mechanical ventilation to prevent pulmonary complications. However, since extremely premature infants are still at risk for respiratory failure and acute early postnatal complications, almost half of this patient population experiences reintubation within a week of the transition to noninvasive respiratory support. Objective: This scoping review aimed to systematically map the literature on the use of noninvasive respiratory support in extremely premature infants, with a focus on peri-extubation nursing care. Methods: We conducted a comprehensive search using the MEDLINE database. Studies published from January 1, 2000, to December 1, 2023 were explored. Review questions were carefully considered and framed using the Population, Concept, and Context format. Inclusion criteria: The study participants were infants born extremely prematurely (< 28 weeks of gestation). The concept focused on noninvasive respiratory support in the context of neonatal intensive care units. Results: A total of 406 articles were retrieved from the database at the time of abstract submission. Titles and abstracts are currently under review. Once screening and full-text review are completed, search results and the study inclusion process will be reported at the conference. We will discuss enhanced collaboration of healthcare teams to promote the physiological stability of extremely premature infants on noninvasive respiratory support. Ethical approval was not required for this review, and the authors declare no conflicts of interest.

Associate Professor Linda Ng

Title of Presentation

If we develop it, will they stay?

Abstract Submission

Aims and Background: As a result of the global nursing shortage, new graduates are being placed into neonatal intensive care units (NICUs), which are acute complex caring environments. It is recognized that inadequate support can lead to high attrition of new graduates from the workplace. To adequately support new graduates in this environment, educators need to understand the new graduate experiences and preparedness for working in NICUs. A qualitative systematic review was undertaken to identify and synthesize evidence around nurses' perceptions, challenges, facilitators, and barriers they experienced during their first 12 months post-registration in a NICU. **Methods:** Five databases were searched, and the review followed principles of meta-aggregation in line with the JBI approach. Methodological quality assessment was based on representation of participants' voices and congruence between research methodology, research question and analysis of data. **Results:** Three qualitative studies were included in the review. The narratives of 27 new graduate nurses generated 39 findings that formed 8 categories based on similarity of meaning. Two synthesized findings were generated from these categories: (i) feeling unprepared (ii) Job satisfaction despite challenges. Feeling unprepared included the lack of neonatal specific content in undergraduate training and inconsistent clinical support. Nurses reported job satisfaction despite challenges such as stress caused by their lack of knowledge and attitudes from staff. **Conclusions:** To our knowledge this is the first systematic review investigating new graduate experiences in the NICU. The review highlighted the complexities of experiences faced by new graduate nurses in the NICU setting. In particular, the findings highlighted that new graduates were unprepared and lacked confidence to work in this complex environment. It is timely to consider how we can create supportive work and learning environments for these new graduates. Further research exploring interventions that can effectively transition new graduates to NICU practice is recommended.

Associate Professor Linda Ng

Title of Presentation

Sustainability of the Australian neonatal workforce

Abstract Submission

The global nursing shortage is not a new phenomenon, and the literature has been predicting the mismatch in nursing service provision and service demand since early in the 21st century. Most developed countries are confronting the reality of a nursing workforce that is rapidly ageing at a time when healthcare demands are increasing. Although the recent economic downturn has postponed the early retirement of many nurses, more than one third of the nursing workforce are between the ages of 50 and 64. Although it was originally thought that the primary driver behind nurse staffing shortages would be the aging of the nursing workforce and the expected retirements, it has become apparent that the departure of younger nurses is actually having a more substantial impact on the shortage. Millennial nurses, those born between 1981 and 1986, are projected to become the largest age group in the nursing workforce by 2025. Yet these nurses are leaving acute care settings and the nursing profession at higher rates. Traditional methods to address the nursing shortages such as increasing educational capacity, improving nurses' productivity and international recruitment may not be adequate considering the long-term prospects of a declining population with fewer entrants into the workforce. Improving retention rates is crucial for efficiently addressing the ongoing nursing workforce crisis, ensuring an adequate number of nurses to replace the 'baby boomer' generation as they retire over the coming decade.

Ms Novardian None

Title of Presentation

Reducing MARSİ prevalence in an Indonesian perinatology unit: A quality improvement initiative

Abstract Submission

Background Skin injuries contribute to neonatal morbidity and mortality. An observational study of all neonates in the perinatology unit of Dr. Cipto Mangunkusumo Hospital, found 54% had one or more Medical Adhesive Related Injuries (MARSİ) events. The aim of this quality improvement (QI) initiative was to reduce the prevalence of MARSİ through implementation of a MARSİ prevention bundle. **Methods** The QI initiative undertaken from February-November 2023, introduced a MARSİ Bundle modified from McNichol et al., (2013) and August et al., (2020) for all neonates. Outcome measures were the prevalence of MARSİ at pre-intervention (Quarter (Q) 1) during implementation (Q2) and post-implementation (Q3). Implementation education comprised of didactic, multimedia and practical training addressing risk factors, skin preparation, adhesive selection, application, adhesive removal technique. Audits for bundle effectiveness occurred one-day each month for all inpatients, and included assessment for adhesive application/s and MARSİ events. Data were analyzed descriptively. **Results** Over the QI period, 715 neonates were observed (gestational ages 24 – 48 weeks and chronological age between 0– 205 days). MARSİ prevalence pre-implementation was 8.6%. MARSİ prevalence increased to 9.5% during the implementation in May then decreased to 1.5% in September and 0% was observed post-implementation in November. Epidermal stripping (n=32, 75%) was the most common MARSİ observed. **Conclusions** A neonatal MARSİ Bundle was effective in reducing injury events. This QI initiative required ongoing monitoring and staff mentoring over an extended period to achieve an outcome of no MARSİ events. Future monitoring and new staff training will be required to maintain no MARSİ.

Ms Novardian None

Title of Presentation

Indonesian Nurses knowledge, attitude, confidence, and compliance around Neonatal MARSİ

Abstract Submission

Background Neonatal nurses have a pivotal role in Medical Adhesive Related Skin Injury (MARSİ) prevention and identification. However little is known of Indonesian neonatal nurses' knowledge, attitudes, confidence, or compliance related to MARSİ. A nursing workforce evaluation was nested within a quality improvement (QI) project involving the implementation of a MARSİ prevention bundle. **Methods** The QI project occurred from February-November 2023. Four questionnaires were translated and modified for the local context to assess knowledge (August et al., 2020), attitude (Beeckam et al., 2010), confidence (Chuang et al., 2022). The questionnaires were distributed to neonatal nurses at 3-timepoints (pre, during and post-implementation of the bundle). Assessment of compliance (Neonatal Skin Forum, 2019) was undertaken by regular audits of neonates. Data were analyzed descriptively. **Results** Over the 3-timepoints the response rates were: knowledge and confidence (n=81-97), attitude (n=68-91); representing 67-89% of total nursing staff. Pre to post-implementation results showed an overall knowledge increase from 44% to 90%; being moderately confident to identify and prevent MARSİ decreased from 60 to 40%, while very confident increased from 20% to 55%. Attitude change increased up to 60% for the strongly agree category. Assessment of neonates (n=112-635 over the QI period) showed compliance increased from 26% to 99%. **Conclusions** The Positive result changes were observed over a short period with ongoing mentoring and education sessions spanning 10 months. The challenge remains in maintaining knowledge, confidence, and compliance in identifying and preventing MARSİ over time. The introduction of skin care champions and ongoing mentoring may assist.

Ms Gillion Noreiks

Title of Presentation

Implications from an RCT for cessation or weaning of incubator humidification for 140 infants and clinical practice evaluation of implementation in a single neonatal unit. Or Incubator humidification after seven days an RCT: no effect on temperature, sodium or skin injury

Abstract Submission

Noreiks, G1, Lai, M1,2, August, D1,3, Davies, MW1,2 1Grantley Stable Neonatal Unit, Royal Brisbane and Women's Hospital, Herston, Brisbane, Queensland 2School of Medicine, University of Queensland, St. Lucia, Brisbane, Queensland 3School of Nursing, Midwifery and Social Work, University of Queensland, St. Lucia, Brisbane, Queensland Email: gill.noreiks@health.qld.gov.au Background: Nurses caring for extremely low birthweight (ELBW) infants, initiate and manage incubator humidification to mitigate complications associated with premature skin. Incubator humidification (70-90%) in life's first weeks reduces insensible losses, stabilises serum sodium and promotes thermoregulation. However, evidence to guide humidification management is limited. Methods: This single site, powered randomised controlled trial, evaluated the effect of stopping humidification after seven days (SH) versus gradual reduction (RH) from day eight to fourteen. Eligible infants born ≤ 27.6 , were recruited between April 2019-March 2022. Outcomes assessed included i) episodes of hyponatraemia ($<135\text{mmol/L}$), ii) hypernatraemia ($>145\text{mmol/L}$), iii) temperature instability (<36.5 and >37.5) and iv) mechanical skin injury (stages 1-4). Additional secondary outcomes included mortality, respiratory support and hospitalisation duration. Results: Of 196 infants screened; 140 were enrolled with 0 withdrawals; and 70 infants allocated to each arm. There were no differences in clinical characteristics between groups. At least 70% of infants experienced hyperthermia (73%, $n=51$, RH and 77%, $n=54$, SH) and greater than 30% experienced hypothermia (37%, $n=26$, RH and 53%, $n=37$, SH). Events of hyponatraemia were similar, however 26% ($n=18$) in SH had hypernatraemic events compared to 17% ($n=12$) in RH. At least 60% of infants in week two of life sustained a skin injury (67% RH and 63% SH). There were no statistically significant differences in any primary or secondary outcomes. Conclusion: Gradual reduction or cessation of humidification had no impact on ELBW infants, further multicentre studies may explore practice implications and the most effective timepoint for incubator humidification cessation.

Claudine Nshutiyukuri

Title of Presentation

A qualitative approach to understand Knowledge about Teenage Pregnancy and Attitude towards Adolescents Sexual Reproductive Health services Utilization by teen mothers in Eastern Province of Rwanda

Abstract Submission

Background: Adolescents around the world are known to be sexually active. A great number of teenage females become pregnant in developing world including Rwanda. This increasing number of teenage pregnancies indicates that adolescents are not using correctly sexual reproductive health services. Despite that these services in Rwanda are available, the question would be to know the reasons these services are not used. Thus, the aim of this study was to explore knowledge, attitude and the utilization of Adolescents Sexual Reproductive Health Services among teen mothers aged between 16 to 19 years old in Rwanda. Main objective: To explore knowledge about teenage pregnancy and attitude towards adolescent sexual reproductive health services utilization among teen mothers between 16 to 19. Methods: A qualitative descriptive design combined with the theory of reasoned action devised from Conner & Sparks (2005) was used. An in-depth interview guide was used. Results: Three major themes emerged from this study including: (1) Knowledge about teenage pregnancy, (2) perceived Impact of Teenage Pregnancy (3) Knowledge about and attitude toward ASRH service utilization. Conclusion: While all young mothers were well under pressure of the multitude of impacts brought to them by teenage pregnancy, parenthood and social responsibilities, limited knowledge and the utilization of the ASRH program was remarkable, suggesting current programming is not providing enough information to adolescents. There is first and foremost a need to increase knowledge about the realities of teenage pregnancies and provide a flexible teen pregnancy prevention program among the study population.

MRS MAUREEN O'DOWD

Title of Presentation

Development of a Tripartite Approach to Teaching Neonatal Resuscitation

Abstract Submission

The aim of our project is to educate the neonatal multidisciplinary team (MDT) in neonatal resuscitation through a tripartite learning approach which consists of an online learning tool, practical sessions, and simulation. Online learning: The online learning package is composed of sections, each one dealing with a different scenario, showing how the health professional should manage the emergency. The sections contain short films and points to remember, followed by questions to test knowledge on how each scenario should be managed. There are interactive sections on drug calculations and administration, as well as rationale for each stage of the resuscitation process. A final Multiple Choice Question test is completed and a score given; this certificate is produced at the practical resuscitation session Practical sessions: All staff complete neonatal resuscitation training regularly, attending a hands-on session where they learn /revise the requisite skills using low fidelity simulation. These skills are tested by asking them to manage a given scenario; de-briefing afterwards is essential to encourage shared learning. Simulation: Scenarios using high fidelity simulation enables MDT working and provides learners with an opportunity to learn about and respect each other's roles and has the potential to improve working relationships, communication and safety in the clinical area. Debriefing and 'take-home' messages are vital if learning is to take place. We gathered data on how the staff evaluated this system of learning, and its effectiveness in increasing confidence and effectiveness, in learning and maintaining vital skills used in neonatal resuscitation in all clinical areas.

Mrs Maureen O'Dowd

Title of Presentation

Abstract Submission

Gastroschisis is a congenital anomaly of the anterior abdominal wall characterised by herniation of abdominal contents through a defect usually located to the right side of the umbilical cord. Team-working and clear communication between the obstetric, neonatal, and paediatric surgical teams is critical in achieving optimal outcomes. Objectives: Our objective was to create an interprofessional simulation programme that improves gastroschisis delivery stabilisation, efficiency of bowel wrapping and clear communication amongst the MDT with the overall goal of improving the rate of primary closure and outcomes in our unit. The method involved gastroschisis simulation model was created using vegan sausage casings, jelly, and food colouring to create the bowel. The simulation programme focused on education of optimal management, team roles and delivery room preparation, primary resuscitation and bowel wrapping with cling film. Following a lecture on gastroschisis management and demonstration of delivery room stabilisation participants were divided into teams of five, given a scenario, asked to prepare equipment, allocate roles and work in sync to achieve effective resuscitation and stabilisation of the newborn. Pre and Post simulation feedback was collected and course adapted using a PDSA cycle. For continued learning a post-course video for delivery room management of gastroschisis was created and available for everyone to reference at any time in any location.

Mrs Maureen O'Dowd

Title of Presentation

Lights, Camera, Action..... NeoSim: An Interprofessional Neonatal Education Quality Improvement Project

Abstract Submission

NeoSim is an interprofessional neonatal educational team in Royal Jubilee Maternity Hospital, with an interest in neonatal simulation. Created with the aim of improving regional neonatal multiprofessional and interdisciplinary education, information sharing and team working in Northern Ireland. We were aware that our diverse, highly skilled, MDT had a wealth of knowledge at their disposal, we wanted to share this in an easily accessible format; a video learning network on YouTube, so that the information can be accessed by anyone, at any time, in any location. With the aim of increasing diversity and inclusion of neonatal clinical education throughout Northern Ireland as well as enhancing the knowledge and understanding of other professional roles. We surveyed members of the RJMS team for desired topics, to ensure the content was relevant. The categories range from equipment tutorials and practical procedures to disease management and neurodevelopmental care. Over 35 videos have been created to date. Each video is evidence based, peer reviewed and produced by a member of the RJMS MDT. Feedback surveys and idea submissions have enabled new videos to be created using a PDSA cycle. Through the surveys and YouTube analytics we could identify the most sought after topics, viewing location and how people discovered the resource. This increased the global reach of our YouTube site.

Ms Justine Parsons

Title of Presentation

Neonatal Organ Donation: Developing Guidelines to Inform Practice

Abstract Submission

Background and Aim/s: The need for transplants continues to exceed organ and tissue donor availability. More recent surgical advances have resulted in successful transplants using neonatal donors, and although organ donation in the neonate is still a reasonably rare and unique occurrence, improved education and timely referral will likely see a significant increase in future donations. (Stiers et al, 2015) Given the infrequent nature, it becomes crucial that there are supportive resources and programs to help educate and guide clinicians throughout a very sensitive process. The aim was, therefore, to develop and implement a comprehensive clinical practice guideline on organ donation in the NICU of John Hunter Children's Hospital, and associated education programs. Methods: In 2014, the NICU at John Hunter Children's Hospital participated in the first solid organ donation from a neonate in NSW. Later a 'Neonatal Organ Donation' special interest group was formed with interested nurses and medical staff attending. The group was chaired by the Nurse Educator and a Neonatologist who reviewed all neonatal deaths from preceding 5 years, and identified babies who met criteria for organ donation, although were not offered the opportunity. The group established that there had been over 20 missed opportunities for organ donation discussions. The next task was to develop a clinical practice guideline (CPG) to streamline the organ donation process, and ensure that procedures fit within accepted legal and ethical frameworks. Results: A guideline was finalised that included a clinical trigger to prompt staff to consider organ donation when an infant reached end of life. Education on organ donation was rolled out, and a group of staff undertook high level organ donation conversation training. Conclusion: A robust and comprehensive organ donation program could add a new source of donors, and increase the number of organs available for transplantation. Providing a sound framework and expert staff assists in improving outcomes for both donor families and recipients and offers long and short-term benefits.

Ms Justine Parsons

Title of Presentation

Sustainability in the NICU: How green can we be?

Abstract Submission

Sustainability in the NICU: How green can we be? Parsons, Justine¹ John Hunter Children's Hospital, Newcastle, Australia Email: justine.parsons@health.nsw.gov.au Problem: NSW Health has endorsed a plan to have net-zero emissions by 2050. Health services currently contribute approximately 7% of Australia's entire carbon footprint. As part of the acute care health system, NICU services have an important role to play in reducing waste, recycling products, reducing single-use items and reviewing routine testing. Methods: A team of interested staff from NICU JHCH formed the NICU Sustainability Action Group in 2020. The group is comprised of medical, nursing and allied health staff and meet bi-monthly to focus on identifying opportunities for improvement in environmental sustainability, and develop projects to reduce waste, improve recycling, and choose sustainable products. Results: The group, with assistance from HNE's Sustainability Officer, has developed a waste collection stream of single-use plastics, ensuring that single-use infant feeding bottles are collected, and sent for recycling into new plastic products. This initiative prevents 100K plastic bottles from going into landfill each year. Other projects underway are stainless steel collection for metal recycling, IV bag collections for PVC recycling and systematic sourcing and review of eco-friendly, sustainable infant nappies. Changing to biodegradable nappies has prevented 95000 non-biodegradable nappies from entering the landfill system. Implications for practice: Seeking out opportunities to improve product choice, develop waste reduction strategies, re-use and recycle items are all important ways that NICUs can lead the way in becoming more eco-friendly and contribute to the NSW health goals for net-zero emissions.

Christine Persson

Title of Presentation

Quality of couple-relationship and associated factors among parents of NICU-cared infants during the first year after birth

Abstract Submission

Parents of NICU-cared infants often experience stress and anxiety during hospitalization and are at higher risk for experiencing symptoms of trauma and depression (de Paula Eduardo et al., 2019; Flacking et al., 2012). NICU-related stress may lead to increased strain in the couple-relationship during the hospital stay (Hames et al., 2021; Edwards et al., 2016). However, long-term studies on couple-relationship are lacking in this population

Aim: To describe factors associated with NICU parents' quality of couple-relationship one year after birth. Further, we aimed to describe the trajectory in the couple-relationship quality the first year after birth, compared to parents of term and healthy infants. **Method:** A longitudinal comparative cohort design was used. Parents from six NICUs and four maternal units (n=364) in Sweden answered surveys three times during the infants first year. **Results:** One year after birth, NICU mothers rated the couple-relationship higher if they had better social support, and if the hospital stay was 7-14 days long. If both parents could not stay together at the NICU with the infant, the mothers rated the couple-relationship lower. Fathers rated the couple-relationship lower if they had symptoms of depression or if they had twins. There were no differences in the trajectory of the quality in the couple-relationship between parents of NICU-cared infants and parents of term/healthy infants. **Conclusion:** It must be seen important to improve support from family and friends, facilitate time and space for support, and enable togetherness during hospitalization, in order to strengthen the couple-relationship long-term. **References:** de Paula Eduardo JAF, de Rezende MG, Menezes PR, Del-Ben CM. Preterm birth as a risk factor for postpartum depression: A systematic review and meta-analysis. *J Affect Disord.* 2019;259:392-403. Flacking R, Lehtonen L, Thomson G, Axelin A, Ahlqvist S, Moran VH, et al. Closeness and separation in neonatal intensive care. *Acta Paediatr.* 2012;101(10):1032-7. Hames JL, Gasteiger C, McKenzie MR, Rowley S, Serlachius AS, Juth V, et al. Predictors of parental stress from admission to discharge in the neonatal special care unit. *Child Care Health Dev.* 2021;47(2):243-51. Edwards DM, Gibbons K, Gray PH. Relationship quality for mothers of very preterm infants. *Early Hum Dev.* 2016;92:13-8.

Mrs. Mette Petersen

Title of Presentation

From Expression Human milk to breastfeeding – an essential element in the journey to motherhood of mothers of prematurely born infants

Abstract Submission

Background: Breastfeeding and lactation pose an exceptional challenge for mothers of prematurely born infants. **Purpose:** To investigate the importance of lactation and examine the factors influencing lactation for mothers of premature infants. **Methods:** Conducted a qualitative exploratory study based on single, in-depth, semi-structured interviews with a purposeful sample of 16 mothers of premature infants admitted to the neonatal intensive care unit (NICU). The collected data underwent content analysis, and the study adhered to the Standards for Reporting Qualitative Research. **Findings:** The overarching theme in this study was "From expressing human milk to breastfeeding—an essential element in the journey to motherhood." This thematic construct is from the following three categories: the birth preparation time has been interrupted; expressing human milk is essential for lactation; and the motherhood journey encompasses breastfeeding. Furthermore, the analysis also revealed that the categories were impacted by initiating, performing, and maintaining lactation and were further influenced by inhibitors and promoters. **Implications for Practice:** To optimize the performance of milk expression and breastfeeding, efforts should focus on stimulating factors that promote these practices while eliminating inhibitory factors. The adoption of a "zero separation" and mother-infant couplet care in the NICU would be beneficial. Moreover, for mothers to sustain successful lactation, continuous and around-the-clock access to health professionals with specialized expertise in lactation and breastfeeding is imperative until the establishment of exclusive breastfeeding is well-established. **Implications for Research:** This study underscores the necessity to examine the mother-infant dyad rather than separately as mother and infant.

Mrs. Mette Petersen

Title of Presentation

Bridging the gap between healthcare sectors – facilitating the transition from NICU to the municipality and home for families with premature infants

Abstract Submission

Purpose: The transition from hospital to home can be challenging for parents of prematurely born infants. This ethnographic study aimed to describe a multidisciplinary and cross-sectoral discharge conference for families with premature infants transitioning from neonatal intensive care to municipal healthcare services. **Design and Methods:** An ethnographically/anthropologically inspired qualitative design was adopted. We conducted four participant observations of multidisciplinary and cross-sectoral discharge conferences and 12 semi-structured interviews with four neonatologists, four nurses, and four health visitors who had attended one of the conferences. Salient themes were generated by a two-part analysis consisting of a thematic analysis followed by Turner's ritual analysis. **Results:** This study illustrated how multidisciplinary and cross-sectoral discharge conferences improved the quality of care for premature infants and their families in their transition process which was perceived as complex. These conferences contributed to promoting a sense of coherence and continuity of care. The healthcare professionals experienced that this event may be characterized as a ritual, which created structures that promoted cross-sectoral cooperation and communication while increasing interdisciplinary knowledge sharing. Thus, the conferences triggered a sense that the participants were building bridges to unite healthcare sectors, ensuring a holistic and coordinated approach to meet the unique needs of the infants and their families. **Implications for Practice:** This study presented a unique holistic and family-centered approach to constructing multidisciplinary and cross-sectoral discharge conferences that seemed to underpin the quality of interdisciplinary and health-related knowledge sharing and establish a crucial starting point for early interventions, preventive measures, and health-promoting efforts.

Dr Julia Petty

Title of Presentation

Exploring neonatal nurses' and parents' understanding of the factors that both enhance and hinder communication and early interaction between preterm infants and their parents.

Abstract Submission

Infants born preterm are at high risk of developing speech, language and communication problems. Difficulties with communication can have a lifelong impact both educationally and with developing friendships. In the neonatal unit, bonding, attachment, and skin-to-skin care are often incorrectly referred to as methods that develop verbal communication. However, while these are essential precursor skills for supporting dyadic relationships, strategies necessary to foster linguistic skills are poorly understood and rarely implemented on neonatal units. Our qualitative, narrative inquiry-based study investigated parents' and nurses' understanding of factors that enhance or prevent the development of early communication and interaction between preterm infants and parents within the neonatal setting. A narrative interview approach was undertaken with eight parents and nine neonatal nurses to gain insight into enablers and challenges that underpin facilitative communication strategies with infants. Parents had limited knowledge of the core components of communication strategies beyond bonding, skin-to-skin care, direct talking to and singing with their infants. Inhibitors to developing communication with infants included mask-wearing, incubator care and conflicting advice. Nurses interpreted infant communication broadly including skin-to-skin care, information-giving and reassuring parents. Overall, parents received varying advice and support, on the neonatal unit and post-discharge. There is a need for clear, consistent, and culturally appropriate communication approaches that support parents to recognise their infants' communication cues with greater awareness of how to facilitate cue-based assessment and care. Since failure to enable parent-infant interactions may potentially mean delayed language development, the need for tailored parent-accessible resources is paramount.

Miss Sophie Proud

Title of Presentation

From a 24 weeker to a Neonatal Junior Sister- A Complete Neonatal Journey

Abstract Submission

In April 1996, I was born at 23+6 weeks weighing 650g. I am a surviving twin. I had a very stormy neonatal course, requiring high frequency, high PIPs of 32-35, numerous reintubations, sometimes needing CPR. I had 6 pneumothoraces, underwent ligation for a 3mm duct and cryotherapy for ROP. Despite this, I remained remarkably neurologically intact and was discharged 2 weeks after my due date, with severe BPD, on long term home oxygen of 1.5L. I was never readmitted once...with some help from Azithromycin and Prednisolone. I attended mainstream education and achieved A*-A at GCSE & A*AA at A Level. My mother was diagnosed with PTSD, and we were heavily involved in The Butterfly Project which examines how professionals communicate with parents, how the parents never forget what you do or say during this time and has been viewed worldwide. I graduated in 2017 with First Class Honours and I now have my dream job. I returned as a qualified nurse to where I began my life, alongside my sister Aimee, who was a Neonatal Sister in Transport. In February 2023, a lung function test showed no evidence of lung disease despite high frequency, high pressures long term home oxygen and a total lung capacity of 98%... I'll take that! Looking to the future almost 3 decades later... there are several aspects that as a professional working within neonatology and indeed an ex 24 weeker that I think should be examined further. Vocal cord weakness affecting voice quality- Is treating with vocal cord injections worthwhile? Should intervention happen sooner? I co-authored an article in Infant, titled 'Dysphonia in preterm infants' (October 2023) which concluded that more awareness is needed an earlier intervention may be more beneficial- the importance of sub specialities such as speech and language, ENT is not undermined. BPD- Is BPD as chronic as we once thought? Should we be more optimistic with parents? Having been told throughout my entire childhood that my lungs would never fully recover, and I'd never have a normal lung function, to now, aged 27 with a lung capacity of 98%. PERIScope- How does prematurity affect the identity of adults born preterm? Disability criteria- How should we quantify disability- I am classed as moderately disabled due to deafness & needing contact lenses

Miss Sophie Proud

Title of Presentation

From A 24 weeker to a Neonatal Junior Sister- A Complete Neonatal Journey Please note- I have submitted this previously, but I received no confirmation, so I am unsure if it was submitted correctly.

Abstract Submission

In April 1996, I was born at 23+6 days weighing 650g. I am a surviving twin. I had a very stormy neonatal course, requiring high frequency, high PIPs of 32-35, numerous reintubations, sometimes needing CPR. I had 6 pneumothoraces, underwent ligation for a 3mm duct and cryotherapy for ROP. Despite this, I remained remarkably neurologically intact and was discharged 2 weeks after my due date, with severe BPD on long term home oxygen of 1.5L. I was never readmitted once...with some help from Azithromycin and Prednisolone. My outcome physically and neurologically is far, far from what was predicted. I graduated in 2017 with First Class Honours and I now have my dream job. I returned as a qualified nurse to where I began my life, alongside my sister Aimee, who was a Neonatal Sister in Transport. In February 2023, a lung function test showed no evidence of lung disease and a total lung capacity of 98%... I'll take that! Looking to the future- almost 3 decades later... • Dysphonia following preterm birth- I recently co-authored a journal article published in Infant titled 'Dysphonia following Preterm birth', which considers the fact that it is largely overlooked and more awareness is needed in order for intervention to occur sooner. • BPD- Is BPD as chronic as we once thought? Should we be more optimistic with parents? • PERIScope- How does prematurity affect the identity of adults born preterm? • Disability criteria- How should we quantify disability- I am classed as 'moderately disabled' purely due to deafness & needing contact lenses

Miss Débora Querido

Title of Presentation

Project "O meu primeiro mimo" ("My first gift") - Promote bonding to newborns in critical conditions before hospital transfer

Abstract Submission

The admission and transfer of a newborn to a neonatal intensive care unit of a referral hospital immediately after birth is a stressful experience for newborns and families (Yui & October, 2020). The bonding of parents to the hospitalized newborn is beneficial, regardless of newborn survival (Maastrup et al., 2018). The visit of the parents to the neonatology unit, before transferring the newborn to another hospital, has a great impact on reestablishing the bonding process (Yui & October, 2020). Even parents who accompany the newborn during the hospitalization and transfer process feel lonely, insecure, anxious and detached from their child (Aagaard et al., 2018). Given the importance of promoting bonding in these situations, a literature review was carried out to support the creation and implementation of the project. "O meu primeiro mimo" ("My first gift") project aims to promote the bonding of newborns with their parents, when a newborn with a critical illness needs to be transferred to another hospital unit during the early neonatal period. The gift consists of creating a set of the newborn's wishes to be offered to their parents, promoting the connection between them. In these highly complex situations involving the newborn, visits, physical contact and touch should always be promoted, as well as the presence of the parents before the transfer. Sometimes, the presence of parents is impossible in the window of time before the transfer, thus imposing the need to offer the parents the newborn's belongings.

Ms Elissa Remmer

Title of Presentation

The Design and Implementation of a Family-Driven Feeding Quality Improvement Project

Abstract Submission

Background: Infant-Driven Feeding programs have been shown to result in earlier attainment of full oral feeds. In North America, these programs use nursing assessment of infant cues, and parental assessment has not traditionally been included. Project Aims and Outcomes: With parent partners, we designed and are implementing a Family-Driven Feeding Program in which parents assess their infant's readiness and quality of oral feeds in partnership with their infant's nurse. We hypothesize that targeting family engagement will improve oral feeding outcomes. Methodology: A Family-Driven Feeding scale to assess infant feeding cues and feeding quality has been adapted from the Cornell Infant-Driven Feeding tool with parent and multidisciplinary input. Educational tools, including an educational video, are being developed to support the implementation of the scale for parents and nurses. To assess the clinical impact of the intervention, we will examine age at achievement of full oral feeds, age at oral feed initiation, parental self-efficacy and satisfaction, and breastfeeding rates at discharge. We will use a pre-post design and compare 80 infants in the intervention group with 80 propensity-matched infants in a pre-intervention group. We will also examine feasibility and acceptability of the intervention among parents and nurses. Project Expected Impact: A Family-Driven Feeding Program has the potential to improve the care of infants in the NICU by empowering parents and improving feeding outcomes.

Ms. & Miss Gessica & Irene Rice & Monje Alcazar

Title of Presentation

Driving innovation within the Southwest Neonatal Advice and retrieval (SoNAR) team using a family-centred approach – Application of the parent perspective and promoting ‘zero-separation’ transfers using Kangaroo care.

Abstract Submission

In the past two decades, neonatal care has undergone progressive regionalisation to consolidate specialised resources and staff expertise to improve outcomes. This has led to the implementation and development of neonatal transport services to facilitate safe transfers of infants between neonatal units dependant on risk-appropriate care [1]. Research indicates that parents associate these transfers with feelings of distress and anxiety, even for stable repatriations [2]. Such transfers may be connected to a disconcerting experience in which they are separated from their infant. Within the SoNAR transport team, interventions are being explored to reduce parental anxiety, drive service improvement and maintain closeness: - Collaboration with parent representatives within our neonatal network has integrated ‘the parental voice’ within our Neonatal transport service, to create and cultivate parental resources and utilise feedback to guide family-centred service developments and improve the parental experience. - Physical and emotional closeness, parental involvement and patient comfort have therefore been key drivers in exploring the use of Kangaroo care during transport. Implementation of this new innovative practice within the UK has promoted a zero-separation culture, supporting a developmental care approach whilst improving clinical stability of infants and reducing parental anxiety during transfer. These service improvement projects have increased parental and staff satisfaction and driven further advances in use of kangaroo care to a wider population of infants during transfer, ultimately improving outcomes for infants and their families within our care.

References 1. Handley, S.C. and Lorch, S.A., 2022. Regionalization of neonatal care: benefits, barriers, and beyond. *Journal of Perinatology*, 42(6), pp.835-838.ces: 2. Mason L, Marufu TC, Warren I, et al. Interventions for supporting parents of infants requiring neonatal inter-hospital transport: A systematic review. *Nurs Crit Care*. 2023; 1-14. doi:10.1111/nicc.12922

Mr. Irene Rød

Title of Presentation

An overview of the master's program in advanced clinical neonatal nursing,

Abstract Submission

This overview of the master's program in advanced clinical neonatal nursing emphasizes its role in enabling nurses to deliver high-quality care to newborns and their families. The master's program is designed to equip students with advanced knowledge and skills tailored to the unique medical requirements of infants in the neonatal period. The curriculum includes theoretical concepts, clinical experiences, and research components. Topics cover specialized neonatal care, physiology and pathophysiology, pharmacology, ethical considerations, and neonatal management. This gives students a strong foundation for developing a deep understanding of neonatal nursing practice and the need for advanced care in neonatal intensive units (NICUs) and other neonatal settings. Collaborative learning opportunities with healthcare professionals prepare students to work synergistically within multidisciplinary neonatal healthcare teams. The program encourages research and evidence-based practice, promoting critical thinking and the integration of new knowledge into clinical decision-making processes. In addition to academic pursuits, the master's program offers students practical experiences in renowned healthcare facilities for the practical application of classroom knowledge and further development of the skills necessary for excellence in neonatal care. The master's program in advanced clinical neonatal nursing is a comprehensive educational path for nurses seeking specialized competence in this highly specialized field. Combining theoretical knowledge, clinical experience and interprofessional collaboration, nurses are equipped to provide exceptional care and support to neonatal patients and their families, ultimately contributing to improved neonatal outcomes and overall healthcare quality.

Ms EVERLYN SHAVANGA

Title of Presentation

A Case Report of Gastric Perforation in a Premature Neonate

Abstract Submission

A Case Report of Gastric Perforation in a Premature Neonate Neonatal Gastric perforation (NGP) is a rare condition. Although there have been improvements in neonatal intensive care, this condition continues to have a poor prognosis with high mortality rate. Delay in diagnosis and treatment may have catastrophic consequences. Aim: The purpose of this study is to review the presentation, imaging findings and management of gastric perforation in a premature neonate. Study: A prospective case study was done on a 31-week-old premature neonate born via CS to a pre-eclamptic mother. The neonate presented to the ICU as a referral at day 4 of life with severe respiratory distress, hematemesis, convulsions, electrolytes imbalance and abdominal distention. A diagnosis of pneumoperitoneum was made. Exploratory laparotomy confirmed the diagnosis of gastric perforation and repair was done. A follow up on the care of this rare case was made through out the hospitalization till discharge. Conclusion: Early detection and prompt surgical intervention are essential. In a neonate especially preterm or low birth weight having progressive abdominal distension and pneumoperitoneum on X-ray during the first week of life, a diagnosis of NGP should be considered. The health providers dealing with neonates should promptly consult a paediatric surgeon. Rapid management including fluid/electrolytes replacement, antibiotics, parenteral nutrition and urgent surgical intervention is recommended. Bile chart is a vital tool in monitoring these babies. It is anticipated that with this approach, neonatal mortality rates and length of hospital stay will decrease.

DR Mahala Saunders

Title of Presentation

DO CULTURAL COMPETENCE, QUALITY OF DISCHARGE TEACHING AND SELECTED DEMOGRAPHICS PREDICT DISCHARGE READINESS? NEONATAL NURSE PRACTITIONER PERSPECTIVE.

Abstract Submission

Abstract Background: The cultural competence, quality of discharge teaching and selected demographics of the neonatal nurse practitioner (NNP) should have a positive impact on discharge readiness of infants from neonatal intensive care units (NICUs) in Florida. Ensuring families are prepared for discharge is an important factor in post-discharge follow-up outcomes. **Purpose:** The purpose of this quantitative study was to determine whether cultural competence, quality of discharge teaching, and selected demographics of the NNP predicted discharge readiness of infants and families from NICUs in Florida. **Theoretical Framework:** This study was guided using the Campinha-Bacote process of cultural competence in the delivery of healthcare services model. **Methods:** A cross-sectional, descriptive, partial correlation, and predictive study design was used to investigate whether cultural competence, quality of discharge teaching, and selected demographics of the neonatal nurse practitioner (NNP) predicted discharge readiness of infants and families from NICUs in Florida. A convenience sample of NNPs was recruited, and data collection was done via electronic surveys. Instruments included a demographic questionnaire, the Self-Assessment of the Perceived Level of Cultural Competence Scale (SAPLCCS), the Quality of Discharge Teaching Scale-Delivery subscale, and the Readiness for Hospital Discharge Scale Parent-Nurse Short Form (PedRN-short form Results: Descriptive, partial correlation, and multiple regression analyses were used for the three hypotheses in this study. Cultural competence and discharge readiness had no statistical significance ($r(13.2) = -0.005, p = 0.98$). Statistically significant findings revealed that the quality of discharge teaching has a significant positive relationship with discharge teaching ($r_{12.3} = 0.53, p = 0.001$). The hypothesis was accepted. Demographics of the NNP did not impact discharge readiness ($F(9.36) = 0.663, P = .736$). **Conclusions:** Discharge readiness is a key element to the discharge process that allows a positive transition from the NICU to home. Neonatal Nurse Practitioners can bridge the gap to ensure timely discharge. Cultural competence and the quality of discharge teaching investigated from a qualitative analysis may be warranted in this population.

Dr. Elizabeth Sharpe

Title of Presentation

Intravenous Therapy & Neonatal Vascular Access – What nurses need to know about new standards and guidelines to inform global practices

Abstract Submission

The administration of intravenous therapy and care of infants with vascular access devices is a cornerstone of neonatal intensive nursing care around the world. The Peripheral Intravenous (PIV) device is the most frequently used device for administration of intravenous solutions and medications in the NICU. Though its utilization is commonplace, this first-line modality is not without risk or complications with over a third of devices failing (Marsh et al., 2024). There can be great variation in individual practices, level of training, nursing staffing, available resources, supplies and patient-specific and environmental circumstances across different centers and countries. Neonatal nurses need to be informed of the most current standards and guidelines for administration of intravenous solutions and medications, assessment and monitoring for complications in patients with this first-line device. This presentation will highlight the most recent literature and standards from authoritative organizations advocating for best practices in vascular access including the Infusion Nurses Society (INS), Association for Vascular Access (AVA) and the European Foundation for the Care of Newborn Infants (EFCNI). This presentation will equip nurses with the most salient information to apply at bedside and enable nurses to incorporate best practices for delivery of optimal care, decreased complications and positive outcomes.

Mrs Temitope Sholanke

Title of Presentation

Virtual tours of 13 neonatal units and the neonatal transport service in Kent, Surrey, and Sussex neonatal Operational Delivery Network (KSS ODN).

Abstract Submission

The virtual tours are designed to guide parents, families, and caregivers through the neonatal unit at each hospital. Users can easily navigate the tours themselves or click on the play button for a guided virtual tour experience. They can also stop and start the tour at any time to review specific areas of the neonatal unit in more detail. Information tags have been added to explain the different areas of the neonatal unit and the equipment. Additionally, the tours contain information about the neonatal transport service, including a tour of the dedicated ambulance and transport incubator. The virtual tours are a platform for families to see where their baby is being admitted to or transferred to. This may alleviate some parental anxiety for families who do or could possibly require neonatal care. They offer an opportunity for siblings, friends, and families to visualise the neonatal unit. The tours have been co-produced with families, working with the Parent Advisory Group, local neonatal staff, Trust communication teams, Maternity and Neonatal Voices Partnerships, Local Maternity and Neonatal Systems, and KSS ODN. Parent quote “The first time we were transferred, I had no idea where I was going. I had never heard of the hospital. It would have made a huge difference to be able to watch a video of the unit that I was going to. It would have resolved some of my anxiety, made me feel like I had more control in what felt like a very out-of-control situation”.

M.E.R. Marlies Smorenburg

Title of Presentation

Partnership in exchanging knowledge and expertise among Dutch nurses caring for extremely preterm infants on a national level

Abstract Submission

Background and aims In the Netherlands, nine Level III/IV neonatal care units (NICU) exist. NICU nurses collaborate as nonprofit working group for extreme premature infants, aiming to establish consistency in the care provided to these preterm infants and their families. By sharing knowledge and expertise best practices or evidence based knowledge can be used in clinical settings nationwide. **Methods** The group meets biannually to share data and exchange experiences. Furthermore, it utilizes an application for exchanging information among participants of this group, including questions regarding the care of extremely premature infants. Additionally, a digital shared platform has been created to allow rapid access and availability of data and documents for all participants. **Results** • Education on caring for extremely premature infants is now standardized across the country and part of the existing neonatal nursing training program. • A protocol for skin care, based on literature and best available evidence, is developed and almost ready to implement across all neonatal centers. • A questionnaire was sent to the Dutch NICU's to determine priorities for evaluating and improving care. **Conclusion** • Partnership in exchanging knowledge and expertise among Dutch nurses caring for extremely preterm infants on a national level has benefits. Equalizing evidence based care at a national level unifies the different NICU's to improve daily care for extremely premature infants and their families. • **Goals for 2024:** together improving heat management and respiratory support in caring for extremely premature infants. How nurses can participate in counseling for threatened premature birth and added value for the parents

Mrs. Grace Tahuna Soko

Title of Presentation

Enhancing Neonatal Care Delivery through Mentorship in Malawi

Abstract Submission

Introduction: The quality of neonatal care is contingent upon healthcare staff possessing practical skills, confidence, and a sense of responsibility. Despite prior Care of the Infant and newborn (COIN) training, knowledge and skill gaps in CPAP utilization, neonatal resuscitation, jaundice management, and hypothermia prevention persist in level 2 newborn units in Malawi. This paper explores the impact of mentorship programs on enhanced staff clinical skills, confidence, and overall neonatal outcomes.

Materials and Methods: Data is derived from mentorship visits conducted at various healthcare facilities, including Mangochi District Hospital, Zomba Central Hospital, Bwaila Maternity Unit, Kamuzu Central Hospital, Kasungu District Hospital, and Thyolo District Hospital. Additional insights are gained from off-site mentorship programs involving doctors and nurses from multiple district hospitals. Data on the outcome of interventions were derived from the NEST360 implementation tracker from June 2023 – Nov 2023. All mentorship sessions were conducted by selected and trained mentors who also work in a level 2 newborn unit.

Results: Staff in all the facilities involved expressed positive feedback for the mentorship experiences and wanted to have more sessions to cement learning. The mentored facilities recorded a 12 – 100% increase in the utilization of prophylactic CPAP for newborns weighing 1000 – 1499 grams and a 25 – 47% increase in the prevention of hypothermia at admission. Staff shortage, staff rotation, poor facility and hospital leadership continue to be a challenge to effective mentorship.

Conclusion: The continuous implementation and refinement of mentorship programs are crucial for sustaining positive outcomes in neonatal care delivery.

A/Prof Kaye Spence

Title of Presentation

Reflection as a Catalyst for Learning: Insights from the FINE 2 Program

Abstract Submission

The Family and Infant Neurodevelopmental Education Foundation – Level 2 (FINE 2) places paramount importance on nurturing student learning through meticulous observations complemented by structured reflection. Within the neonatal unit, mentors adeptly steer students towards introspection about specific situations involving infants and their families. Reflective writing serves as a transformative tool, empowering students to amalgamate insights, foster critical thinking, and crystallize their thoughts. This introspective process not only facilitates a holistic perspective on experiences but can build the resilience they need to cope with the emotional burden of work in newborn care. It also cultivates skills crucial for future proficiency. Historically, reflection has been a linchpin in learning paradigms, enabling individuals to dissect events, analyse activities, and assimilate knowledge. In an intensive care environment with a highly technical bias, the value of reflective practice is often overlooked. Engaging in reflective practice amplifies comprehension, bolsters subject mastery, and demystifies intricate subject matter. In the context of FINE 2, reflection manifests in two distinct forms: • Reflection-in-action: An immediate introspective engagement during hands-on experiences, requires a higher level of self-awareness and the ability to reflect on actions in the moment, as the activity is taking place. • Reflection-on-action: This retrospective approach empowers students to re-evaluate observed events, derive insights, and devise strategies for enhanced care provision. Drawing from the FINE 2 Program, this presentation illuminates the thoughtful impact of reflection. By spotlighting participant experiences, we will showcase how reflection emerges as a potent pedagogical strategy, transcending the boundaries of traditional and online learning realms.

Mrs Veronica Starke

Title of Presentation

Attitudes and experiences among Swedish NICU nurses regarding skin-to-skin care of infants born in 22-23 weeks.

Abstract Submission

It is very little investigated about why staff hesitate to initiate skin-to-skin care (SSC) early after birth in the tiniest preterm infant population, those born in gestation weeks (GW) 22-23. The aim of this study was to investigate the attitudes and experiences of neonatal nurse's towards early SSC for infants born in GW 22-23, using an exploratory and descriptive approach. A Webb survey was sent to all nurses at the six Swedish units that are caring for infants born <24 GW in March to May 2022. Descriptive statistics and qualitative content analysis were used to analyze the data. The response rate was 258/547 (47%). This study shows a variation in nurse's attitudes and experiences, ranging from see SSC as an integral part of the infant's care, to be difficult and close on impossible. It is visualized in themes of facilitators and challenges for SSC. Well-implemented, SSC promoting, guidelines were expressed as a facilitator for SSC. Challenges was the barriers; lack of guidelines, knowledge gaps and the lack of scientific evidence about the safety for infants born in GW 22-23. By sharing knowledge about facilitating practical aspects in the care of these tiny infants, NICU care can be developed and improved.

Mrs Veronica Starke

Title of Presentation

Being parents of extremely preterm children, from a long-term perspective: A qualitative study of parents' experiences

Abstract Submission

In recent decades, modern neonatal intensive care has improved, increasing the survival of extremely preterm children. Few studies have examined the experiences of parents of extremely preterm children from a long-term perspective. The aim was to describe parents' experiences of parenting extremely preterm children during their childhood and transition to adulthood. A qualitative interview study with a descriptive design. Thirteen parents of eleven children born at 24 gestational weeks in Sweden, 1990–1992, participated in individual semi-structured interviews. Data were analyzed using qualitative reflexive thematic analysis. Five themes forming a timeline were created in the analytic process: parenthood, at the NICU, young childhood, adolescence, and adulthood. Various aspects affecting parenthood were described throughout the timeline, and occasionally the parents experienced difficulties dealing with their children's special physical and/or mental needs. Today, some families have established a functioning situation despite their children's physical and/or mental difficulties, while some still struggle with their children's everyday life. Having an extremely preterm family member profoundly affects the whole family for various lengths of time. Parents expressed a need for support from both healthcare and school throughout their children's childhood and in their transition to adulthood, although the need varies between parent-child pairs. By studying the parents' experiences, their need for support can be further recognized and understood, and developed and improved accordingly.

Ms Francesca Storey

Title of Presentation

Non-Indigenous researchers working to advance Indigenous neonatal health equity

Abstract Submission

Marked disparities in neonatal and maternal outcomes exist between Māori (the Indigenous peoples of Aotearoa New Zealand) and Europeans. Research partnerships with iwi (tribal-kin groups) have formed in response to invitations to address the inequities. Led by Māori, involving non-Māori researchers ('allies') this includes the implementation of; an augmented maternal care pathway (He Korowai Manaaki); an iwi-governed antenatal hub service addressing their priorities (Te Puna Wairua); pēpi (baby) care packages to enhance neurodevelopment if impacted by methamphetamine (Whanake te Kura). Methodologies implemented within Kaupapa Māori (by, with, and for Māori) research for this partnership work uphold the mana (status) of Māori during the research process, in reporting of findings, and in actions and advocacy that follow. Similar inequitable health outcomes persist in other high-resourced countries with a history of European settlement. Growing collaborations and engagements between researchers and clinicians involved in Indigenous-led perinatal-related work in Australia, Canada, and the US to respond to such inequities involves non-Indigenous allies. This doctoral study examines the skills, roles, and relationship factors of allies identified by Indigenous Elders and Knowledge Holders across these countries described to 'work successfully, in a way that's acceptable to Māori and other Indigenous peoples, and that may move beyond traditional ways of researching.' Preliminary themes and findings from qualitative data collected through interviews with up to twenty participants relating to their experiences and factors will be reported. This research will build narrative and provide insights that may be of relevance for non-Indigenous researchers and clinicians in other countries.

Bente Silnes Tandberg

Title of Presentation

The PosiFeed Neo group benchmark of feeding strategies in Neonatal Care

Abstract Submission

PosiFeed Neo is multidisciplinary network of clinicians, researchers, and parents who aims to share knowledge and experiences and to conduct research. In this first study, the aim was to describe current clinical practices and strategies on supportive feeding in neonatal units across Europe. Method Through discussions and Delphi rounds, a questionnaire for neonatal units was developed. The questionnaire examines cue-based feeding practices and factors known to facilitate breastfeeding preterm infant, but also barriers for breastfeeding, in addition to guidelines and the current practices/tools to support feeding. The questionnaire was pilot tested in April 2023 in 28 European units from 11 countries and presented to an expert group. This led to major revisions through new Delphi rounds. The final version of a multi-sectional, multi-national online survey was launched via snowball sampling. Results The survey was answered by 110 units across 17 European countries in October-November 2023. At the conference we will present results about the units' supportive breastfeeding strategies and practices, among those, early skin to skin contact, guidance sleep-awake stages and infant feeding cues, health care professionals' assessment of the infants' feeding cues, use of scheduled feeding, use of instruments or scales in addition to breastfeeding support post discharge. Preliminary Conclusion European NICU units employ diverse strategies to foster positive feeding experiences for preterm infants. While some measures, notably skin-to-skin contact, are widely embraced, variations exist, underscoring the necessity for standardized practices in neonatal care.

mrs Lene Tandle Lyngstad

Title of Presentation

Nurse-parents Communication and interaction in Single-family Room NICUs in Norway

Abstract Submission

The growing trend toward Single-Family Room (SFR) Neonatal Intensive Care Unit (NICU) design and continuous parental presence is driven by the awareness of how important the sensory environment is to the preterm infants' brain growth and early developmental needs. As well as a desire to provide environments that support and encourage parental participation. The SFR requires a substantial change in NICU culture and interaction with parents. Lack of support and poor communication from nurses is perceived by parents as an obstacle for involvement in care. Interaction with parents in SFR is reported as challenging for the nurses. The project provides important knowledge of the parent-nurse interaction in SFR and in what way the NICU culture influences the nurse-parent partnership. The overall aim of this study is to obtain in-depth knowledge of the communication and interaction between nurses and parents of preterm infants in SFR NICUs by using video-recording. The study has three sub-studies: The aim in study I is to explore the interaction between the parents and nurses during guided interventions in SFR in three different phases of the NICU stay. In study II the aim is to explore and get a deeper understanding of the parents' experience of interaction with the nurses in SFR, through in-depth interviews. In study III, the aim is to explore how the nurses experience the interaction with the parents in SFR and how culture influences the parent-nurse interaction through stimulated-recall interview with nurses.

Mrs. Fauste UWINGABIRE

Title of Presentation

Neonatal Nursing Orientation Programme development and pilot phase evaluation findings

Abstract Submission

Background Rwanda progressed well in reducing neonatal mortality rate (NMR) from 44 in 2000 to 20 deaths/ 1000 live births in 2015. However, progress stalled at 19 deaths/ 1000 live births in 2020. Objective To enhance evidence-based neonatal nursing care knowledge and clinical skills through a competency-based orientation program to improve the quality of care for small and sick newborns and contribute towards reducing NMR. This initiative was innovative for NCUs within Rwanda. Methods The Neonatal Nursing Orientation Programme (NNOP) was developed following the five areas of the COINN Competency Framework. The NNOP provided a structured and progressive learning format, linking theory to practice, and was piloted in 10 NCUs in 2023. Baseline and Endline knowledge, and continuous competency assessment tools plus feedback surveys were developed to evaluate the impact and feasibility of the NNOP. Results In summary, 96 NCU nurses completed the NNOP and all assessments. The minimum average score from Baseline to Endline Assessment improved from 38 to 64% while the average score improved from 70 to 91%. These results were similar across different levels of NCU, professional background and qualifications of NCU nurses. The greatest positive change was seen in the least experienced NCU nurses. It is too soon to see a reduction in NMR due to improved quality of care. Feedback survey results supported NNOP implementation and sustainability. Discussion The pilot phase findings and feedback strongly indicate the NNOP is applicable to all NCUs in Rwanda. The Government is currently advancing NNOP validation and scale-up.

Dr. Winifred Ukoha

Title of Presentation

THE EFFECTS OF MATERNAL CARDIAC DISEASE ON THE NEONATE: A SYSTEMATIC SCOPING REVIEW

Abstract Submission

Cardiac disease poses a great risk of maternal and child mortality and morbidity. These risks are increased in developing countries as most of these problems are undiagnosed early in pregnancy. Pregnancy in women with heart disease requires careful planning and coordination of antenatal care by a multidisciplinary team, to optimize pregnancy outcomes. A scoping review was employed following the methodological framework by Arksey and O'Malley. An electronic literature search was conducted on PubMed, Google Scholar, Web of Science, Scopus, and the EBSCOhost platform. Abstract and full article screening was conducted by four independent reviewers on forty-seven articles. A disparity in the incidence of neonatal morbidity in centers from developing and developed countries was reported. The rate of fetal complications ranges from 21% to 47%. Adverse fetal and neonatal events were higher in women with serious cardiac events such as coronary atherosclerosis and structural congenital heart disease. compared to those without (62% versus 29%). The most common fetal outcome among the reviewed articles was prematurity, with an increased risk in women with super-imposed preeclampsia, heart failure, and complex anomalies of atrioventricular connection. Other common fetal outcomes were intrauterine growth restriction, small for gestational age, stillbirths, fetal anomalies such as congenital heart disease, fetal warfarin syndrome, genetic disorders, and fetal and neonatal mortality which was higher in women with heart failure and mechanical valves. To avert most neonatal complications, there is a need for proper preconception care assessment of women with cardiac conditions. Women with diagnosed cardiac conditions are a priority for preconception care, yet the services are non-existent or underutilized in many countries.

Dr Henriette Van Zanten

Title of Presentation

Prediction of the position of the nasogastric tube in neonates admitted on a neonatal intensive care unit; a comparison of two methods

Abstract Submission

Aim: To describe the number of appropriate positions of orogastric/nasogastric (OG/NG) tubes according to the age-related-height-based (ARHB) measurement compared with the used nose-ear-midway to the umbilicus method (NEMU) aiming for a decrease in tubes placed too deeply and no significance in tubes placed too highly. **Methods:** A prospective observational multi-centre study was conducted in three level III NICU's. All neonates requiring OG/NG tube were eligible. NEMU was used to determine the insertion length for OG/NG tubes. The position according to the ARHB was calculated using equations appropriate for the type of tube. Radiological assessment was used to objectify the position of the OG/NG tubes. **Results:** In 475 neonates the position of the OG/NG was radiologically visible. The percentage of correctly placed tubes using ARHB compared with NEMU was 44% vs 33.9%($p=0.001$). A decrease in the number of tubes inserted too deeply according to ARHB was observed 24.6% vs 49.1% with NEMU ($p<0.001$). A significant increase in too highly placed tubes was observed with ARHB compared to NEMU 31.4% vs 17%($p<0.001$). **Conclusion:** The significant increase in too highly placed tubes, according to ARHB was undesirable. The method used for calculating the insertion length of the OG/NG tubes in neonates remains unclear.

MS Susan Vaughan

Title of Presentation

Early Detection of Cerebral Palsy in Ireland- Network Implementation

Abstract Submission

In Ireland the Early diagnosis of Cerebral Palsy is critical to allow evidence based interventions when plasticity is greatest, currently in Ireland the mean age of CP diagnosis is >2 years of age. In 2017 international guidelines for the early detection of CP were published.(1). These guidelines were implemented across a wide US network and the age of CP diagnosis was reduced to < 9.5 months of age (2). Our study aim is to implement these international guidelines across a network of Tertiary NICU High risk infants follow up programs in Ireland and reduce the age of CP diagnosis to less than 12 months of age. Method: This is a three year implementation research program, involving the collaborative national network across all tertiary NICU. The assessments include the General Movements Assessments (GM), The Hammersmith Neurologic Examination (HINE) and a standardized assessment of motor function (Alberta infant motor scale), performed and repeated at specific time points. The babies included are preterm < 32 weeks gestation, or birth weight < 1.5kg, neonatal encephalopathy or significant neurological risk factors (based on neuro-imaging findings or persistently abnormal neurological exam). The primary outcome is age of CP Diagnosis, other data measured will be clinic no-shows and parents perception of the diagnosis visit. The collaboration network across the four Tertiary NICU HRIF follow-up programs in Ireland was established in 2022. The enrollment of infants into the standardized assessment pathways went live in May 2023.

MS JEMIMA WANJIRU

Title of Presentation

Maternal factors associated with the practice of essential newborn care components among post natal mothers attending Kenyatta National Hospital

Abstract Submission

The World Health Organization emphasizes the need to continuously improve care practices at birth in order to decrease neonatal morbidity and mortality. Despite sensitization of mothers regarding the importance of essential new-born care, common infections such as diarrhoea, sepsis and pneumonia of neonates persist at Kenyatta National Hospital (KNH). The primary purpose of this study was to assess maternal factors associated with essential new-born care practices among postnatal mothers. Specifically, the study sought to assess maternal factors associated with essential new-born practices comprising breastfeeding, thermoregulation and hygiene practices among postnatal mothers. This was an analytical cross-sectional study design utilising a triangulation approach. The study population comprised mothers attending post-natal clinic and paediatrics emergency unit at KNH. Slovin's Formula was used to calculate a sample size of 200 mothers. Systematic sampling was used to select eligible subjects. Data collection was done using a semi-structured interviewer-administered questionnaire, an observation guide and a focused group discussion guide. Uni variate data analysis for the study variables was conducted using descriptive statistics comprising frequencies and percentages. Analysis was conducted with the help of SPSS version 25.0. Qualitative data was transcribed and major themes discussed along with quantitative findings. The study found that 59% of the respondents in the study had poor new-born care practices. Chi-square tests showed that age ($p < 0.001$), education ($p < 0.001$), parity ($p = 0.031$), ANC attendance and ANC initiation ($p = 0.021$) were all significant. Age ($p = 0.043$), parity ($p < 0.001$) and ANC attendance ($p < 0.001$) remained significant in the regression analysis. Multivariate analysis revealed that, education level, (AOR = 3.87, 95%CI: 1.31 – 10.51, $p = 0.010$), age (≥ 30 years), (AOR = 2.52, 95%CI: 1.41 – 8.71, $p = 0.005$) and ANC attendance (AOR = 2.01, 95%CI: 1.01 - 6.43, $p = 0.033$) were independent predictors of essential new-born care practices. The study concluded that there is an association between maternal factors and new-born care practices. The research therefore recommended that health education given to mothers in antenatal care should emphasize that mothers initiate breastfeeding immediately after birth. Health education provided in the antenatal care clinic should highly focus on sensitizing mothers on hygiene practices.

Ms. Ruth Wagathu

Title of Presentation

Birth asphyxia: associated risk factors and experiences of affected mothers at Pumwani Maternity Hospital

Abstract Submission

Birth asphyxia is defined as failure of a neonate to spontaneously begin and maintain breathing after delivery. It is one of the leading causes of neonatal mortality and morbidity in developing countries. In Kenya, birth asphyxia is responsible for 29% of neonatal mortality. Despite guidelines and protocols addressing birth asphyxia and other neonatal disorders being in place, neonatal mortality rate is still unacceptably high in Kenya. The aim of this study is to find out the prevalence of birth asphyxia, explore the associated risk factors, and narrate the experiences of affected mothers at Pumwani Maternity Hospital. This will be a hospital-based mixed methods study, employing case-control and phenomenological study designs for quantitative and qualitative approaches respectively. Cases will be newborns with an APGAR score of less than 7 at the fifth minute, while controls will be newborns with an APGAR score of ≥ 7 at 5 minutes after birth. 270 cases and 270 controls will be recruited. For qualitative approach, data will be collected till saturation. Consecutive and purposeful sampling will be utilized. A pretested researcher administered questionnaire, interview guide and tape recorder will be used to collect data. Quantitative data will undergo descriptive and inferential analysis, while qualitative data will be coded and presented in themes. Ethical approval will be sought from ISERC, approval from NACOSTI and consent from mothers. Findings will be disseminated through meetings with stakeholders, conferences, and publications.

Ms Jemima Wanjiru

Title of Presentation

Abstract Submission

I will attach

Mr. Conrad Wanyama

Title of Presentation

Understanding the practice of task nursing in neonatal care service delivery in high-volume newborn units in Kenya

Abstract Submission

Task nursing is a model of care where nursing care is organized and provided to patients through nursing task assignment, task execution, and evaluation. This model is mainly as a cost-containment strategy in low-middle-income countries where nursing staff shortage is acute and nursing tasks need to be accomplished efficiently. However, it has been associated with poor patient outcomes (high incidences of missed nursing care) and poor nursing staff outcomes such as burnout. This exploratory study examined the delivery, variation, adaptation, and evolution of nursing care models, particularly task nursing in high-volume NBUs in Kenya. Qualitative data were collected through non-participant observations of NBUs, interviews, and focus group discussions among clinicians, nurses and nursing students. All data relevant to nursing models of care and the organisation and philosophy of nursing education and practice was identified, extracted, and analysed thematically. This study shows how task nursing is prevalent in routine acute care in NBUs, with adaptations influenced by complex context-specific factors such as nursing staff shortage, NBU layout, and local NBU nursing leadership. These findings highlight that task nursing remains the norm in settings with severe staff shortages, although it is found to be practiced alongside aspects of team nursing and total nursing. The findings have implications for both newborn care nursing practice, and nursing education for future nurses, as well as contributing to the overall shaping of nursing philosophy.

Mrs. Joke Wielenga

Title of Presentation

Heel warming for capillary blood sampling of VLBW infants is unnecessary.

Abstract Submission

Aim To study if not warming the heel prior to heel stick is non-inferior to heel warming concerning the ease of obtaining the required blood volume and reliability of the blood sample, comfort and adverse events in preterm infants **Methods** Randomized control trial with 100 infants < 32 weeks of gestation performed in a level 3 NICU in the Netherlands. Infants were randomized to a heelstick procedure with no warming (N=50) of the heel, warming with washcloth warmed with 37°C tapwater (N=25) or a microwaved warmed hotpack (N=25). **Primary outcome** was the duration of blood sample collection. **Secondary outcomes** were the ease of blood sampling and the infant's comfort. **Results** No differences in background characteristics between groups and no statistically significant differences or clinically relevant differences were observed in primary or secondary outcomes. Not warming did not increase the sampling time or the number of attempts. It also did not affect the sampling quality or the infant's comfort. **Conclusion** Not warming the heel prior to a heel prick for capillary bloodsampling is not inferior to warming the heel in infants < 32 weeks of gestation. Preheating the heel of an infant <32 weeks of gestation as standard of care is unnecessary.

M.N Fu Yali

Title of Presentation

Summary of the best evidence for the prevention of nasal injury in preterm infants with nasal noninvasive ventilation

Abstract Submission

Background: Due to immaturity, the nose of preterm infants can easily be injured, by even a short application of a nasal device. However, 20% to 60% of preterm infants suffer nasal damage while using NCPAP due to weak skin tissue, prolonged use of nasal device, and improper nursing practices, leading to increased risk of infection and decreased compliance and tolerance. In this study, we retrieved, obtained and integrated the related evidences of prevention of nasal injury in premature infants with nasal noninvasive ventilation to provide reference for clinical practice. Methods: We searched guidelines, expert consensus, evidence summaries and systematic reviews in databases and guideline websites of the National Institute for Health and Care Excellence (NICE), Scottish Intercollegiate Guidelines Network (SIGN), the Agency for Health care Research and Quality (AHRQ), Guidelines International Network (GIN), WHO guideline websites, Cochrane Library, UpToDate, PubMed, etc.. The search was limited to the time of library establishment to February 2023. Results: In total, 16 articles were included, including 6 guidelines, 3 expert consensuses, 2 evidence summaries and 5 systematic reviews. Twenty-eight pieces of evidence were summarized from six aspects: risk assessment, ventilation and connection, skin protection, skin assessment, training and support, and continuous quality improvement. Conclusions: This study summarized the best evidence for the prevention of nasal injury in premature infants through nasal noninvasive ventilation. It's suggested that nurses should consider the actual clinical situation when applying the suggestions from the evidence, formulate corresponding nursing measures, and reduce the occurrence of nasal injury in premature infants.

Mrs Qin Yang

Title of Presentation

External anatomical landmarks for urethral catheter positioning in male newborns: A prospective observational study

Abstract Submission

Background - Improper urethral catheterization may lead to complications such as urethral injury, catheter entanglement and urinary tract infection. Most literatures focus on the aseptic technique of procedure, but there is no guideline of insertion length for neonatal urinary catheterization. Objective - To explore the external anatomical landmarks for urethral catheter positioning in male newborns. Methods - This research is based on an observational study in a children's hospital in China. Male neonates who were hospitalized in a National Children's Medical Center and needed Foley balloon catheter were prospectively enrolled in this study. The actual insertion length of urethral catheter for male neonate and the anticipated insertion length based on anatomical landmarks were measured and compared. Results: A total of 67 male neonates were enrolled. The mean body length was 50.66 ± 2.93 cm, and the mean body weight was recorded as 3.33 ± 0.70 kg. The mean length of the actual insertion catheter was 8.77 ± 0.94 cm, while the anticipated length was 10.89 ± 0.95 cm. All the anticipated lengths exceeded the actual insertion length by 0-5 cm, which was deemed suitable for the procedure. Conclusions - Estimating the insertion length for urethral catheters based on external anatomical landmarks is clinically feasible. Selecting an anatomical landmark is a safe method for NICU nurses to ensure the correct positioning of a urethral catheter.

Dr Francine deMontigny

Title of Presentation

Father inclusive practices: Nurses' experience of intervening with fathers of young children

Abstract Submission

BACKGROUND: In the West, the role of the father and his place within the family have greatly evolved over the past forty years. Men show a desire to get involved early in the life of their child and want to be considered a full parent, especially by health care professionals. However, fathers often report that health care professionals' focus is on the mother-child dyad and they feel excluded from family services. Since nurses have a preponderant role with young families, it becomes relevant to examine their beliefs and attitudes towards fathers as well as their sense of efficacy in intervening with them. **GOAL.** The aim of this study was to systematically synthesize the qualitative evidence on nurses' experience of intervening with fathers of young children. **METHODS:** A systematic review of qualitative studies according to the approach of Thomas and Harden was carried out. The search strategy was performed across eight databases. Selected studies were critically appraised, data were extracted by two independent reviewers, and qualitative thematic synthesis was performed. **RESULTS:** Thirteen studies meeting the eligibility criteria were selected. Three analytical themes describing the nurses' experience were developed: 1) Conceiving the role of the father according to his involvement within the family; 2) Working with fathers based on one's conception of the paternal role and 3) Developing a sense of efficacy in intervening with fathers. **IMPLICATIONS:** The results highlight the importance of making nurses aware of the individual realities of fathers. Training in this regard makes it possible to modify their perceptions of the paternal role and to promote the adoption of more inclusive practices with them. This investigation of the experience of nurses working with fathers is helpful in identifying gaps in knowledge and targeting new avenues of research.

Dr Francine deMontigny

Title of Presentation

Father inclusive practices in health and community settings : Key characteristics of an environment conducive to fathers' inclusion

Abstract Submission

BACKGROUND. Extensive research has documented the multifaceted positive effects of paternal involvement on various aspects of family and children's well-being. The perinatal period is a critical time for a father's involvement with his child. Indeed, the level of paternal involvement during pregnancy is a reliable predictor of postnatal paternal involvement. However, although fathers want to be involved and support their partners from the time of pregnancy, many feel ill-equipped to do so and encounter barriers related to health services organization. As such, a significant number of fathers report difficulty not only in navigating services, but also in obtaining support and guidance from health professionals. Health professionals play an important role with fathers, and their support can positively influence fathers' involvement with their child. Despite the fact that professionals are increasingly recognizing the importance of including fathers in their practice, some are still reluctant to involve them and sometimes feel ill-equipped to interact with them. **AIM and METHOD.** In this context, a recent exploratory mixed study carried out in four regions of Quebec (Canada) from 2021 to 2023 sought to analyze practices in the health and social services network that support paternal involvement. **RESULTS.** Three characteristics of an environment conducive to fathers' inclusion were identified: openness, knowledge and institutional support. **IMPLICATIONS.** Participants recognize the health and social services network as fertile ground for practices that are inclusive of paternal realities. Managers' perceptions of the obstacles and benefits of integrating fathers and developing a father inclusive environment will be discussed.

Ms kirsty morgan

Title of Presentation

Support For Neonatal Nurses: Ensuring Improved Quality of Life Via Implementation of Self-Care & Compassion for Self, Colleagues, Babies & Their Parents, Resulting in Improved Communication & Care Provided at The Bedside.

Abstract Submission

Within the highly specialised field of neonatology burnout is sadly, all too common. This may include experiencing anxiety, depression and over-arching stress due to demanding schedules; the emotional cost of caring for critically ill newborns & their parents, when they are at their most vulnerable; & potentially difficult workplace environments. Self-care plays a crucial role in fostering collaborative working environments, with research showing that when individuals prioritise their own well-being and practice self-care, they are better equipped to contribute to collaborative efforts in a more positive and meaningful way. As self-care has been shown to enhance mental and emotional well-being; increase energy and productivity; improve communication and conflict resolution; increase feelings of empowerment; improve the ability to successfully implement boundaries; & to cultivate trust and support, it is clear to see just how valuable this skill is for both the individual & in the workplace. This presentation explores various ways in which regular self-care can quickly - & relatively easily - be implemented by all neonatal nurses, with incredibly positive results in both their home & work life. Methods of self-care which will be explored include: *Attaining clarity about your stressors &/or triggers *Practicing self-compassion *Regular journaling *Meditation *Where & how to focus your energy *Exploring your relationship with anxiety & severing its hold over you *Understanding emotions, including which ones are not just ok, but completely normal to feel.

Mr Ephraim senkyire

Title of Presentation

COVID-19 Vaccination hesitancy among breastfeeding women: a rapid review

Abstract Submission

Background: Globally, the COVID-19 vaccine plays an important role. There have been many health campaigns to encourage at-risk populations such as pregnant and breastfeeding mothers (PBMs) to receive the vaccine. Yet there has been vaccine hesitancy among breastfeeding mothers. The rapid advancement process of the COVID-19 vaccine and the exclusion of PBMs from initial clinical studies led to vaccine hesitancy. This review was conducted to determine the factors that influence COVID-19 vaccine hesitancy among breastfeeding mothers. Method: The databases CINAHL and MEDLINE were utilized to conduct a literature search aimed at answering the rapid review question. articles published from 2019 to 2023 were included in search parameters. The implemented search strategy yielded 442 articles. After applying the established limiters, 412 articles were retained, 285 duplicates were identified and removed. Of the remaining 127 articles, a screening process for titles and abstracts excluded 108 articles deemed irrelevant. Consequently, 19 articles were identified as suitable for full-text screening. After application of exclusion criteria, 9 articles were eligible. PRISMA guided the screening process. Results: Four main themes concerning enablers and barriers to COVID-19 vaccine uptake emerged from the examination of all the studies: knowledge-level factors, interpersonal factors, personal factors, and policy-level factors Conclusion: COVID-19 vaccine hesitancy can be prevented by addressing these major enablers and barriers to vaccine hesitancy among breastfeeding mothers using the five C's model of tackling vaccine hesitancy. Uptake of the COVID-19 vaccine among breastfeeding mothers will reduce the burden of maternal and child morbidity and mortality associated with COVID-19.