

Adolescent Medicine

This presentation will focus on “real” life outcomes including health, wealth, crime and risky behaviour and social adaptation. Previous evidence of studies in childhood that suggest that very preterm/very low birth weight (VP/VLBW) children are at higher risk for autism spectrum symptoms and may have more social problems with peers but may be less risky in their behaviour in adolescence. Social integration is a central feature of overall life satisfaction.

The BEST investigated health, wealth, risky and crime behaviour and social relationships from birth to 26 years in VP/VLBW and full term borns. We found that ex-VP/VLBW adults reported significantly lower health, less wealth (e.g. less further education, more often periods of unemployment, less income), and in particular, more social relationship problems with peers (e.g. less friends, less friend support, being bullied more often, less sexual relationships) but equally good relationships and support from their parents compared to full term comparisons. VP/VLBW adults also reported broader spectrum of autism symptoms such as rigidity in daily routines or communication problems more often. However, they were significantly less likely to be involved in risky behaviour or crime. Overall, VP/VLBW adults reported lower quality of life and less life satisfaction and these were related to their poorer social relationships with peers.

VP/VLBW children need more support in forming and maintaining social relationships with peers. No or few friends and failing to partner by early adulthood may increase the burden on parents and on health and social services.

Factors Associated with Nurses' Competence in Neonatal Intensive Care Units

IS-035 HOW TO IMPROVE TEAM WORKING IN NICUS

S Gischler. Pediatric Intensive Care and Pediatric Surgery, Erasmus University Medical Center – Sophia Children's Hospital, Rotterdam, Netherlands, Lessons Learned From the PICU

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Patient safety and teamwork are closely related in the medical profession, especially in an ICU setting. The PICU in the ErasmusMC Sophia Children's Hospital started with team training in the form of CRM training in 2005 for all personnel working on the ICU. In 2007 a number of nurses and doctors from the team went to the centre for advanced paediatric and perinatal education in Stanford, USA for a teach the teacher course in paediatric medical simulation. Ever since, simulation training is an inseparable part of the patient safety management system in the Erasmus MC-Sophia. Simulation training in a team setting improves team functioning in the complex work setting of an intensive care by allowing the team to practice skills and communication in safe surroundings. Different learning theories show that this way of teaching is very efficient for the adult learner. Also literature shows that teams function better, there is better leadership, and patient safety increases after the implementation of simulation team training. The systemic approach reduces the chance of team failure and reduces the number of medical errors.

The presentation focusses on the set-up of the patient safety management system on the PICU. It illustrates the need and usefulness of team training embedded in a larger patient safety management system.

IS-036 NURSE COMPETENCY IN NICU

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Factors Associated with Nurses' Competence in Neonatal Intensive Care Units

The survivor rate of premature and low birth weight neonates is increasing; however the number of newborns who require admission to NICUs is increasing. The hospitalised neonates and their parents need to receive competent care. Competent is a multi-faceted and it is difficult to provide a single definition for it. Although having broad range of knowledge and technical skills can be considered among the most important aspects of competency, it seems these are not the only criteria for assessing neonatal nurses' competency. The purpose of this paper is elaborating on the different components of competency among neonatal nurses. Integrating skills and knowledge with some other important elements such as critical thinking, leadership and mentoring ability, tendency to do research, safe and ethical practice along with effective communication, professional development, understanding the nonverbal of the neonates and planning based on their individual needs can be considered as necessary aspects of providing competent care in NICUs.

Free Radicals Related Diseases of the Fetus and Newborn: Good and Bad Deeds

IS-037 ANTENATAL FACTORS THAT INFLUENCE NEONATAL OUTCOME

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Dramatic increases in the rates of obesity have occurred in the United States (most states >20%). Women of reproductive age are part of this trend, with obesity during pregnancy associated with increases in inflammation, immune dysregulation, and other complications of pregnancy (e.g. pre-eclampsia, prematurity, diabetes, etc.). Infants can be macrosomic with more NICU admissions, congenital anomalies, and autism. These effects appear to be transgenerational with infants born to obese mothers having an increased risk of childhood and adult obesity. The immune dysregulation leads to increased infections, especially chorioamnionitis and funicitis which are associated with low Apgar scores, encephalopathy, seizures and cerebral palsy. Developing novel interventions to prevent obesity during pregnancy should have a significant impact on short and long term neurodevelopmental outcome. Misuse of opioids during pregnancy is also a significant problem in the US.

Neonatal abstinence syndrome (NAS) affects most infants exposed to opioids *in utero* and genetic factors influencing the incidence and severity of NAS have not been studied. We analysed single nucleotide polymorphisms (SNPs) and epigenetic changes in the mu opioid receptor (OPRM1) and catechol-O-methyltransferase (COMT) genes (pharmacogenetic modulators of opioid action) and correlated this with short term outcomes. Genetic variation and epigenetic changes do appear to influence the incidence and severity of NAS. The results of ongoing studies will enhance our understanding of the pathogenesis of NAS, define best treatment practices, promote early identification of those at highest risk for neurodevelopmental impairment, and facilitate targeted interventions to improve outcome in these high risk infants.



IS-036 Nurse Competency In Nicu

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