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Guest Editorial

Developmentally Supportive Care: An Indian Scenario

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With the advent of medical sciences the chances of survival of infants born preterm as early as 22 weeks has increased in the developed countries. This decrease in mortality has come at an risk of increase in morbidity. It is well documented that these babies who are born premature are at a higher risk of Developmental delay, Cerebral palsy, autism, attention deficit disorder, behaviour concerns and learning issues.

Infants who are born preterm are suddenly thrust from an protective nutritious and enriching environment to an harsh, bright and noisy environment with The primary onus of care being on survival. These changes have an impact on the developing brain where the sensory system is still developing and there is constant synaptic connections being formed and pruned. An preterm is exposed to different painful stimuli in the form of sound, light, touch, smell and movement. This harsh system and environment can have an effect on the developing brain.

Dr Als synactive theory is a model of preterm infant development and the framework talks about the interaction of each subsystem as a dynamic ongoing process where an effect on one system may have an cascading effect on the other subsystem. The sensory environment of the NICU is in direct contrast to the intrauterine environment and is overwhelming, overstimulating and painful for the infant. Base on this theory The Newborn individualised development care programme was developed where each infant's natural behaviour is observed before, during and after caregiving and appropriate development support is given. Based on Dr Als Synactive theory Altimer's and Philip's The Neonatal Integrative Developmental Care Model uses Seven neuroprotective core measures for family-centered developmental care of the premature neonate which comprises of healing environment, partnering with families, positioning and handling, minimizing stress and pain, safeguarding sleep, protecting skin, and optimizing nutrition. This model of care is well established in the developed countries

In a developing country like India focus is still on survival where the neonatal mortality rate stands at 29 per 1000 live birth in 2020. Though there is a development in the infrastructure and various government programmes being initiated, the divide between the urban and the rural population and the facilities available to them still exceeds the demand. In addition there is a huge disparity in doctor: nurse: patient ratio and number of NICU to Number of patient. There is a divide between the urban and the rural with most facilities being available in the urban area. Though over the years the number of NICU has increased it is still very less compared to the requirement and the existing systems are burdened with the load.

With the Overburdened system the care that the infant receives in the NICU is more focussed on medical complications and focus on neurodevelopment takes a back seat. The reason for this are multiple:

- Lack of staff with overburdened medical system. In India average nurse to patient ratio varies from is 1:5 to 1:3.
- Lack of knowledge regarding Developmentally supportive care (DSC) and its proper implementation in the nursing and medical staff. Guidelines published does not include information regarding DSC.

- DSC is practised in the form of skin to skin/Kangaroo mother care in most of the NICU, but other aspects like environment modification of sound and light, positive touch and containment, two person care during painful procedures are still not fully established. Most research articles from India are on KMC and some on Positioning.
- Lack of trained and experienced therapist to handle the neurodevelopment aspect of care. There is no guideline in place for role of neonatal therapist in NICU in India and most therapist are involved near or post discharge or later.
- Lack of parental knowledge and awareness and their involvement in family centered care. Lack of insurance coverage also causes parents to look at reducing hospital stay and getting discharged before ideal time.
- High drop ratio post discharge in neurodevelopment follow up due to parental lack of awareness and geographical limitations to access.
- Lack of research and publication about DSC and its implementation from India.

In India at present the focus of care is still on rehabilitative approach albeit there being a gradual change to pre-habilitative approach. For this shift to happen there needs to be a lot of changes made from the root level namely in:

- Incorporating staff training from college level on Developmentally supportive care.
- Training of health care workers in rural areas to visit homes and health clinics and create awareness on high risk pregnancy and need for institutional delivery.
- Creating awareness in staff and parents on benefits of family centered care and encouraging 24 hours parents access to infants in NICU.
- Staff training on maintaining the sensory environment and infant cue based care.
- Create awareness in therapist for the need of proper Neonatal therapy training and keeping abreast of recent development in this field.
- Nurture infant family relationship and give proper counselling and support to parents with infants in the NICU [1-5].

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