ORIGINAL RESEARCH PAPER

Paediatrics

KEY WORDS:

VALUES MORE FOR LITTLES: "DEVELOPMENTAL CARE"

Jatinder Kaur* Assistant Professor *Corresponding Author

Advances in neonatal care have improved survival of premature and critically ill infants; and while rates of some long-term neurodevelopmental problems in survivors have improved, such as cerebral palsy, there are some other neurodevelopmental problems that have not, such as learning and behaviour difficulties. Developmental care is a philosophy utilized by the entire interdisciplinary team to coordinate medical, nursing, and parental interventions based on the developmental needs for a particular patient. This philosophy of care is to support the infant and their families with a focus on environmental influences affecting neurologic development. Developmental care encourages frequent assessment and responses to a baby's needs.

Preterm infants are born prior to or during critical periods of brain development. The third trimester of fetal development is a period of rapid brain growth and environmental influences such as noise, light or handling may impact the developing brain.

Infant and family-centred developmental care (IFCDC) is a framework of care founded on the theories and concepts of neurodevelopment, neuro-behaviour, parent-infant interaction, parental involvement, breastfeeding promotion (if the mother is willing and able), and environmental adaptation. It has three core principles: sensitive care is good for the brain; parent engagement is good for development; individualised care gives the infant a voice and a better outcome.

Goals: The developmental care is to:
- reduce infant stress responses
- conserve energy to optimise recovery and growth
- promote growth and well-being
- protect sleep
- support emerging behaviours at each stage of neurodevelopmental maturation
- support caregivers to recognise behavioural cues
- encourage and support parents in the primary caregiver role
- support the family's emotional and social wellbeing.

NICU Environment –
- Preterm babies with immature organ systems
- "Deprivation" or "Over-stimulation"
- Inappropriate pattern of stimulation
- Immature distance receptors (e.g. Hearing & vision) over stimulated.
- Mature tactile and vestibular pathways under-stimulated.
- No parental / maternal involvement.

The Nature Of The Womb:
- Cushioned and comfortable aquatic abode
- Thermal comfort
- Zero insensible water losses
- Shielded from light
- Protected from sound
- Effective and safe ECMO-like oxygenation
- Optimal excretion of waste products
- Isolation and asepsis Parenteral nutrition

Interventions To Reduce Noise:
- Decrease noise in NICU
- Decrease monitor noise
- Respond quickly to alarms
- Rounds & reports away from bedside
- Speak softly
- Decrease telephone & intercom noise
- Move equipment quietly, repair noisy ones
- Decrease staff generated noises
- Prepare medications & feedings away from bedside
- Gently open doors and drawers

Follow The Sound Limit Recommendations
Light Reduction Methods:
- Shade head of crib / incubator
- When required , use spot light / procedure light
- Eye covers must with PT
- Use available natural light

Positioning:
- Prone / side lying
- Swaddle / cover to keep in flexed position
- Attempt to "nest" the infant
- Promote midline alignment
- Head support
- **Avoid: -** Hyperextension of neck ,Frequent head turning to side ,Lower extremity frogging and Bigger diaper

Handling:
- Physiologic and behavioral stress
- Pace the care according to baby
- Time the care around sleep / wake cycles
- No routine procedure
- Provide 2-3 hrs of uninterrupted sleep
- Watch for S/o stress

CONCLUSION:

Premature infants have special needs, and carefully addressing those needs is key to their survival. They may need help breathing or maintaining body heat. Feeding can be challenging, and jaundice, low blood sugar, and anemia are all possible. They may also have difficulty dealing with stimuli, so the NICU environment is particularly important. It is crucial that we foster collaboration among healthcare providers, ensure effective training for developmental therapists, and focus on the holistic care of newborn babies.

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