PART 2

OBSERVATION AND IMPLEMENTATION

Weeks 7-12

Observation and implementation

From week 7-12 you will begin to evaluate practice using structured observations during activities that are a familiar part of neonatal care, including

- Pain management
- Kangaroo care
- Nursing cares
- Medical procedures
- Feeding

You will apply what you have learnt from observing babies as you evaluate the environment and interaction with the baby.

The assignments in weeks 7-11 do not have to be done in any particular order. Familiarise yourself with all the assignments and fit them in when opportunities present themselves.

Always try to engage your colleagues and parents in the observations. You are not expected to give feedback at this stage but at times you may feel that it would be appropriate to do so. Read the Guidelines for Giving Feedback on page 91.

The 5 Step Dialogue on page 74 outlines the basic principles of good practice.

In week 12 you will complete your course work and the evaluations.

GUIDELINES FOR GIVING FEEDBACK

At this stage you are not necessarily expected to give feedback to others but sometimes you may be asked, or you might feel that you ought to give feedback! Giving any kind of feedback to other caregiver requires very sensitive communications.

Feedback helps us to understand the effects of our behaviour on others so that we can begin to change (if necessary). It isn't always easy to give feedback. One of the best ways is to listen and give people the opportunity to think for themselves before sharing your thoughts. Here are some guidelines for positive and constructive feedback.

Content of feedback

Feedback works best when it refers directly to observable behaviour. Feedback is effective when:

1. It is focused on the observed behaviour or actions, and not on the person.
2. It is descriptive: this means not an interpretation or a judgment about the behaviour. Describe what *you* observed, and how *you* perceive this and what kind of reaction it evoked in *you*.
3. It is specific and not general, and refers to a specific and clearly defined behaviour.
4. It helps the receiver to do something positive. Giving advice, which is not practical, is not helpful.
5. It is formulated in a way that invites the receiver to change.

To make feedback more effective…

1. Find the right moment to give feedback i.e. when the receiver is receptive.
2. Take time to think about what you want to say. Writing notes about an event can help you to formulate your thoughts before you give feedback.
3. Use "I" rather than "you" when giving feedback e.g. "I think that…" Starting with "you…", can sound accusing or judgmental.
4. Limit the feedback to what happened during the contact experienced or observed with this person.
5. Describe your own feelings about the feedback.

Some extra advice about feedback related to caregiving:

1. Comment on what went well, (positive feedback)
   "It was really helpful for me that you let me observe while you cared for Baby X this morning. I think it was helpful for the baby that you spoke to him before you started his care".
2. What can be improved? (Constructive criticism)
   "I thought the baby looked uncomfortable while his temperature was taken. What did you think?"
3. What could be improved? Try to give an alternative. E.g. "Could you think about resting your hand on his shoulder or holding his hand for a few moments to give him more time to adjust before you start?"
4. Is it clear? Check if the other person understands what you're trying to explain. If the goal of your feedback is not understood the learning effect will be minimal.

(Adapted from: Nelissen, H (1978). Samen werken, samen leren Bloemendaal: SOVA.)

THE 5 STEP DIALOGUE

Basic steps for good practice (Adapted from Cherry Bond's version)

Step 1: **Prepare:**

- Gather everything you need so that you can give the baby your full attention.
- Ask colleagues to avoid disturbing you.
- Consider how the environment will affect the baby.
- Consider the baby's preferred comfort strategies.
- Wait and watch baby's breathing, colour and sleep/awake state before you approach.
- Look for signs that the baby is ready and would welcome attention, for example when he is in behavioral state 3, 4 or 5.Avoid interrupting sleep.

Step 2: **Permission**

- Use your voice to gently prepare the baby and let him know that something is about to happen. Watch for his reaction before you begin.

Step 3: **Tune-in**

- Rub your hands together to warm them.
- Start with still touch, pause and wait for the baby to adapt.
- Tune in to the baby's behavious.. During caregiving pause and go back to still holding if the baby shows signs of stress or instability (see week 5). Sometime a baby may need a prolonged pause in order to regain energy.

Step 4: **Adapt**

- Adjust supporting materials to meet the needs of the baby, e.g. are the nesting boundaries or rolls enough to support the feet.
- Adapt care-giving strategies in response to baby's signs of vulnerability or stability.
- Pacing activities may seem to take more time but the baby will be more stable during and afterwards.

Step 5: **Complete**

- Finish with a still hand, and a kind word or thought of your leaving.
- Remove your hand very slowly.
- Wait and watch to ensure baby is settled.

Week 7

PAIN, STRESS and COMFORT

This week is about pain and comfort. For many years it was believed that the nervous system of preterm infants was too immature to register pain; this has now been disproved. Pain responses are observed in even the most preterm babies although the way they are expressed may vary.

Preterm infants appear to be more sensitive to painful stimuli than term babies. EEG studies indicate that the pain response is greater in infants born 24 -32 weeks than in term born neonates. Before 28 weeks the infant may not be able to differentiate between a noxious stimuli and touch; responses to painful and stressful experience may appear to be similar.

Repeated exposure to painful experience has been linked to lower developmental scores, impaired growth, less optimal brain development, and later alterations in pain related behaviour and perceptions (Smith et al 2011, Vinall & Grunau 2014).

This week's assignments will help you to observe the variety of behavioural indicators of pain and stress in order to assess the infant's experience.

By observing and scoring you will learn to systematically check for sources of pain, discomfort or stress.

Competency

- Understands and refers to a variety of behavioural indicators in order to assess infant's experience of pain and stress
- Systematically checks for sources of pain, discomfort and stress

ASSIGNMENTS WEEK 7 PAIN and COMFORT

7.1 DEVELOPMENT

Development of pain pathways
At 20 weeks gestation: sensory receptors and cortical neurons present
24 weeks cortical synapses are present
30 weeks myelination of pain pathways

7.2 OBSERVATION.

7.2.1. Score a pain scale based on your observations of three babies in intensive care. There are over 40 pain scales for newborn/preterm infants in existence and if you have one that is used on the unit where you work, you can use that. If not we suggest that you use the ALPS-Neo, score sheets and manual provided.

7.2.2. If a baby is showing signs of pain or discomfort use the Comfort Checklist p 81, to consider possible causes.

7.2.3. Score the EVIN (Evaluation of Intervention) Scale, p.82 on

a) A non-painful event such as nappy change
b) A painful event such as heel stick

7.3 FAMILY PARTICIPATION.

Ask parents about their perceptions of their baby's comfort and refer to this in your reflective notes.

7.4 REFLECTIONS

Thinking about babies' pain and stress is quite a painful process in itself. How did you feel about your observations this week? How did you decide which babies you would observe? How did you feel about discussing pain with parents? How do you think they felt about being asked about this topic? Will anything you learnt this week make a difference to your practice? Did you share any of your observations with colleagues? How did they react?

7.5 SYSTEM CHANGE

7.5.1 Complete the Site Assessment: PAIN and STRESS MANAGEMENT, p. 85.

7.6 EVIDENCE

Meek, 2012, Options for procedural pain in newborn infants. *Archives of Diseases in Childhood Educational Practice Edition* 97:23-28

Smith GC, Gutovich J, Smyser C, Pineda R, Newnham C, Tjoeng TH, Vavasseur C, Wallendorf M, Neil J, Inder T. 2011, Neonatal intensive care unit stress is associated with brain development in preterm infants, *Annals of Neurology* 70(4):541-9.

Lundqvist P, Kleberg A, Edberg AK, Larsson BA, Hellström-Westas L, Norman E, 2014, Development and psychometric properties of the Swedish ALPS-Neo pain and stress assessment scale for new-born infants. *Acta Paediatrica*. 103(8):833-839.

Vinall J, Grunau R E, 2014, Impact of repeated procedural pain-related stress in infants born very preterm, *Pediatric Research*, 75(5):584-7

Astrid Lindgren and Lund Childrens' Hospitals Pain and Stress Assessment Scale for Preterm and Sick Newborn Infants. Lundqvist P, Kelberg A, et al 2014

ALPS-Neo

	0	1	2
Facial Expression	Peaceful	Distressed expression, may grimace slightly	Distressed expression, may cry Chin drop
Breathing Pattern	Calm, effortless breathing	Slightly strained breathing Breathing pauses	Strained breathing Fast breathing Apnoeas
Tone of extremities	Normal tone	Varied tone	Tense or flaccid
Hand/Foot Activity	Relaxed	Slightly clenched May try to grasp Hand on face	Tightly clenched Fingers/toes spread Flaccid
Level of Activity	Calmly awake Calmly asleep	Occasional motor restlessness	Persistent motor restlessness Exhausted

Score	Recommended Action
3 or more but less than 5	Try non-pharmacological interventions and evaluate impact
5 or more	Try non-pharmacological interventions and repeat assessment at 5 min intervals.
Continues at 5 or more	If assessment continues to be < 5, pharmacological pain relief should be considered in consultation with the physician in charge.

Manual for ALPS-Neo pain and stress assessment scale

An infant in a balanced state shows organized behaviour, which corresponds to the scale's *score of 0* in the respective behavioural items. In the next step, *score 1,* the infant can show initial signs of pain/stress as well as signs of attempting to regain balance. The infant may put a hand over its face (defensive behaviour), try to grasp something to hold onto or squirm (find a more comfortable position) and may partially or briefly succeed. An infant who is assessed at s*core 2* in any of the behavioural items is in an unbalanced state, affected by pain or stress, and needs, if the total sum is high, non-pharmacological individualized supportive care intervention and/or pharmacological treatment in order to regain balance/well-being.

A high total sum can mean that the infant is in a state of total imbalance, e.g. it has a serious lung condition in which the imbalance in the physiological subsystem spills over into the motor and state regulating subsystems [1, 2], or that the infant is in serious pain. The infant can also be assessed at a high level on the scale because of hunger, a wet nappy, uncomfortable position, etc. The first step in such cases is to carry out an individualized supportive care intervention. If the infant responds positively to this intervention – obtaining a low total score in a new assessment – then the infant was expressing signs of dissatisfaction/stress and the intervention can be considered as an assessment of the infant's consolability. If, on the contrary, the infant continues to obtain a high total score, it is most probably experiencing pain.

It is sufficient for the infant to show only one of the behaviours in each assessment cell for it to be attributed to the current score. When the infant shows signs from two different assessment cells, the higher value applies (for example when the infant shows signs corresponding to both score1 and 2, the infant will be attributed the score of 2). The assessment of hand/foot activity is difficult when the infant is tucked up. In that case, scores must be assessed for hand/foot activity in relation to the infant's other behaviours. If the infant is distressed or experiencing pain, the assessment of the other parameters will be high, so the risk of underestimating the score value is small.

Individualized supportive care intervention is always the primary alternative to optimize the infant's condition, as long as the infant does not have an obvious reason for pain, due to post-operative conditions, a vacuum extraction delivery or thoracic drainage, for example. When individualized supportive care intervention does not have sufficient effect, the infant needs pharmacological treatment in order to be free of pain. In order to ensure that the infant receives safe and adequate pharmacological treatment, the recommendations for considering this must follow an established algorithm, based on the pain score results. Below is an example of how this can be designed:

1) If the infant gets a total ALPS-Neo score of $\geq$3 but <5 the non-pharmacological individualized supportive care intervention is carried out and subsequently a follow-up assessment is carried out to evaluate the effect of the intervention.
2) If the infant gets a total score of $\geq$5 points the non-pharmacological individualized supportive care intervention is carried out and the assessment is repeated at 5-minute intervals. If the assessment continues to be $\geq$5 pharmacological pain relief should be considered in consultation with the physician in charge.

Facial expression

0. *Peaceful:* Can look for something to suck on or is sucking
1. *Distressed expression, may grimace slightly:* Furrow between the brows, squeezes eyes shut, may pull the corners of the mouth sideways
2. *Distressed expression may cry or chin drop:* Tenses the facial muscles, screws face up or lies with open mouth, exhausted facial expression.

Breathing pattern

0. *Calm effortless breathing:* Breathes calmly with or without respiratory support
1. *Slightly strained breathing, breathing pauses:* Deviates somewhat from the infant's "basic pattern", e.g. slightly faster, slightly more irregular and/or indications of labored breathing (light retractions, nasal flaring, grunting). Can exhibit brief respiratory pauses
2. *Strained breathing, fast breathing, apneas:* Increased respiratory effort with clear retractions and nasal flaring, grunting, can exhibit long respiratory pauses. Can alternate between breathing deeply and superficially, possible taking deeper breaths after a period of superficial breathing/apnea.

Tone of extremities

0. *Normal tone:* Neither tense nor flaccid
1. *Varied tone:* Here the infant starts to be affected and can then alternate between losing strength and thereby tone, being tense or regaining normal tone.
2. *Tense or flaccid:* If the infant is flaccid it lies heavily on the bedding.

Hand/foot activity

0. *Relaxed:* Can grasp something lightly, is neither tense nor limp
1. *Slightly clenched, may try to grasp, hand on face:* Places hand over the face as though to protect/shield itself
2. *Tightly clenched, fingers/toes spread or flaccid.*

Level of activity

0. *Calmly awake, calmly asleep:* Calm and satisfied. The infant holds its arms and legs bent and still, close to the body with normal muscle tone
1. *Occasional motor restlessness:* Moves in an agitated way, stretches arms and legs. Can intermittently calm down by bringing the arms and legs in closer to the body
2. *Persistent motor restlessness or exhausted:* Stretches arms and legs, does not calm down, or looks tense and exhausted, does not have the energy to react.

References

1. Als H. Toward a synactive theoryof development:Promise for the assessment and support of infant individuality. *Infant Mental Health Journal* 1982, 3(4):229-243.
2. Als H, Butler SC: Newborn individualized developmental care and assessment program (NIDCAP): Changing the future for infants and families in intensive and special care nurseries. *Early Childhood Services* 2008, 2(1):1-20.

Kleberg Agneta, RSCN, PhD, NIDCAP Master Trainer
Lundqvist Pia, RSCN, PhD

Infants name: Date:

COMFORT CHECK (Warren 2005)

Source checked		Action taken	
Soiling – should be remedied regardless of planned routines			
Wet or dirty nappy		Changed nappy.	
Wet bedding		Changed	
Position			
Twisted or trapped limb		Freed limbs and repositioned	
Chin on chest.		Positioned with head and body in alignment to free airway	
Head tipped back or neck twisted		Positioned with head and body aligned	
Abducted legs.		Repositioned	
Shoulders retracted.		Repositioned.	
Baby struggles to change position.		Repositioned.	
Noxious stimuli			
Background noise >180db		Noise reduced.	
Frequent peaks > 70 db		Monitors reset, volume reduced. Alarms / bells cancelled promptly.	
High CPAP pressure.		Medical review of CPAP pressures	
Direct light on baby's face >180 lux		Shade provided	
Frequent changes or flickering light ?		Spotlight filtered Shade provided	
Strong odours.		Consider impact of perfume and chemical cleaners.	
Bedding, clothing and equipment			
Rough, lumpy bedding		Bedding changed/rearranged.	
Lack of supportive boundaries.		Boundaries built to fit around baby.	
Movements restricted – unable to move.		Boundaries provided. Rolls between legs removed. Wrapping loosened.	
Baby unable to brace feet..		Provide soft wall around legs and feet.	
Baby naked.		Dressing / covering considered	
CPAP fixings too tight or badly placed		Reposition and consider hat size	
Over arousal from handling etc			
Many sleep interruptions.		Adjust care plan to allow rest.	
Abrupt handling.		Handling adjusted. Cares paced to suit baby.	
Large movements.		Contain with bedding etc	
Restraint.		Alternatives e.g. containment, grasping, bracing, sucking used.	
Responsive to some soothing strategies.		Quiet talking Grasping – finger, toy, cloth Still holding e.g. head, bottom, feet Bracing – feet on hands or bedding Sucking – dummy provided	

Comments:

7.2.3. EVIN

EVALUATION OF **IN**TERVENTION

The EVIN is a way to evaluate the sensitivity of caregiving. It has been validated for use by a variety of professionals on the neonatal unit.

- Each item on the scale is based on evidence, or consensus, on best practice:

  a) = best practice (Score 2)

  b) = intermediate practice (Score 1)

  c) = poor practice (Score 0)

- Ask the person delivering care or performing the procedure for permission to observe and explain the purpose.
- Before the intervention starts check the before items (1-3) with the baby's nurse.
- Then observe the intervention and score the rest of the items (4-17) after it has finished.
- Ask the person who did the intervention to score item 18 for their perspective.
- Finally score your own perception of the baby's comfort (19) and compare with question 18.

EVALUATION OF INTERVENTION (EVIN):

DATE: _____ BABY I.D: _____ INTERVENTION: _____

Please tick one indicator in each item. If not sure pick the nearest example. If none apply mark N/A

Before _____

1. REST: Did the baby have uninterrupted rest prior to being approached for the intervention?

a) YES: at least 50 minutes undisturbed.
b) SOME REST: at least ½ hour undisturbed rest.
c) LITTLE or NO REST: less than ½ hour rest, or baby undisturbed but restless.

2. SLEEPING/WAKING: Was the intervention timed to fit the baby's sleeping/waking/feeding pattern?

a) YES: The baby was rousing or quietly awake; not within 30 minutes of a feed.
b) Within 30 minutes of a feed.
c) NO: The baby was woken from restful sleep or was already upset.

3. SUCROSE: Was the baby offered sucrose before the intervention? N/A for this procedure

a) YES: sucrose written up, ready and given before painful stimulus.
b) LATE: sucrose offered after start of intervention only.
c) NO: eligible for sucrose but not offered.

Support during intervention _____

4. APPROACH: How was the baby approached before the intervention started?

a) REASSURING: baby spoken to with soothing voice and then held with still hands before intervention starts.
b) DIRECT: gentle handling at start but without warning or period of adjustment.
c) ABRUPT: sudden approach with brisk handling.

5. POSITION: N/A if baby in cot.

a) Cradled securely or held chest to chest by parent/caregiver and position adjusted for baby's comfort; baby may be dressed or swaddled; and/or wrapped (if in skin-to-skin holding).
b) Baby held somewhat loosely in arms, without clothes or not wrapped/swaddled with little adjustment for baby's comfort; or sidelying on a pillow on parent/caregiver lap.
c) Baby held very loosely in arms with no adjustment to position; baby supine on pillow on lap

6. BEDDING: How much support did the bedding give the baby? N/A if baby held in arms.
How was the baby positioned during the intervention? Side □ Back □ Front □

a) HIGH SUPPORT: substantial boundaries, and/or rolls e.g. to support back and brace feet; covered and tucked in but not restrained by tight wrapping.
b) MODERATE: some bedding rolls around baby with shallow loose boundaries or covers.
c) LOW SUPPORT: baby has no supporting boundaries or covers, or is tightly swaddled.

7. SUCKING: Was sucking (soother / breast feeding) offered to the baby? N/A baby asleep or has oral ET Tube.

a) FACILITATED: sucking offered and baby given time and support to suck; or offered and rejected.
b) SOME FACILITATION: sucking offered without time or support to establish suck or facilitated intermittently; or soother fell out and not reoffered.
c) NOT FACILITATED: sucking not considered; no soother available; or resistance ignored, soother pushed into mouth; or sucking offered when baby already crying.

8. COMFORT 1: Was anyone available to support the baby during the intervention?

a) PRESENT: second person gave baby comfort or support throughout intervention.
b) SOMETIMES PRESENT: second person available for comfort and support some of the time; or caregiver provides comfort.
c) ABSENT: no-one offered comfort or support.

9. COMFORT 2: How was the baby soothed during the intervention?

a) SOOTHING: reassurance with still hands and soothing voice as needed* or baby settled and did not need soothing.
b) SOME SOOTHING: occasional soothing with still hands and voice*.
c) NO SOOTHING: no attempts to soothe, arousing efforts e.g. vigorous or fidgety stroking, baby restrained.
*some babies may find slow stroking or patting soothing

10. FACILITATION: How was the baby helped to use his/her hands and feet for self regulation?
a) FACILITATED: baby helped to grasp, keep hands together, place hands on head/ face/mouth, or brace/clasp feet.
b) SOME FACILITATION: some facilitation some of the time.
c) NO FACILITATION: arms and legs restrained or arms thrashing or flaccid and unsupported.

11. PACING 1: Was the pace adjusted to maintain the baby's autonomic stability?
a) GOOD PACING: gentle pace with pauses for baby to recover from mild to moderate instability.
b) SOME PACING: intervention paused when signs of instability some of the time, or paused but not long enough for baby to regain stability.
c) NO PACING: brisk pace with pauses only if baby needs "rescuing".

12. PACING 2: Were there any delays or interruptions during the intervention?
a) NONE: intervention not delayed or interrupted unless to ensure baby's stability.
b) SOME: caregiver distracted or intervention interrupted briefly.
c) SEVERAL: intervention interrupted several times or prolonged interruption.

Environment

13. LIGHT: Was lighting adjusted for the baby's comfort?
a) LOW: shaded windows, lights off or dimmed, eyes and face shaded.
b) MODERATE: sunless daylight, no overhead light; or bright some of the time.
c) BRIGHT: bright daylight, full overhead light throughout the intervention.

14. ACTIVITY: How busy was the area around the baby during the intervention?
a) CALM: few people, little action.
b) MODERATE: several people, working calmly.
c) HECTIC: many people, crowded, hurried movement.

15. NOISE: Were sound levels in the nursery appropriate for the baby?
a) QUIET: occasional muted or distant sounds, and hushed speech.
b) MODERATE: intermittent sounds, moderate talking.
c) LOUD: mechanical noises near baby's bed, loud talking and laughing, babies crying, telephones ringing, radio etc.

After

16. COMFORT: How was the baby made comfortable after the intervention?
a) SUPPORTED: repositioned or cuddled and someone stayed to offer comfort until baby was stable and comfortable.
b) SOME SUPPORT: baby settled and left unattended at end of intervention.
c) NO SUPPORT: baby was unsettled and left unattended at end of intervention.

17. SUCKING: Was sucking facilitated after the intervention? N/A baby settled or asleep
a) YES: soother/ breast feed offered; baby given time and support to establish suck; or offered and rejected.
b) ATTEMPTED: baby not given sufficient time or support to establish suck; or soother fell out during intervention and not offered again.
c) NO FACILITATION: sucking not considered; no soother available; or offered insistently.

18.Caregiver's perspective
Was the baby's position convenient for you to carry out the intervention?

Comfortable 1.....2.....3.....4.....5.....6.....7 Difficult

How distressed do you think the baby was during this intervention?

No distress 1.....2.....3.....4.....5.....6.....7 Very distressed

19. Observer's perspective
How distressed do you think the baby was during this intervention?

No distress 1.....2.....3.....4.....5.....6.....7 Very distressed

COMMENTS:

CARES OBSERVED: □ NAPPY CHANGE □ TEMPERATURE □ PROBE CHANGE □ CLOTHING CHANGE □ HEEL STICK □ VENEPUNCTURE □ TOP & TAIL/WASH □ OTHER _____

Week 7: SITE ASSESSMENT: Pain and Stress Management

	PAIN and STRESS MANAGEMENT	Strength	Change	Timeline
a.	The unit has a pain and stress management policy			
b.	The unit has guidelines for non-pharmacological pain and stress management			
c.	All nurses receive education in pain and stress management			
d.	All doctors receive education in pain and stress management			
e.	Management of procedural pain is regularly audited			
f.	Management of ongoing pain is regularly audited			
g.	A validated pain assessment tool is used to monitor infants where pain is expected or suspected			
h.	Comfort checks are performed regularly for infants in intensive care			
i.	Support for infants during potentially painful procedures includes a person available to provide comfort			
j.	Support for infants during potentially painful procedures includes supportive but not restraining wrapping			
k.	Support for infants during stressful/painful procedures includes attention to reduced lighting and noise			
l.	Infants are offered something to suck during stressful/painful procedures			
m.	The unit has guidelines for use of sucrose			
	Your score			
	Max score	26		
	Percentage; 100 ÷26 x your score			

Week 8

KANGAROO CARE

This week is about Kangaroo Care, which is usually skin-to-skin, provided the parent is comfortable with this.

The foetal brain expects certain sensory inputs in order to develop normally. The sensory environment that the infant meets in the neonatal unit is different in every modality – touch, taste, movement, hearing and vision – to that which their mother would have provided during the critical last trimester of pregnancy. It is during this time that the baby is preparing for adaption to the world around them after they are born, and in particular to forming strong bonds with their parents. Skin to skin is the next best thing. Not only is the baby nestled against the soft warm surface of the mother's, or father's, body but he/she can experience her/his familiar bodily rhythms and sounds, her odour (which has similar properties to the familiar flavour of her amniotic fluid) and can hear her voice more easily.

Skin to skin gives the preterm baby early opportunities for breast feeding and a greater chance of breast feeding success. The warmth of contact between baby and mother stimulates the production of oxytocin, a hormone that is important for love and lactation; it helps the baby to sleep and digest his food (and thus to grow) and also has benefits for parents.

This week's assignments will help you in your planning and preparation for an episode of kangaroo care with a parent. They also help you to reflect on your own practice when supporting a baby and parent for kangaroo care.

Competency

- Confident to prepare parents and baby for skin-to-skin contact
- Safely transfers infants to parents for skin-to-skin transfers
- Knows when to ask for assistance from a colleague for successful skin-to-skin contact

8.1 DEVELOPMENT

KANGAROO CARE: BENEFITS FOR THE BABY
Reduces neonatal mortality.
Less incidence and severity of infection.
Accelerated autonomic and neurobehavioral development.
Promotes self-regulation in premature infants: sleep wake cyclicity, arousal modulation, and sustained exploration.
Consistently high and stable oxygen saturation levels, lower airway resistance, fewer apnoea episodes, and an increased percentage of quiet sleep.
Stable temperature within normal thermal zone, heart rate, and respiratory rate.
Reduced crying associated with painful procedures.
Breast milk is readily available and accessible, and strengthens the infant's immune system.
The maternal contact causes a calming effect with decreased stress and rapid quiescence.
Reduced physiological and behavioural pain responses.
Increased weight gain.
Enhanced attachment and bonding.
Positive effects on infant's cognitive development.
Less nosocomial infection, severe illness, or lower respiratory tract disease.
Restful sleep Earlier hospital discharge.
Possible reduced risk of sudden infant death syndrome (SIDS.
Normalized infant growth of premature infants.
May be a good intervention for colic.
Possible positive effects in motor development of infants.

KANGAROO CARE: BENEFITS FOR THE PARENTS
Enhanced attachment and bonding.
Resilience and feelings of confidence, competence, and satisfaction regarding baby care.
Increased milk volume, doubled rates of successful breastfeeding and increased duration of breastfeeding.
Physiologically her breasts respond to her infant's thermal needs.
Profoundly beneficial for adoptive parents with critically ill preterm infant.

Adapted from: The Science Behind Kangaroo Care By Yamile Jackson, PhD, PE, PMP and Barbara Weaver, CCRN. http://www.nurturedbydesign.com

8.2 OBSERVATION.

8.2.1. Evaluate 2 episodes of skin-to-skin using the kangaroo care worksheet.

*Kangaroo care is usually arranged skin-to-skin for maximum benefit but if this is not practical, or if parents prefer to hold their baby dressed or wrapped with just the face against the skin it can still be beneficial.

8.3 FAMILY PARTICIPATION.

Ask parents to complete the Parent Questionnaire about their experience of skin-to-skin / kangaroo care.***EFLECTIONS***

8.4.1. How did you feel about the kangaroo care sessions you observed, or took part in? What went well for the baby and the parent? What did you learn from these observations? How confident was the nurse organising the kangaroo care? Thinking back on it, was there anything that might have been done differently?

8.4.2. Use The Self Assessment Questionnaire to evaluate your own confidence and skill in this area.

8.5 SYSTEM CHANGE

8.5.1 Complete the Site Assessment: Kangaroo Care

8.5.2 Read the tip sheets

8.5.2. A. Step by Step Guide; Single person (parent) transfer for skin to skin holding

8.5.2. B Step by Step Guide: Two person transfer for skin to skin holding.

8.6 EVIDENCE

Nyqvist K H, et al, 2010. State of the art and recommendations. Kangaroo mother care: application in a high-tech environment. *Acta Paediatrica 99*(6), 812–9.

Kledzik, T. (2004). Holding the very low birth weight infant: skin-to-skin techniques. *Neonatal Network*, *24*(1), 7–14.

8.2. KANGAROO CARE EXERCISE 1

Use this outline to help you reflect on your own practice when supporting a baby and parent for kangaroo care.

Although skin-to-skin is usually recommended for kangaroo care it is not always practical and sometimes parents prefer not to undress their baby; it can be very rewarding for parent and baby with or without clothing.

Baby's name Date:

Gestational age at birth. Gestational age today.

Current level of care: e.g. ITU, HDU, SCBU, Transitional care

Time and place observed:

Mother or father having kangaroo care?

Baby in cot or incubator?

Breathing support:

Other medical treatments / equipment e.g. phototherapy, IV, full monitoring etc.

……..

1. Planning and preparation

a) How was the kangaroo care session planned with the parents, e.g. was the timing discussed, what information was given?

b) How was the mother/father prepared for kangaroo care e.g. what kind of clothing was recommended, how did you ensure parents comfort and privacy?

c) Describe the baby before kangaroo care:

- Physiological: e.g. breathing, heartbeat, oxygenation, colour.

- Motor: e.g. muscle tone, facial expression?

- Level of arousal: e.g. restful or restless sleep, stirring, drowsy, glazed awake, alert awake, fussing, crying?

d) How was the baby prepared for kangaroo care e.g. greeted, comforting hand, turned?

e) Was the baby already naked or did clothing have to be removed? Did the baby wear a hat and socks or did baby do kangaroo care with clothes on?

f) Who transferred the baby and how was the baby supported during transfer out of incubator/cot to the parent's chest?

g) How was the baby positioned on the parent's chest?

2. During

a) Describe the baby during kangaroo care:

- Physiological: e.g. breathing, heartbeat, oxygenation, colour?
- Motor: e.g. muscle tone, facial expression?
- Level of arousal: e.g. restful or restless sleep, stirring, drowsy, glazed awake, alert awake, fussing, crying?

b) Were any procedures/ performed during kangaroo care e.g. tube feed, heelstick? Were there any other interruptions?

c) How did parent and baby interact during this session?

d) How long did the kangaroo care session last?

e) Why did the session end?

f) Environment: What was the environment like during kangaroo care? Use the 9 point scales to score.

Sound										
Very quiet	1	2	3	4	5	6	7	8	9	Very noisy
Light										
Near darkness	1	2	3	4	5	6	7	8	9	Very bright
Activity										
Very calm	1	2	3	4	5	6	7	8	9	Hectic
Privacy										
Very private	1	2	3	4	5	6	7	8	9	Very public

3. After

a) Who transferred the baby back to bed and how was the baby supported during transfer?

b) How was the baby positioned and settled in the incubator/cot?

c) Describe the baby after kangaroo care:

- Physiological: e.g. breathing, heartbeat, oxygenation, colour?
- Motor: e.g. muscle tone, facial expression?
- Level of arousal: e.g. restful or restless sleep, stirring, drowsy, glazed awake, alert awake, fussing, crying?

d) Overall do you feel the experience was an enjoyable one for both mother/father and baby? Did the parents express their feelings about this experience?

5. Recommendations.

Based on this experience what suggestions would you make for successful kangaroo care with this baby and family?

a) Timing:

b) Nursery environment:

c) Planning and Preparation:

d) Comfort of the mother/father:

e) Comfort of the baby:

f) Transferring in and out of incubator/cot:

g) Interaction during kangaroo care:

f) Any other recommendations:

KANGAROO CARE: PARENT QUESTIONNAIRE

We would like to know about your experience of kangaroo care, holding your baby against your skin (skin-to-skin). This will help us to see how well we are doing and what improvements might be needed...

Your baby's age at birth: Your baby's age now:

1. Can you remember when you first held your baby skin-to-skin? How old was he/she?

2. What information were you given about skin-to-skin care?

3. Has your baby had skin-to-skin with father as well as mother?
   Often □ Occasionally □ Never □

4. How did you find skin to skin? (Please tick which of these apply)

   Relaxing □ Rewarding □ Helped you to understand your baby □

   Stressful □ Made you happy □ Comforting □

   Helped you to feel close to your baby □ Worrying □

   Made you feel more confident as a parent □ Made you sad □

   Made you feel confident about the care your baby was receiving? □

5. Did you think your baby enjoyed skin to skin?
   Yes □ No □ Not sure □

5. Was there anything that could have made skin-to-skin a better experience for you?
6.

KANGAROO CARE: SELF ASSESSMENT

Take some time to reflect on your experience of skin-to-skin kangaroo care and answer these questions.

1. How confident do you feel about telling parents the benefits of kangaroo care?

Not at all confident 1 2 3 4 5 6 7 8 9 Very confident

4. Do you find it easy to plan a time for skin to skin together with parents?

Not at all easy 1 2 3 4 5 6 7 8 9 Very easy

5. How confident do you feel about helping to transfer a baby from an incubator to the parent e.g. small baby receiving CPAP support?

Not at all confident 1 2 3 4 5 6 7 8 9 Very confident

6. What and where do you record skin-to-skin events?

7. What are the challenges that make it difficult for you to support kangaroo care?

8. How could you help to make skin-to skin more successful on your unit?

Date: …….. Name …….

Week 8: SITE ASSESSMENT: Kangaroo Care

For instructions see week 1.

	KANGAROO CARE	Strength	Change	Timeline
a.	Your unit has guidelines for kangaroo care			
b.	Reclining chairs are available for kangaroo care			
c.	Parents receive written information about kangaroo care			
d.	All nursing staff are able and willing to assist parents with kangaroo care			
e.	Parents are consulted and given choice about when they do kangaroo care			
f.	Guidelines for kangaroo care include transfer techniques			
g.	There are members of the team who are skilled enough to manage kangaroo care safely with ventilated babies, if medically approved.			
h.	Kangaroo care is not time limited			
i.	All parents and babies have regular opportunities for kangaroo care unless medically contraindicated			
j.	Parents are encouraged to prepare for long periods of kangaroo care (at least one hour)			
k.	Infants are wrapped or nested with limbs tucked in for transfer from incubator to parent.			
l.	Nurses are willing to help each other with transfers for vulnerable babies			
m.	Kangaroo care is often planned in conjunction with other activities that involve undressing the baby e.g. weighing, to facilitate skin-to-skin contact.			
n.	Transfers are carried out slowly and quietly			
o.	All staff are familiar with optimal positioning of the infant in kangaroo care			
p.	Privacy and relaxation are respected while parents do kangaroo care, with minimum interruptions.			
q.	The infant's stability is monitored during kangaroo care and position adjusted as necessary.			
r	The team strive to make it possible for kangaroo care to become a daily event.			
	Your score			
	Max score	36		
	Percentage: 100 ÷ 36 x your score			

8.5.2. STEP BY STEP GUIDE; SINGLE PERSON TRANSFER FOR SKIN TO SKIN

(*Demonstrated with a doll)*

1. Place a comfortable, reclining chair (with a pillow and a foot stool) or bed by the incubator. If available use a privacy screen or curtain
2. Ask the parents to expose their chest for positioning the infant.
3. Check all leads, lines, tubes and organize them at one point to be held easily during transfer. The infant should only wear a diaper for maximum skin exposure.
4. Explain to parents how they can help their infant to be organized; hand to face, sucking opportunities, cradling with hands or wrapping for transfer.
5. The parent stands beside the open incubator. Ask the parent to put one hand on the child and talk in a low voice to him/her.
6. Help the parents to keep contact with the child while slowly removing the supports around the child
7. Ask the parent to move the baby into a side lying position close to the side of the incubator Ttake the baby's position into account when you do the baby's care prior to kangaroo care, and wrap the baby ready for transfer. Make sure the wrap can be easily opened at the front for skin to skin kangaroo care.
8. The parent places the hands under the baby, supporting the head and trunk.
9. Ask the parent to bow towards the baby, bringing their body very close to the baby.
10. The parent slowly lifts the baby rom the bed directly to their chest, and places him/her in a prone or side position. The baby is completely contained by the parent's hands and body.
11. Remove the wrap during transfer to optimize skin exposure
12. Help parent to straighten up and guide him/her sit in the chair.
    Cover the infant and parent with a (pre-warmed) blanket or parent's clothes. Help the parent to get comfortable in the chair..
13. Give parents instructions how to contact the staff during kangaroo care and offer a small mirror so they can see their infants face if they want.

Picture to be inserted here

8.5.2. STEP BY STEP GUIDE: TWO PERSON TRANSFER FOR SKIN TO SKIN.

1. Bring a comfortable, reclining chair (with a pillow and a foot stool) or bed and position it near the incubator. If available provide a privacy screen or curtain.
2. Help the parent to get comfortably seated in the chair (pillow for the neck; foot stool)
3. Ask the parent to expose their chest for positioning the infant
4. Check all leads, lines, tubes and organize them at one point to be held easily during transfer.
5. Wrap the infant, who only wears a diaper, and place in a side lying position (nurse transfer) to the side of the incubator. In the care prior to kangaroo care you can already take into account the positioning of the baby.
6. Help the infant become organized: hand to face, offer sucking opportunities, cradling with your hands or boundaries.
7. Briefly silence the alarms during the transfer
8. If possible, disconnect the vent from the tube and transfer the infant to the parent's chest. If this is not an option, ask the second person to hold the tubing and guide it during transfer.
9. Support the infant gently into a flexed and contained position during the transfer. Move the infant very smoothly with minimal change between the horizontal to a vertical position. Use a swaddled blanket or position aid such as a snuggle for transfer
10. Place the infant in a vertical way (chest to chest) and help tuck the infant into the parent's top with the parent's hand under the infant's bottom and legs to support the flexed position.
11. Cover the infant and parent with a (pre heated) blanket or parent's clothes
12. Use tape to secure tubing and respiratory tubing to parent's clothing or the chair.
13. Give parent(s) instructions how to contact the staff during kangaroo care, when they are behind a curtain, a partition or in a single room
14. Give the parent a small mirror to use to see their infant's face if they want.
15. Make sure parents have a cold drink.

Pictures to be inserted

Week 9

CAREGIVING

This week you will consolidate your learning by assessing your own practice during one more episodes of daily caregiving. It can be helpful to work in pairs as you do this with one person doing the care while the other observes and gives feedback.

Ultimately your goal is for parents to confidently take over as much of the caregiving as possible. At first they may just want to watch their baby and to begin to understand and anticipate his response to his experience; active listening, sharing and reflecting on your observations together is an important part of your care for parent and baby. Then they may feel more confident about touching and comforting their baby with your reassurance.

Consider which caregiving activities may be the first that parents can take part in with confidence; activities that do not involve a lot of handling or movement, such as mouth cleaning (perhaps with a cotton bud dipped in breast milk) or giving a tube feed might be the first steps. When guiding parents through more complex activities such as a nappy change it may be helpful to use what is called a "backward chaining" technique. This means that the parent at first just finishes the activity and gradually works backwards to do more and more stages until they can start at the beginning and do it all. This approach can be a way to build confidence.

Some parents may have their own ideas about how baby care should be done. Bathing, for example, may be done in many different ways. Explore preferences with parents and see if you can modify activities to fit their ideas.

Competency

- Critically evaluates own developmental care practice
- Encourages and supports parent participation in infant care and comfort.
- Adjust the timing and pacing of caregiving in response to observation

9.1 DEVELOPMENT

Vulnerable infants, whether due to prematurity or other health issues, need highly sensitive caregiving. At first tolerance for caregiving will be low and they may need frequent pauses and comfort to regain energy and organisation. The concept of optimal care, pacing caregiving to the rhythm of the baby, responding to his behaviour is helpful to avoid stress, exhaustion, and instability. Very preterm infants are not ready to manage several hours of sleep at a time; as the infant matures and becomes more robust with more consolidated sleep, caregiving will fit more easily around the baby's own sleep wake pattern.

Preterm infants are often discharged home as early as 34 weeks when they would normally expect a further six weeks of healthy in-utero preparation for the world they will meet at home. They will continue to need very sensitive care at home, not just until their due date but often beyond. It is a common misconception that preterm babies need to be "normalized" by being treated like a term baby before they go home. Working alongside parents in the neonatal unit gives them opportunities not only to get to know their baby really well but also to work out strategies for caregiving that best suit them and their baby.

The parents' handbook "Caring for your Baby in the Neonatal Unit" Warren I, Bond C, 2014, can help parents to get to know their baby.

9.2 OBSERVATION.

9.2.1 This week you will consolidate your learning by assessing your own practice* during two episodes of caregiving using the OBSERVATION AND EVALUATION OF CAREGIVING worksheet, and step by step guides With every episode of care consider the Five Step Dialogue, see p 74.

Read the practical tip sheets:
9.2.1. Practical Tip: Step by Step Wrapped Bathing
9.2.2. Practical Tip: Wrapped Weighing
9.2.3. Practical Tip: Nappy Change.

9.2.4. If possible work in pairs, one of you doing the care while the other observes, and give each other feedback. The activities you choose to observe and evaluate can be with a parent or nurse doing an everyday activity such as

a. nappy change
b. wash
c. bath
d. weighing
e. inserting a feeding tube

*Professionals, e.g. some therapists, who are not usually involved in these activities will need to make arrangements to observe and participate in care with a nurse or parent.

9.3 FAMILY PARTICIPATION.

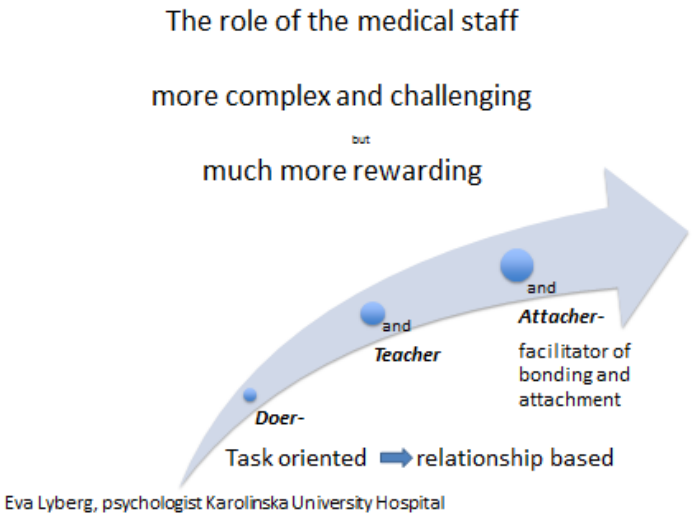
Ask parents which activities they have participated in. Did they feel well supported to participate in their baby's care? Did they feel that the timing was right? Did they feel that their own wishes were respected?

9.4 REFLECTIONS

How well did you think the care giving went? Did you, or the person doing the care giving seem to be tuned into and supportive of the baby? Did you feel that the baby was settled well at the end? Think back over it – what could have been done differently? Did you discuss the care giving with a colleague or parents? Do you think you that they saw the same things in the same way that you did?

9.5 SYSTEM CHANGE

By observing and involving parents at the earliest possible opportunity the role of neonatal nurses will change from task oriented "doers" to "attachers" who facilitate bonding and attachment. The caregiver will be in an ongoing dialogue with the infant, collaborates with the infant.



9.5.1. Complete the Site Assessment: CARE GIVING.

9.6 EVIDENCE

- Buehler DM, 1995 Effectiveness of individualized developmental care for low risk preterm infants. Behavioral and electrophysiologic evidence. *Pediatrics* 96 (5): 923-932

9.2.1. OBSERVATION AND EVALUATION OF CAREGIVING

(Adapted from Als H, 2006, NIDCAP Journal Page, NFI).

After an episode of caregiving take some time to reflect on what you observed and answer the questions below.

Date: Gestation at birth; Age since birth:

Level of care: ITU / HDU / SCBU / Other Caregiving observed:

What were the strengths of the environment and bedding?

What were the challenges in the environment and bedding?

How did the infant show strengths? (autonomic, motor, state, attention, self-regulation).

How did the infant show vulnerability? (autonomic, motor, state, attention, self-regulation).

What went well? How did the caregiver support the infant?

What were the challenges for the baby during the caregiving? When did the caregiver miss the infant's signs of vulnerability?

RECOMMENDATIONS

Based on what you have observed, what recommendations would you make to help the care go well for this baby next time? Explain each suggestion. What will be the benefit for the baby? For example will it help the baby to breathe more effectively, to keep his heart beat steady, to retain or regain energy, to make smoother movements, to be more organised in his efforts to self-regulate using his hands and feet, to settle to restful sleep or reach quite wakefulness? What else can you think of?

Nursery Environment

Bedside and bedding

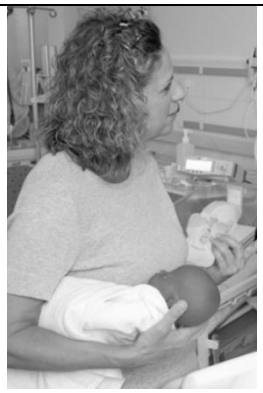
Interaction with the baby

Week 9: SITE ASSESSMENT: Caregiving

(For instructions see week 1)

	CAREGIVING	Strength	Change	Time
a.	All staff are willing to be flexible about caregiving routines, adapting them to suit the baby and family (if safe)			
b.	Staff are respected for adjusting routines in response to the baby's behaviour			
c.	The baby's day is planned collaboratively so that medical, nursing, social and other activities can be coordinated			
d.	Doctors and other professionals respect nurses' advice regarding timing of interventions			
e.	Staff understand doing care quickly is not necessarily easier for the baby			
f.	Staff always greet the baby and allow the baby time to adjust to change			
g.	Caregiving is carried out slowly and gently			
h.	Infants are offered periods of rest and recovery during or between interventions			
i.	Staff members often help each other out by lending an extra pair of hands to support the baby during interventions			
j.	People always let the baby know when they have finished a procedure and make the baby comfortable before leaving			
k.	Babies are always observed after interventions to make sure they settle			
l.	Continuity of care is considered when staffing allocations are made			
m.	Babies are wrapped for bathing if this is likely to be challenging for them			
n.	Babies are wrapped when being weighed			
o.	Foot bracing and grasping are always facilitated during caregiving and medical procedures.			
	Your score			
	Max score	30		
	Percentage; 100 ÷ 30 x your score			

9.2.1. A. Practical Tip: WRAPPED BATHING
NB. Bathing is essentially a parenting activity.



rehearse with a doll

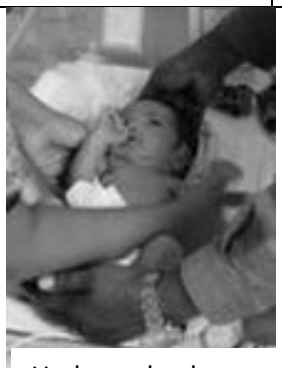
- Camera
- Clothing
- Towels
- When/where

Plan in advance

Set the scene Prepare everything you need

Watch: breathing & colour

Wake gently, if necessary



Undress slowly

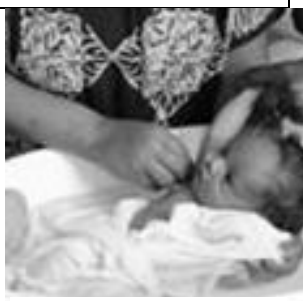
Wrap in soft sheet

Wash face then hair

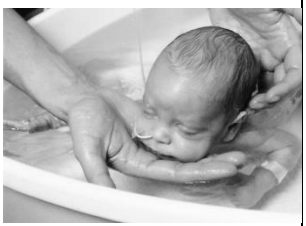
Re-check the water temperature

Reassure baby. Feet first into bath

Let feet brace against end of bath.



Unwrap one side at a time. Pause if



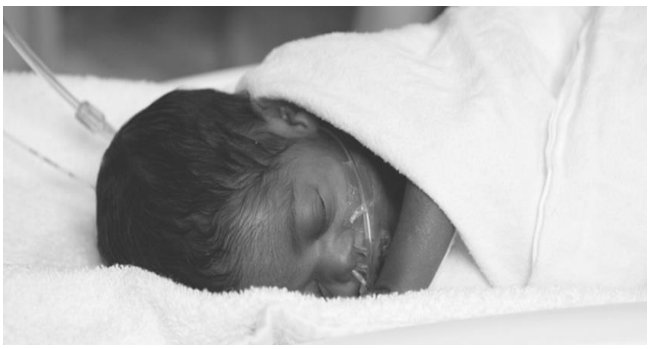
Onto front if baby has energy

Leave wrap in the bath and lift baby onto towel on

Wrap baby and give time to settle before dressing

Keep covered while dressing

9.2.1.B. Practical Tip Sheet: WRAPPED WEIGHING



1. Making a nest on the scales will help the baby to stay warm and comfortable while being weighed. Bedding and clothing need to be weighed separately, either before or after weighing the baby, and the weight adjusted accordingly.
2. Plan the time for weighing so that parents can attend.. They will always be interested to know if their baby is growing well. Consider planning skin-to-skin after weighing as the baby will already be undressed.
3. Select a flat, stable surface for the scales.
4. Collect the materials you will need, e.g. towel or blanket for base, nesting boundaries, clothing, wraps, clean nappy and weigh them.
5. Place a folded towel or blanket on the scales to make a soft base; arrange bedding to form a "nest" of a suitable size for the baby. .
6. Undress the baby, change his nappy and wrap him before lifting to the scales, moving very slowly. The baby may feel most relaxed if moved in the side position or close to your body.
7. Put the baby on the scales, make sure he is settled and cover him with a pre-weighed blanket.
8. Once the total weight has been determined subtract the weight of the pre-weighed bedding and clothing to get the baby's weight. (some scales can be automatically adjusted to zero to make this easier)
9. This is a good time for skin-to-skin as the baby will already be undressed.
10. If skin-to-skin is not planned and the baby is comfortably settled you may want to let him rest there for a few minutes while you change the bedding, if necessary.
11. Slowly transfer the baby wrapped back to bed. You may be able to lift the baby in his nest and install that on the fresh bedding.

Pictures to be inserted

9.2.1.C. Practical tip: NAPPY CHANGE

Week 10:

MEDICAL PROCEDURES

While some medical procedures are urgent, others may, with careful planning, be carried out to fit around the baby's needs to rest and digest food, to have time with their parents. Some procedures can be carried out most sucessfully with the baby held by the parents; for example some ophthalmologists will examine stable babies on the parent's lap, and some doctors or nurses will do blood sampling during kangaroo care, which has been shown to reduce the pain response. It is important to ask the parent if they feel confident with the situation.

Competency

- Critically evaluates management of distressing procedures
- Supports parent participation in infant care and comfort.

10.1 DEVELOPMENT

During hospitalization a variety of medical procedures may be required, many of which can be distressing for the baby. Most of these essential procedures will not be emergencies (e.g. insertion of long lines, removal of lines or changing infusions under sterile conditions), so it is possible to perform them under controlled conditions. The number of procedures needed will be greatest during intensive care and this will also most likely be the time when the baby has not yet developed clear sleep wake cycles and is most vulnerable. During this time it is particularly important to allow periods of rest between episodes of caregiving or procedures to avoid accumulative distress and exhaustion. As the baby matures and becomes more robust, sleep will become more organized and it will be easier to tell which moments are most convenient for the baby.

10.2 OBSERVATION.

10.2.1. This week you will use your experience from previous sessions to observe a baby during a procedure that is likely to cause discomfort or distress, using the Activity Assessment worksheets, and step by step guides:

- Practical tip : Support during ROP screening
- Practical tip: Suction

10.2.2 Procedures that would be suitable for observation include.

- blood sampling,
- ETT suction,
- eye exam,
- cannulation

10.3 FAMILY PARTICIPATION.

You will ask parents about their feelings about their baby's comfort and discomfort. You can explore with them their thoughts about whether or not they prefer to be present during procedures and how they might help their baby.

10.4 REFLECTIONS

How well did you think the preparation for the procedure went? Did you, or the person performing the procedure seem to be tuned into and supportive of the baby? How did it go? Did you feel that the baby settled well at the end? Think back over it - what could have been done differently?

Did you discuss the event with a colleague/ or parents? Do you think that they saw things in the same way that you did?

10.5 SYSTEM CHANGE

Raising awareness of the impact of procedures on babies may lead to a team effort to reduce the number of routine procedures, and lead to some innovative solutions.

With a high turnover of junior doctors it can be difficult to keep up with training to manage procedures. The EVIN scale, Week6, p 82, is one way to do this.

-

10.6 EVIDENCE

Kleberg A1, Warren I, et al, 2008 Lower stress responses after Newborn Individualized Developmental Care and Assessment Program care during eye screening examinations for retinopathy of prematurity: a randomized study. *Pediatrics.* 121(5):e1267-78

OBSERVATION: MEDICAL PROCEDURE:

(Adapted from Als H, 2006, NIDCAP Journal Page, NFI.
After an episode of caregiving take some time to reflect on what you observed and answer the questions below.

Date: Gestation at birth Age since birth

Level of care: ITU / HDU / SCBU / Other Procedure observed:

What were the strengths of the environment and bedding?

What were the challenges in the environment and bedding?

What signs of the infant's strengths did you observe? (autonomic, motor, state, attention, self-regulation)

What signs of the infant's vulnerability did you observe? (autonomic, motor, state, attention, self-regulation)

What went well for the infant? How did the caregiver support the infant?

What were the challenges for the baby during the procedure? When did the caregiver miss the infant's signs of vulnerability?

How distressing did you think this procedure was for the infant?

Not at all distressing 1 2 3 4 5 6 7 8 9 Very distressing

How easy was it for the person performing the procedure to complete it successfully?

Very easy 1 2 3 4 5 6 7 8 9 Very difficult

RECOMMENDATIONS

Based on what you have observed, what recommendations would you make to help a procedure go well for this baby next time. Explain each suggestion. What will be the benefit for the baby? For example will it help the baby to breathe more effectively, to keep his heart beat steady, to retain or regain energy, to make smoother movements, to be more organised in his efforts to self-regulate using his hands and feet, to settle to restful sleep or reach quite wakefulness? What else can you think of?

Nursery Environment

Preparation

Interaction and co-regulation of the baby

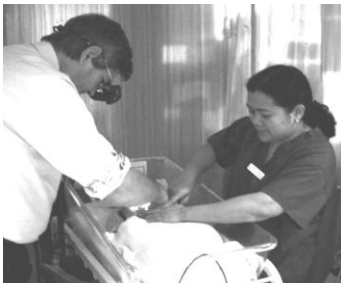
Teamwork

Practical Tip: SUPPORT DURING ROP SCREENING.

1. Tell parents in advance when the exam will be done and give them an information sheet.

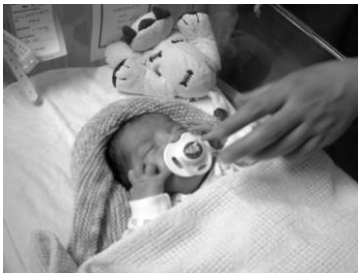
2. Tell them what will happen and encourage them to be with their baby. If they will be present explain how they can comfort their baby. **Some ophthalmologists will be willing to exam in the baby while in the parents' arms.**

3. The nursery should be quiet and calm for the exam and recovery. Shade is important after drops to dilate pupils.



4. Make sure that someone is available to support the baby throughout the eye exam, preferably the parents.

5. Administer sucrose 2 mins before exam and offer soother

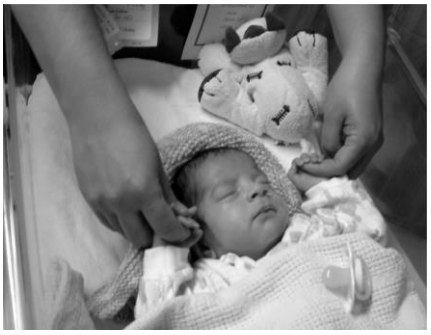


6. Position the baby so that

- feet can be braced against nest or end of bed
- blanket is tucked around baby to swaddle, with hands free
- head is encircled and stabilised with a blanket roll.

7. Approach the baby gradually – talk first, then gentle touch before intervention.

8. Encourage the baby to grasp your fingers with the hands near face. Some babies like to clasp hands together or rest them on their head.



9. Facilitate sucking, if the baby wishes, before he/she becomes aroused.

10. Talk soothingly .

11. Pace the exam with time out if HR > 200 or other stress signs such as poor colour, flaccid tone, long pauses in breathing, oxygen saturations below 85% , occur.

Allow a pause between examining the first and second eye.

12. After the exam comfort and reassure the baby.

13. Reposition on side or, if struggling with breathing, on the front.

14. Avoid other procedures for at least one hour – longer if possible. Some babies will be more sensitive than usual for the rest of the day. Avoid any other major events for the rest day if possible.

15. Protect from light - pupils may be dilated for >12 hrs.

16. Make sure that parents are given the results of the examination.

Practical tip: SUCTION

- Invite parents to support the baby e.g. holding, help with sucking, grasping
- Make sure that you have everything ready at the bed side so you can give the baby your full attention.
- Consider possibility of baby being supported on the parents lap.
- Use your voice and still touch to prepare the baby
- Offer a pacifier to encourage self-regulatory sucking during suction
- If the baby cues are negative, try to give him a pause, wait and watch to ensure that the baby is settled. If needed, proceed after settling.
- After suction provide comfort for the baby. Stay with the baby until settled.

Consider most comfortable position for the baby. Side lying is likely to be preferred.

Help the baby with self-regulation:

- arms tucked in with hands near the face
- legs folded
- surface for foot bracing.

Consider positioning the baby in a nest surrounding his whole body.

WEEK 11:

FEEDING

Feeding requires co-ordinated sucking, swallowing and breathing; it is an activity that depends on stable, effective breathing. For premature babies this is often challenging

Feeding needs co-regulation from the care giver, who needs to know what to look for before starting the feed, during the feed and after the feed. It takes patience and knowledge to feed an infant successfully.

Infants need careful observation in order to understand their readiness to cope with this challenge

This week's assignments will help you to assess the infant's readiness for feeding. By observing the baby's behaviour before, during and after feeding you will learn what factors affect the enjoyment and success of the feed. This will help you to make appropriate feeding plans.
Eating and drinking are important parts of family and social life; even for the smallest baby communication is as important as nourishment during feeds.

Competency

- Able to assess infants readiness to feed successfully and comfortably
- Aware of factors that affect feeding comfort and efficacy

ASSIGNMENTS WEEK 1 INTRODUCTION.

11.1 DEVELOPMENT

Gestation	Feeding development
8 weeks	Sensitive around the mouth area.
15 weeks	Swallows amniotic fluid. Hand to mouth. Sucks thumb.
24 weeks	Non-nutritive sucking
26 weeks	Gag reflex
28 weeks	May nuzzle at breast and lap at nipple.
30 weeks	Some babies can attach to the breast.
32 weeks	Roots (search for the nipple). May latch on to and suck breast with short sucking bursts.
34–36 weeks	Periodic sleep-wake pattern emerges with arousal for feeding. Co-ordinated suck swallow breath. Several sucks per swallow.
37 weeks	Strong rooting and mature suck-swallow-breathe patterns (1:1:1).

Breastfeeding is linked to a lower risk of health problems	
In Infants	In Mothers
Ear infections	Type 2 diabetes
Stomach viruses	Breast cancer
Respiratory infections	Ovarian Cancer
Atopic dermatitis	Postpartum depression
Obesity	
Type 1 and 2 diabetes	
Sudden infant death syndrome (SIDS)	
Necrotizing enterocolitis	
Less diarroehea	

Diagram of breast feeding Road Map Wheel to be inserted here

11.2 OBSERVATION.

11.2.1 You will observe a

a) tube feed

b) breast or bottle feed

and will complete a feeding observation worksheet for each.

11.2.2. You will do the Feeding Readiness Assessment on 5 babies before a breast or bottle feed.

11.3 FAMILY PARTICIPATION.

You will ask parents about their experiences and expectations of feeding their infant and reflect on this in your weekly notes.

11.4 REFLECTIONS

How did you feel about the feeding observations that you made this week? Did you ask the parents about their baby's feeding and if it was what they expected? Did the parents know what to expect next –the different steps the baby goes through until they can feed competently? Do they feel that their own wishes were respected? Do they feel well supported with respect to feeding?

What is your attitude to breast feeding and what is that based on?

11.5 SYSTEM CHANGE

1.5.1 You will complete the SITE ASSESSEMENT FEEDING PRACTICES checklist
1.5.2. Find out about your unit's policy on breast feeding, and work out average monthly success rates. Breast feeding success is enhanced by close, continuing skin to skin contact between mother and infant, effective breast milk expression, peer support in hospital and community, multidisciplinary staff training, and UNICEF Baby Friendly accreditation. (Renfrew et al 2010)

11.6. EVIDENCE

- Thoyre SM, Shaker CS, Pridham KF, 2005, The Early Feeding Skills Assessment for preterm infants *Neonatal Network* 24(3):7-16

- Nyqvist KH, 2008, Early attainment of breast feeding competence in very preterm infants, *Acta Paediatrica*, 97:776-781

Reference

Renfrew MJ, et al, 2010, Breastfeeding promotion for infants in neonatal units: a systematic review. *Child Care Health Dev*. 36(2):165-78

Make sure that all your reflections for week 7 to 11 have been sent to your mentor.

OBSERVATION OF FEEDING: TUBE FEED

Use this worksheet to record your observations, reflections and ideas about an episode of tube feeding that you carry out or observe.

Baby's gestation at birth: Gestational age at observation:

Date: ..... Time and place observed:

a) Describe fixing and size of feeding tube.

b) Who fed the baby? Mother, father, nurse, other?

c) What type of food and how much was offered? E.g. type of milk, volume, additives

d) Baby's expected feeding routine:

e) Environment

NOISE: describe		
Very quiet	1….2....3....4….5....6….7….8….9....	Very noisy
LIGHTING: describe		
Very bright	1....2....3….4….5....6....7….8....9...	Very dark
ACTIVITY: describe		
Very busy	1….2….3....4….5….6....7....8....9...	Very little activity
PRIVACY: describe		
Private	1….2....3….4….5….6….7....8….9...	Very public

f) Describe baby before feed

* Breathing, * Colour
* Oxygenation * Heart rate

* Muscle tone. * Facial expression.

* Was the baby stirring / drowsy / awake alert / awake fussy / crying ?

g) Was baby in incubator, cot or held.

h) Position: describe how the baby was held.

i) How was the baby prepared for feed?

j) Was the caregiver seated comfortably? Describe.

k) Was the person giving the feed interrupted?

l) Describe the baby during the first part of the feed,

* Breathing, * Colour

* Oxygenation * Heart rate

* Muscle tone. * Facial expression

* Behavioural state: alert, drowsy, active, distressed, asleep

* Sucking pattern.

m) Describe the baby during the last part of the feed,

* Breathing, * Colour

* Oxygenation * Heart rate

* Muscle tone. * Facial expression

* Behavioural state: alert, drowsy, active, distressed, asleep

* Sucking pattern.

n) Describe the baby after the feed had ended.

* Breathing,
* Oxygenation
* Muscle tone.
* Facial expression
* Heart rate
* Colour
* Sucking
* Behavioural state: alert, drowsy, active, distressed, asleep

o) Did you observe any of the following?

- Gagging
- Vomiting
- Sounds of regurgitation
- Straining
- Squirming
- Flushing
- Pallor
- Arching
- Grimacing
- Stiffness
- Pained crying
- Choking
- Passing wind
- Burping
- Low tone; loss of energy

p) Was baby helped to bring up “wind” (burp).and if so how?

q) COMMENTS/ REFLECTIONS

* Did you think that the baby’s mother (caregiver) felt confident about the feed? (Explain)
* Do you think that the feed was rewarding for the mother (caregiver)? (Explain)
* Do you think that the feed was enjoyable for the baby? (Explain)

SUGGESTIONS

Based on this episode of feeding what would you suggest to make feeding go well for this baby and parents?

1. Timing

2. Nursery environment

3. Preparation

4. Mother's (father's or nurse's)position

5. Baby's position

6. Speed and Pacing

7. Interaction during feed

8. Winding

9. Aftercare

10. Other

OBSERVATION OF FEEDING: BREAST OR BOTTLE

Use this worksheet to record your observations, reflections and ideas about an episode of breast or bottle feeding that you observe.

Baby's gestation at birth: Gestational age at observation:

Date: ..... Time and place observed:

a) Feeding mode: breast; bottle; combination of ……..: other

b) Who fed the baby? mother, father, nurse, other

c) What type of food and how much was offered? E.g. type of milk, volume, additives

d) Baby's expected feeding routine:

e) Environment

NOISE: describe		
Very quiet	1….2....3....4….5....6….7….8….9....	Very noisy
LIGHTING: describe		
Very bright	1....2....3….4….5....6....7….8....9...	Very dark
ACTIVITY: describe		
Very busy	1….2….3....4….5….6....7....8....9...	Very little activity
PRIVACY: describe		
Private	1….2....3….4….5….6….7....8….9...	Very public

f) Describe baby before feed e.g. see Feeding Readiness Assessment

* Breathing, * Colour
* Oxygenation * Heart rate
* Muscle tone. * Facial expression.
* Was the baby stirring / drowsy / awake alert / awake fussy / crying ?

g) What was the baby wearing?

h) Position: describe how the baby was held.

ii) How was the baby prepared for feed?

j) Was the caregiver seated comfortably? Describe.

k) Was the feed interrupted?

l) Describe the baby during the first part of the feed,

* Breathing, * Colour
* Oxygenation * Heart rate
* Muscle tone. * Facial expression
* Behavioural state: alert, drowsy, active, distressed, asleep
* Sucking pattern.

m) Describe the baby during the last part of the feed,

* Breathing, * Colour
* Oxygenation * Heart rate
* Muscle tone. * Facial expression
* Behavioural state: alert, drowsy, active, distressed, asleep
* Sucking pattern.

n) Describe the baby after the feed had ended.

* Breathing, * Colour
* Oxygenation * Heart rate
* Muscle tone. * Facial expression
* Behavioural state: alert, drowsy, active, distressed, asleep

o) Did you observe any of the following?

- Gagging
- Vomiting
- Sounds of regurgitation
- Straining
- Squirming
- Flushing
- Pallor
- Arching
- Grimacing
- Stiffness
- Pained crying
- Choking
- Passing wind
- Burping
- Low tone; loss of energy

p) Was baby helped to bring up "wind" (burp) and if so how?

q) COMMENTS/ REFLECTIONS

* Did you think that the baby's mother (caregiver) felt confident about the feed? (Explain)

* Do you think that the feed was enjoyable for the mother (caregiver)? (Explain)

* Do you think that the feed was enjoyable for the baby? (Explain)

* How did you feel the feed went?

SUGGESTIONS

Based on this episode of feeding what would you suggest to make feeding go well for this baby and parents?

1. Timing

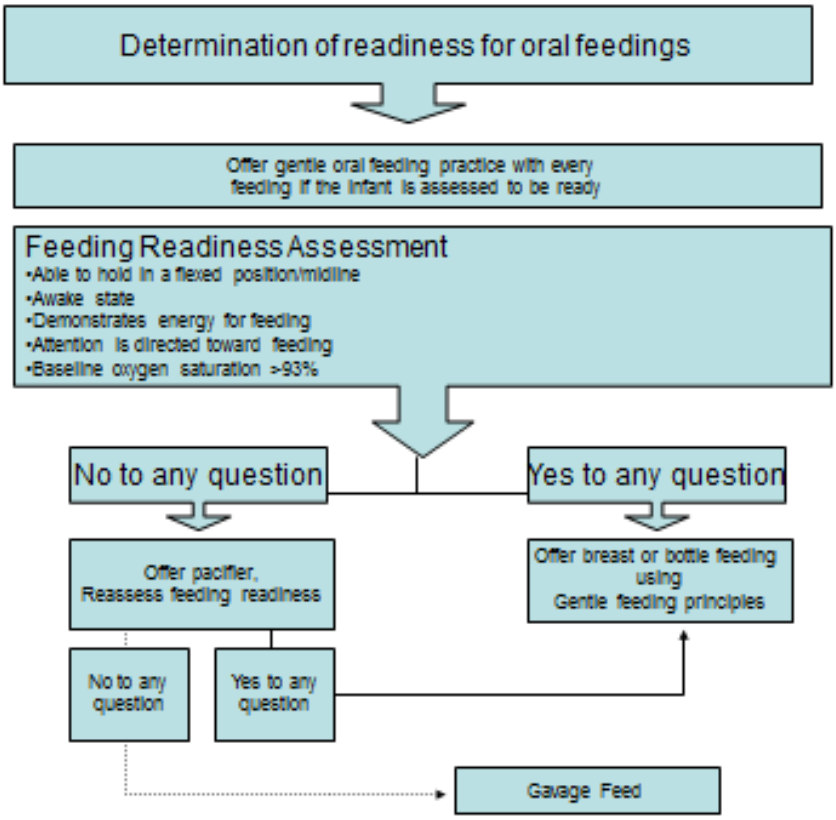
2. Nursery environment

3. Preparation

4. Mother's (father's or nurse's) position

5. Baby's position
6. Speed and Pacing
7. Interaction during feed
8. Winding
9. Aftercare
10. Other

11.2.2. ASSESSMENT of READINESS for FEEDING (Adapted from Thoyre et al 2005)



4 KEY QUESTIONS

- Can the infant keep a flexed posture with midline orientation?
- Is the infant awake?
- Does the infant show enough energy to feed?
- Is the infant's attention directed towards feeding?

A NO to any of these questions tells you the infant is not ready to feed.

	Baby 1	Baby 2	Baby 3	Baby 4	Baby 5
Can the baby keep a flexed posture with midline orientation?					
Is he / she awake?					
Does he / she have enough energy to feed?					
Is the infant's attention directed towards feeding?					

Week 11: SITE ASSESSMENT: Feeding

	FEEDING PRACTICES	Strength	Change	Time
a.	Feeding readiness is assessed and explained to parents			
b.	Attempts are made to structure a supportive atmosphere during feeding i.e. quiet and calm			
c.	Staff provide consistent information about feeding			
d.	Feeding plans are made with the family, are revised daily and are adhered to			
e.	Staff do not convey negative attitudes about breast feeding			
f.	Staff do not convey negative attitudes about mother's choice of feeding			
g.	Bottle fed babies are held lovingly during feeding			
h.	Babies are encouraged to grasp during feeding			
i.	Demand feeding is encouraged and feeding is infant led			
j.	Expert advice is available when feeding problems arise			
k.	A side lying position with elevated head is used as needed for bottle fed babies.			
	Your score			
	Max score	22		
	Percentage: 100 ÷ 22 x your score			

THE GOALS AND BENEFITS OF DEVELOPMENTAL CARE

Staff survey

The many benefits of developmental care are not always well understood. The purpose of this survey is to raise awareness of these many benefits and to encourage people to consider what might be their priority goals.

Ask at least 4 colleagues, preferably from different backgrounds and in different roles, and 2 parents, to pick out the three evidence based benefits that they value the most. It could be interesting to do this with the whole of your team to see if there is consensus about what you hope to achieve.

THE GOALS AND BENEFITS OF DEVELOPMENTAL CARE

"Developmental care" encompasses many strategies for which there is empirical evidence of success. Please select the three that you think would be most useful and beneficial.

1. IMPROVED PHYSIOLOGICAL STABILITY
Characteristics of the environment, the way we handle and position babies, the timing and pacing of interventions, and the baby's own activity (e.g. movement, crying) affect physiological stability. Developmental care can adapt care to improve physiological stability.

2. REDUCED STRESS AND PAIN
A range of non-pharmacological strategies are effective in reducing stress/pain during procedures, can aid recovery after procedures, help with the management of ongoing pain and reduce need for medication.

3. IMPROVED FEEDING
Developmental care can improve breast feeding success and energy conservation for growth. It can help to avoid aversive feeding disorders.

4. IMPROVED SLEEP PATTERNS
Developmental care can help to improve sleep patterns, which are important for neurodevelopment and growth.

5. APPROPRIATE SENSORY EXPERIENCE
Interference with expected sensory stimulation has a negative impact on brain wiring. Developmental care can provide developmentally appropriate sensory experience.

6. PROTECT POSTURAL DEVELOPMENT
Developmental care can help to prevent acquired postural deformities that have a negative impact on appearance and/or development.

7. CONFIDENT PARENTING
Developmental care supports parents and helps them to feel closer to their baby, and more confident in themselves and in the care we are giving. Helping parents to understand their baby's behaviour can lead to better outcomes.

8. STAFF SATISFACTION
Neonatal units that have adopted developmental care report high levels of staff satisfaction.

9. BETTER DEVELOPMENTAL OUTCOMES
Shorter hospital stay and better developmental outcomes in the early years have been achieved with individualised developmental programmes such as the NIDCAP.

Week 12:

EVALUATION

Between weeks 11 and 12 you may need an extra week or two to complete your assignments and submit your course work.

- This week you will meet your mentor/course leader to review the course and to share your experiences.
- You will discuss the impact of your work on the system and your team; and strategies for managing change.
- You will plan your next steps
- You will complete a case study assessment.
- You will complete the evaluation form and stressor scale provided by your mentor/course leader.
- Your course leader will follow this up with personal feedback in a letter.

12.1 DEVELOPMENT

You may be asked to answer questions about a written case history that follows a baby's progress at different stages of development.

12.2 OBSERVATION.

As part of your assessment you will do an observation from a video of caregiving and answer questions.

12.3 FAMILY PARTICIPATION.

You will discuss the impact of the course on your relationships with families-

12.4 REFLECTIONS

You will reflect on your experience of the course with your group.

12.5 SYSTEM CHANGE

The implementation of developmental care demands that staff have opportunities to develop and practice their skills. A developmental care team, designated champions and supportive management make a difference. Developmental care needs to be incorporated in policy and philosophy.

12.5.1. You will complete the SITE ASSESSEMENTS: STAFF SUPPORT AND DEVELOPMENT, and NURSERY VALES checklist on p 133-134

12.5.2. Read Managing Change - Step by Step, p 135.

12.5.3 You will make an action plan for your own next steps and for supporting family centred developmental care on your unit.

12.6 EVIDENCE

Douglas P et al, The unsettled baby: how complexity science helps. Arch Dis Child 96(9): 793-7
-

WEEK 12: SITE ASSESSMENT: Staff Support and Nursery Values

The implementation of family centred developmental care demands that staff have opportunities to develop and practice their skills. A developmental care team, designated champions and supportive management make a difference. Developmental care needs to be incorporated in policy and philosophy.

	STAFF SUPPORT AND DEVELOPMENT	Strength	Change	Timeline
a.	There is a Developmental Care Team to plan and evaluate practice			
b.	A library of papers, books and videos about Developmental Care is available.			
c.	Developmental Care is a topic at journal clubs/team days etc			
d.	There are regular in-service training sessions to keep people up to date with their developmental care practice			
e.	All disciplines and all grades are offered in-service education g (including ancillary staff) about Developmental Care			
f.	Education in Developmental Care is part of induction for all new medical and nursing staff			
g.	Funding is available for staff to attend study days/ conferences, related to Developmental Care			
h.	One or more developmental leaders / champions have designated posts with time allocated exclusively for Developmental Care			
i.	The neonatal team includes occupational therapist, speech and language therapist, physiotherapist and psychologist.			
j.	Training in communication skills is available			
k.	Medical staff collaborate with Developmental Care			
l.	Developmental Care is part of the daily care plan			
m	Developmental Care is not optional – all staff are expected to participate			
n.	Staff give each other encouragement and positive feedback re: Developmental Care practice			
o.	Developmental Care is included in the unit philosophy and policies			
p.	Developmental Care is included in each member of staff's personal review			
q	Developmental care plans are reviewed at a weekly developmental care round			
	Your score			
	Max score	34		
	Percentage: 100 ÷ 34 x your score			

	NURSERY VALUES	Strength	Change	Timeline
a.	The relationship between parents and baby is viewed as a high priority			
b.	Developmental Care is not regarded as a soft option to be delegated to people who are not good at high tech care			
c.	Developmental Care skills are valued by all members of the team			
d.	Developmental Care skills improve the standing of staff members			
e.	Developmental Care is not a source of conflict between staff			
f.	Babies are viewed positively and are never referred to as lazy or naughty			
g.	Parents are not labelled as difficult when staff find their coping strategies challenging			
h.	Developmental care is perceived to improve working conditions and job satisfaction			
i.	Staff members do not show bias towards parents of their own, or the dominant ethnic group.			
	Your score			
	Max score	18		
	Percentage: 100 ÷ 18 x your score			

MANAGING CHANGE – STEP BY STEP.

When you find something that you want to change you will most likely be successful if you follow the following tips.

1. Never do it on your own. They will just think you are someone with a bee in your bonnet. Make sure there is a groundswell of interest. Get agreement from the Developmental Care Team or the support of key members of staff. If you don't have a developmental care team that can be your first change.
2. Write a short proposal, not more than 1 ½ sides of A4 (nobody wants to reads long documents so keep it short – use bullet points), and clearly state the following
    - What you want to do
    - Why you want to do it
    - The evidence that supports your idea with full references cited.
    - What you perceive to be the benefits
    - What you need to make it work and where you plan to get resources from.
    - What you see as the challenges or precautions
    - How you will manage these.
    - How you might evaluate the change
    - Then leave space on the page for feedback and circulate this to everyone on the team – and that means EVERYONE. Ask them to let you know what they think and if they have any suggestions. Give a closing date and address for returning the forms.

4. It is very important that everyone feels included and consulted, has an opportunity for their views to be expressed, and to participate if they want to.

5. When you have considered the feedback and suggestions you may need to modify your proposal – perhaps you will not achieve everything that you hoped to achieve at this stage.

6. Submit the revised proposal to the senior staff meetings to see if it can be accepted as standard practice or policy. Make final changes if necessary. Make sure that everyone knows the result and thank them for their help (notice boards, team meetings).

7. With the Developmental Care Team decide on a review date, make your evaluations/audit and feedback to the team with a request for any modifications that might be needed.

Warren I, 1993, An introduction to protocols for occupational therapy, BJOT, 56(1):25-27

Practical Skills for Family Centred Developmental Care
ASSESSMENT AND COURSE EVALUATION

ASSESSMENT of your course work will include

1. Evidence that all the assignments have been completed.
2. Review of the reflective diary
3. A test based on a video scenario (or written case history)
4. Completion of course evaluations (see below).

You will have submitted your reflections for Part 1 to your mentor at the mid-way point. At the end of the 11th week please do the same with the reflections from Part 2.

You are not required to send your folder of worksheets but your mentor will want to see these at your final meeting.

EVALUATION OF THE COURSE

We would like feedback that will help us to evaluate the course. You will be asked to complete the following.

1. The Stressor Scale: before and at the end of the course.
2. A Self-Assessment at the end of the course.
3. An evaluation of readings.
4. The form for evaluating the course materials and organisation.

Infant Stressor Scale

- This scale asks you to record your perceived levels of stress for the baby, and for yourself as caregiver or observer, during procedures.
- Score each procedure on a scale of 1 to 5 with 5 being the most stressful.
- You will score this before you begin the course. Please bring the completed sheet with you to your introduction day.
- You will also be asked to score it at the end of the course.

Name:

Professional role:

Years of experience with neonates:

Hospital:

Pre-course □ Date:

Or

Post-course □ Date

Adapted from Newnham CA, Inder TE, & Milgrom J, 2009. Measuring preterm cumulative stressors within the NICU: the Neonatal Infant Stressor Scale. *Early Human Development*, *85*(9), 549–55. doi:10.1016/j.earlhumdev.2009.05.002

Infant Stressor Scale	Stress level for infant					Stress level for you.				
	1	2	3	4	5	1	2	3	4	5
Nursing										
Nappy change										
Position change										
Removal from incubator/bed (wrapped)										
Removal from incubator/bed (unwrapped)										
Mouth care										
Eye cleaning										
General wash										
Being weighed										
Suctioning nose and mouth										
Bath (wrapped)										
Bath (unwrapped)										
Peripheral venous access										
Insertion of IV										
Multiple attempts at insertion										
Removal of IV										
IV flushing										
Peripheral arterial access										
Insertion of IA catheter										
Multiple attempts at insertion										
Removal of IA catheter										
Sampling e.g. blood gas										
Central vascular access										
Insertion of UAC/UVC										
Multiple attempts at insertion										
Removal of UAC/UVC										
Insertion of percutaneous long line										
Ventilation										
Intubation										
Insertion of Nasal CPAP tube										
Receiving Nasal CPAP										
Suctioning of ETT tube										
Nutrition										
Insertion of NGT										
Stomach aspiration via NGT										
Intermittent NGT										
Gavage feed										
Bottle feed										
Cup feed										
Breast feed										
Medical procedures										
Insertion of chest drain										
Lumbar puncture										
Heelsticks										
Venepuncture										
ROP screening										
Radiology										
Cardiac echocardiogram										
ECG										
Ultrasound										
CT/MRI										
X-ray										

SELF ASSESSMENT QUESTIONNAIRE (post-course) (Adapted from Robison….)

Reflect on your current practice and circle the number which reflects how much your practice has changed since you started the "Practical Skills" course.

The Environment		A lot	Moderately	A little	Not at all
1.	I respond promptly to alarms and correct the cause of the alarm before leaving the bedside.	1	2	3	4
2.	I speak in a soft voice in the nursery.	1	2	3	4
3.	I avoid disturbing the baby as much as possible while I prepare for caregiving e.g. being careful not to jiggle the bed, closing doors and drawers carefully, taking care with ripped packaging.				
4.	I keep lighting subdued to support the infant's sleep and efforts to become alert.	1	2	3	4
5.	When bright over-bed light is necessary, I protect the infants' eyes.	1	2	3	4
6.	I avoid potentially overwhelming visual (e.g. bright light, strong patterns) and auditory (e.g. radio, loud talking) stimulation that might interfere with sleep, efforts to reach quiet alertness and be attentive.	1	2	3	4
7.	I make efforts to make the baby's bed area welcoming for parents e.g. with comfortable seating and soft lighting.	1	2	3	4
8.	I avoid exposing the baby to noxious odours such as alcohol wipes and hand gel e.g. by letting gel dry before approaching the baby.	1	2	3	4
Timing, Organizing and Giving Direct Care					
1.	If there is a developmental care plan I read it and follow it.	1	2	3	4
2.	If I see an infant who is distressed or disorganized, I quickly help him/her to settle, regardless of his/her "schedule" or "assigned" care-giver.	1	2	3	4
3.	I stay tuned to infants in my care, and am flexible about care-giving in order to protect restful sleep.	1	2	3	4
4.	I avoid doing any exam, procedure, treatment, or feeding to a sleeping baby.	1	2	3	4
5.	If it is necessary to awaken a sleeping baby I approach the baby gently with a soft voice and gentle touch, to help him/her to adjust in an organised way.	1	2	3	4
6.	I collect everything I need before I start caregiving so that I can give the baby my full attention throughout.	1	2	3	4
7.	I strive to make all feeding experiences pleasant for the baby.	1	2	3	4
8.	I recognize and support the *infant's own efforts* to keep him/herself stable and organized.	1	2	3	4
9.	If an infant becomes disorganized in spite of my careful handling, I provide a "time out", and help the infant to recover before continuing.	1	2	3	4
10.	After care-giving I stay with the infant until I am sure that he/she is settled before I leave the bedside.	1	2	3	4

Working Collaboratively		A lot	moderately	A little	Not at all
1.	If an infant needs an exam or procedure performed by another person, I respectfully discuss the best time for this, then stay with the baby to provide support throughout the exam or procedure.	1	2	3	4
2.	I plan with the other person how we will support the baby before we begin.	1	2	3	4
3.	I will adjust my caregiving to accommodate other procedures in order to avoid disturbing the baby.	1	2	3	4
4.	I seek another person to support the infant during potentially stressful experiences, including common things like bathing and weighing.	1	2	3	4
5.	I willingly make myself available to my colleagues to provide support for infants in their care during potentially stressful procedures.	1	2	3	4
6.	I consistently share information about infants' behavioural responses, their strengths and signs of sensitivity, during rounds or shift changes.	1	2	3	4
	Supporting Family Relationships				
1.	My manner towards families is warm, respectful and welcoming.	1	2	3	4
2.	I model sensitive and supportive care giving for families.	1	2	3	4
3.	I show genuine interest in the family's experience, and respect their central role in the life of the child.	1	2	3	4
4.	I help families to understand and support their babies' behavioural and developmental goals from the time of delivery.	1	2	3	4
5.	I welcome and support families consistently at all times of the day or night.	1	2	3	4
6.	I plan the day with parents so that they can be available for caregiving and other events where they can take part in their baby's care as they wish.	1	2	3	4
7.	I guide parents to become confident in supporting their baby during potentially stressful procedures.	1	2	3	4
8.	I reserve parenting activities (e.g. bathing) for parents.	1	2	3	4
9.	I explore every family's interest in skin-to-skin holding, and make myself available to support skin-to-skin according to the family's needs.	1	2	3	4
10.	I help parents to get to know their baby through shared observations and listening to their thoughts about their baby.	1	2	3	4
11.	I explore the parent's and baby's readiness to interact with each other enjoyably and set the scene for successful interactions.	1	2	3	4
12.	I explore opportunities to include and support siblings.	1	2	3	4
13.	Families see that I treat all infants with the support and respect they would want for their own child when they are not around.	1	2	3	4

Evaluation of papers included for reading

	Paper	Not useful	Fairly useful	Very useful
1	Als, 2004, Individualised care for preterm infant.			
2	Cleveland, 2008, Parenting in the Neonatal Intensive Care Unit			
3	Altimier and Phillips, 2013, The Neonatal Integrative Developmental Care Model			
4	Flacking et al, Closeness and separation in neonatal intensive care			
5	Westrup, 2014, Family centred developmentally supportive care			
6	Crathern, 1998, Steps to reflective growth			
7	White R et al, 2013, Recommended NICU design standards and the physical environment of the NICU.			
8	Limperopoulos C, et al 2008, cerebral dynamic changes during intensive care of preterm infants			
9	Coughlan M, et al, 2012, Reliability and effectiveness of an infant positioning assessment tool			
10	Sweeney and Guttierez, 2002, Musculoskeletal implications for preterm positioning			
11	Graven SN, Browne JV, 2008, Sleep and brain development			
12	VandenBerg K, 2007, State systems development			
13	Lynn et al, 2011, Self-regulation			
14	Als et al, 2004, Early experience alters brain function and structure			
15	Peters et al, 2009, Improvement of short and long term outcomes for very low birthweight infant: Edmonton NIDCAP trial.			
16	Meek, 2012, Options for procedural pain			
17	Vinall J, Grunau RE, 2014, Impact of repeated procedural pain-related stress in infants born very preterm.			
18	Smith et al, 2011, Neonatal intensive care unit stress is associated with brain development			
19	Lundqvist, Kleberg et al, 2014, Development and psychometric properties of the Swedish ALPS-Neo pain stress assessment scale.			
20	Nyqvist et al, 2010, State of the art Kangaroo mother care in a high tech environment,			
21	Kledzik, 2005, Holding the very low birth weight infant: skin-to-skin techniques,			

22	Buehler et al, 1995, Effectiveness of individualized developmental care for low risk preterm infants			
22	Kleberg et al, 2008, Lower stress response after NIDCAP during eye screening			
24	Thoyre SM, et al, 2005 Early Feeding Skills			
25	Nyqvist, 2008, Early attainment of breast feeding competence in very preterm infants			
26	Maastrup ??			
27	Bruschweiler-Stern 2009, The Neonatal Moments of Meeting			
28	Douglas et al, 2011, The unsettled baby: how complexity science helps.			
29	Goldstein 2012, Developmental Care for premature infants: a state of mind,			

EVALUATION OF PRACTICAL SKILLS FOR FAMILY CENTRED DEVELOPMENTAL CARE

Please provide as much detail as you can about your experience with this course. Where we have included a scale with numbers from 1 -5 please estimate the strength of your answer by ringing the appropriate number.

1	**OBSERVATIONS**					
a	What was your experience with observing the behavioural systems? (autonomic, motor, state)	Very easy				Very difficult
		1	2	3	4	5
b	Were you able to integrate your observations in your daily routine?	Never				Always
		1	2	3	4	5
c	Did you experience the observations as a burden?	Never				Always
		1	2	3	4	5
d	Did you use the observations in your daily reports?	Always				Never
		1	2	3	4	5
2	**REFLECTIVE DIARY**					
a	What went well with the reflective diary writing?					
b	What was challenging?					
4	**READING**					
a	Did you use any of the information from your reading in your work?	None	Rarely	Occasional	Often	Frequently
5	**GENERAL**					
a	Have you noticed changes in your daily routine, and in the way you care for babies?	A lot of change				No change
		1	2	3	4	5
b	If you noticed change in your routine or way you care for babies please describe.					
c	Were you able to do the course work during work time?	All	A little	About half	Most	None
d	On average how many hours per week did the course work take?	1 hr or less	1-2 hrs	2-4 hrs	4-6 hrs	Over 6 hrs
e	Were you allocated any paid study leave and if so how much?					

f	On a scale of 1-5 how useful was each section of the course	Not useful				Very useful
	Pre-course work	1	2	3	4	5
	Week 1. Introductory day	1	2	3	4	5
	Week 2. Behavioural observations - autonomic	1	2	3	4	5
	Week 3. Behavioural observations - motor	1	2	3	4	5
	Week 4. Behavioural Observations - states	1	2	3	4	5
	Week 5. Behavioural observation – self regulation	1	2	3	4	5
	Week 6. Infants strengths and sensitivity	1	2	3	4	5
	Week 7. Pain management	1	2	3	4	5
	Week 8. Skin-to-skin /kangaroo care	1	2	3	4	5
	Week 9. Caregiving	1	2	3	4	5
	Week 10. Medical procedures	1	2	3	4	5
	Week 11. Feeding	1	2	3	4	5
	Reflective diary	1	2	3	4	5
	Reading materials	1	2	3	4	5
	Comments:					
g	Overall how would you rate the following?	unsatisfactory	weak	satisfactory	good	excellent
	Overall course quality	1	2	3	4	5
	Timelines for professional needs	1	2	3	4	5
	Success in meeting your objectives	1	2	3	4	5
	Course support materials	1	2	3	4	5
	Teaching facilities	1	2	3	4	5
	Mentoring	1	2	3	4	5
	Rapport with tutor	1	2	3	4	5
	Tutors' presentation style	1	2	3	4	5
	Tutors' knowledge	1	2	3	4	5
	Course organisation	1	2	3	4	5
	Comment					
h	Did the course meet your expectations?	Very much				Not at all
		1	2	3	4	5

i	If the course did not meet your expectations please explain why.
j	What were the two most useful things that you gained from this course? 1. 2.
k	Suggestions for improving the course.

Many thanks for your help.

Please return to …….