



Topic Expert Group: Infant- and family-centred developmental care

Education and training for infant- and family-centred developmental care (IFCDC)

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Target group

Infants, parents, and families

User group

Healthcare professionals, hospital staff, neonatal units, hospitals, and health services

Statement of standard

Infant- and family-centred developmental care (IFCDC) competence is ensured by providing formal education and recurrent training for hospital and unit leadership, healthcare professionals and other staff working or visiting the neonatal unit.

Rationale

Infant- and family-centred developmental care (IFCDC) is a framework of care founded on the theories and concepts of neurodevelopment, neuro-behaviour, parent-infant interaction, parental involvement, breastfeeding promotion, and environmental adaptation. It has three core principles: sensitive care is good for the brain; parent engagement is good for development; individualised care gives the infant a voice and a better outcome. (1–4)

Specialist knowledge and skills are the foundations of safe and effective IFCDC. Good practice is based on education that promotes understanding of the theoretical and scientific background, and awareness of the evidence that supports translation into practice. Skills training is structured around this knowledge and may also be passed down from specialist to novice in the work setting.

IFCDC interventions that have been widely, and successfully, tested are based on sound theoretical frameworks with formalised skills training. For example, the Newborn Individualised Developmental Care and Assessment Program (NIDCAP) is based on Als' synactive theory of infant development (5) and has a structured training programme supported by experienced mentors (6); the Mother Infant Transaction Programme (MITP) (7) is similarly based on the work of Brazelton and colleagues, formulated in Newborn Behavioral Assessment Scale (NBAS) training. (8)

Developing educational pathways that lead from novice to expert (9) will ensure that all NICU professionals have educational and training opportunities to develop the knowledge and skills needed to implement high quality IFCDC, which includes guiding of parents as primary caregivers. A variety of educational strategies should be employed, ranging from access to internet services, to training leaders and specialist who can guide practice and policies, set and evaluate standards, and provide teaching, coaching, mentoring and supervision. (see TEG Education & Training)



Benefits

Benefits from interventions based on structured education within the framework of infant- and family-centred developmental care could be seen as indirect to infants, parents, and healthcare professionals. (5,7,8,10–12)

Short-term benefits

- Reduced length of hospital stay (7,13,14)
- Reduced rate of medical complications e.g. better respiratory outcomes (13,15,16)
- Improved sleep regulation (17)
- Improved stress and pain management (18)
- Increased uptake of breastfeeding and kangaroo care (19,20)
- Increased parental perception of support given by NICU staff (21–23)
- Increased healthcare professional perception of positive benefits for own practice as well as general benefits for infants and families (21–23)

Long-term benefits

- Improved infant brain development (24–27)
- Improved infant developmental and behavioural outcomes (7,13,21,26,28–32)
- Improved sense of wellbeing/quality of life in childhood (33,34)
- Reduced parental stress and increased confidence and wellbeing (19,35–38)
- Improved parental mental health (14,36)

Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family N/A		
For healthcare professionals		
1. A unit guideline on peer support for new team members and participation in working groups for infant- and family-centred developmental care (IFCDC) is adhered to by healthcare professionals. (1,4,21,39)	A (Moderate quality) B (Moderate quality)	Guideline
2. Training on IFCDC is attended by all responsible healthcare professionals. (1,4,21,39)	A (Moderate quality) B (Moderate quality)	Training documentation
For neonatal unit		
3. A unit guideline is available and regularly updated, including <ul style="list-style-type: none"> • Dedicated hours to an appropriately trained IFCDC coordinator 	A (Moderate quality) B (Moderate quality)	Guideline



	<ul style="list-style-type: none"> • Coaching sessions for healthcare professionals by appropriately trained IFCDC coordinator • Quality improvement plans and use of tools evaluating practice. (1,4,21,39) 		
4.	An educational pathway including IFCDC is in place. (39)	A (Moderate quality) B (Moderate quality)	Guideline
For hospital			
5.	Training on IFCDC for all healthcare professionals and other staff in the neonatal unit is ensured. (1,4,21,39)	A (Moderate quality) B (Moderate quality)	Training documentation
For health service			
6.	A national guideline for education and training in IFCDC is available and regularly updated. (1,4,21,39)	A (Moderate quality) B (Moderate quality)	Guideline

Where to go – further development of care

Further development	Grading of evidence
For parents and family	
• Parent representatives play an active role in staff education, e.g. by involvement in reflection rounds.	B (Moderate quality)
• Parents are educated and supported by healthcare professionals that enables them to be fully engaged in all aspects of their infant's developmental care. (1,21)	A (Moderate quality)
For healthcare professionals and neonatal unit	
• Provide basic level training in infant- and family-centred developmental care (IFCDC). (1,4,21,39,40)	A (Moderate quality) B (Moderate quality)
• Involve all professions in a developmental care team that promotes education and training in IFCDC. (1,4,21,39,40)	A (Moderate quality) B (Moderate quality)
For hospital	
• Provide an in-house pathway for developmental care education at all levels. (1,4,21,39,40)	A (Moderate quality) B (Moderate quality)
For health service	
• Accredit developmental care training with an academic institution or professional organisations. (1,4,21,39,40)	A (Moderate quality) B (Moderate quality)
• Support a national training programme. (1,4,21,39,40)	A (Moderate quality) B (Moderate quality)

Getting started

Initial steps

For parents and family



- Parents are verbally informed by healthcare professionals about infant- and family-centred developmental care (IFCDC) skills and education material.

For healthcare professionals and neonatal unit

- Develop information material on IFCDC for parents.
- Attend training on IFCDC.
- Develop education and training material for all staff containing: notes about the benefits of IFCDC with references and abstracts, notes about preterm and newborn development, guidelines for best practice (illustrated if possible), links to useful websites, self-assessment materials, description of developmental leader's/specialist's roles, expected competencies.
- Organise regular meetings and training open to all NICU caregivers e.g. introduction of short teaching sessions, delivered on rotation to improve practical skills, developmental care focus groups, include IFCDC in a team journal club.
- Form a developmental care team to promote IFCDC education.
- Identify key personnel with potential to develop higher level expertise/leadership.
- Involve parents to support infant- and family-centred developmental care education.
- Use self-assessment and site assessment tools to identify areas where upgraded knowledge and skills would improve potential for quality improvement.

For hospital

- Support participation of healthcare professionals in training on IFCDC.
- Support the development and dissemination of a parent guide available on IFCDC.

For health service

- Facilitate training collaborations between regional/national neonatal services.

Description

The benefits of infant- and family-centred developmental care (IFCDC) have been reviewed by Westrup (1) and Montirosso (4) and are also described in other Topic Expert Group reports, but education and training opportunities and standards vary from place to place.

Internationally regulated standards of training for IFCDC include NIDCAP (6) and the NBAS (8). Randomised studies with NIDCAP and NBAS based interventions have positive short- and longer-term results for the development and well-being of infants and families. (7,13,15,21,28,29) The outcomes vary as would be expected, as there are many unmanageable variables affecting the way care is delivered in any centre. Benefits from NIDCAP studies have included shorter hospital stays, less disability, better developmental performance up to 2 years and beyond, more normal brain structure and function. (24–26,41) The Mother Infant Transaction Programme, which is based on the NBAS, has shown improved cognitive and behavioural outcomes well into childhood. (29,30,33)

Staff feedback on NIDCAP implementation shows a positive perception of the impact on infants, parents and staff. (21–23) Staff has also reported favourable perceptions of the impact of the Close Collaboration with Parents programme in Finland. (42) A large population study in France showed that NIDCAP based education supported translation of developmental care policies into practice, in particular for skin-to-skin contact and breastfeeding. (20) The Family and Infant Neurodevelopmental Education (FINE) pathway (39), based on similar evidence and principles, is an intermediate/foundational more affordable and accessible



programme. Preliminary results from a survey show positive staff perceptions of change in the quality of care of infants, parents and working practices. (in Preparation: Warren I, Mat Ali E, Green M. Preliminary Evaluation of Family and Infant Neurodevelopmental Education (FINE))

These programmes place considerable emphasis on coaching which is more effective than classroom teaching when it comes to changing practice. (43) Learning alongside skilled practitioners is highly valued as a way to learn. (44) Close Collaboration with Parents also uses a coaching model to train staff to observe infants and consult with parents. (10)

Programmes that take on education of the whole team, tend to involve high financial outlay and have limited evidence of neurodevelopmental benefit. Family Integrated Care (FIC), is a relatively inexpensive team-based and parent peer support approach that aims to upscale parental participation by allowing parents to take on supervised responsibility for most of their infant's care. (45) However, the educational component of developmental supportive care is limited to just one 4-hour teaching session.

The optimal dose of developmental care is difficult to define. Montirosso looked at outcomes for infants cared for with high or low levels of developmental care (Infant Centred Care, ICC) and found that infants in units with higher levels of ICC had better scores on a quality of life index at five years of age. (34) Infants in units with 24-hour parental presence have shorter lengths of stay and spend less time in intensive care. (46) Lester's recent report on single family rooms indicates that the extent of the mother's engagement with her infant determines developmental outcomes at 18 months. However short interventions can also have significant benefits. (31,35,47,48)

Research supports specific areas of practice, for example skin-to skin contact (48–50), feeding practices (51) and management of environment. (52,53) Recommendations or evidence-based guidelines for good practice provide a framework for competencies and training. (54–58) Education is a strategy for upscaling such practices. (59)

Support for parents, to build their resilience and facilitate engagement with their infants is skilled and demanding work. Strategies for supporting staff so that they can manage the demanding work of nurturing parents includes education. (60) Developmental care is included in the educational recommendations proposed by Hall and colleagues to enable staff to provide psychosocial support for families with infants in hospital. (61)

Good communication skills support IFCDC. Another approach to learning that has been positively perceived by participants, who felt more confident in their communications with families as a result, is group away-days with a programme of role play scenarios (with actors), presentations and discussion. (62,63)

Experience of stress and pain is linked to developmental outcome. (64–66) Developmental care helps to reduce stress and pain and training in pain assessment and implementation of non-pharmacological pain management strategies should be in place to ensure that infants are not put at risk by failure to observe recommendations for safe, humane practice. (18,67) There are many pain assessment tools available but lack of training maybe one reason why they are not used. (68) The Evaluation of Intervention Scale (EVIN), which quantifies the quality of care taken to minimise stress and pain during all procedures



and caregiving activities is a low-cost tool that can be used for training, audit, and self-assessment of non-pharmacological pain management. (69)

The presence of highly trained developmental leaders or facilitators in the nurseries will enable peer coaching, reflection and innovation to become part of the educational strategy. Hendricks Munoz found that a developmental care team gave staff more confidence to deliver developmental care. (70) Wallin showed how facilitators can help to change practice in a study that aimed to improve skin-to-skin implementation. (71) The benefits of developing specialists and leaders with the ability to use a coaching model of training are likely to be greater than other methods that aim to change practice. (43)

Some members of a multidisciplinary team may require specific skills training related to their professional roles. They then become a resource for the rest of the team, enabling care plans to be individualised to meet the needs of infants who are high risk for disability due to congenital or perinatal complications. (54–57)

Many educational resources - publications, educational videos, e-learning modules and evaluation tools, are available to support learning, to back up the work of skilled leaders and to get people started.

Source

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