

# Family and Infant Neurodevelopmental Education: an innovative, educational pathway for neonatal healthcare professionals

Family and Infant Neurodevelopmental Education (FINE) is an innovative step-by-step pathway designed to enable neonatal professionals to put the theory and evidence behind infant and family-centred, developmentally supportive care into practice. It is an international, multi-disciplinary programme that makes quality controlled education and training widely accessible and adaptable to many settings. FINE is closely linked to the more advanced NIDCAP training model but aims to support all approaches to early developmental intervention in neonatal care. The basic principles, core themes and step-by-step agenda of FINE are outlined.

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### Keywords

neonatal; neurodevelopment; education; training; NIDCAP

### Key points

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1. There is a need for more accessible education and training to support evidence-based family and infant-centred neurodevelopmental care in neonatal units.
2. FINE provides a high quality, internationally recognised educational/training pathway for all neonatal professionals.
3. FINE is suitable for any model of early developmental intervention in neonatal care.

Modern medical and nursing care has had a profound effect on the survival of infants born preterm but there continue to be concerns about the long-term consequences of early birth on the future development and well-being of all preterm infants. There is growing recognition that an approach to care that considers the experience of infants and families in neonatal units can have both short and long-term benefits.<sup>1-6</sup> Many models of care have been proposed to support the family and infant development, and many neonatal services are striving to make changes in this direction.

While there may be general agreement about the principals involved, education and training to enable staff to put principles and policies for family and infant centred neurodevelopmental care into practice are often unavailable or unobtainable. Those that have completed advanced training, for example the Newborn Individualised Developmental Care and Assessment Program (NIDCAP),<sup>7</sup> often find they need tools to help them to pass on knowledge and skills to colleagues.

The Family and Infant Neurodevelopmental Education (FINE) programme is an eclectic, evidence-based, multidisciplinary programme that incorporates ideas drawn from many successful interventions and many disciplines. It was developed by NIDCAP

professionals and trainers and, although it has much in common with NIDCAP, it is designed to provide theoretical foundations and practical skills that serve any family and infant-centred, developmentally supportive programme, in any situation. The basic principles of the FINE model reflect its universal appeal.

### Basic principles and core themes

FINE is based on three basic principles representing the cornerstones of good practice:

1. Sensitive care is good for the brain. It is neuroprotective<sup>5,6</sup> because it helps to stabilise autonomic regulation, minimise stress and pain, protect sleep, and provide a nurturing sensory and social environment.
2. Care should be mindful of the relationships between infants and caregivers, and between families and professionals. The parent-infant relationship is key to future development and well-being; it thrives when parents have opportunities to be close to and involved in their babies' care and comfort (**FIGURE 1**).<sup>1-4</sup>
3. These first two principles are somewhat subservient to the third, which is that care should be individualised. Every infant is unique; their needs will change according to circumstances, maturation and medical status. Every family is also



**FIGURE 1** The parent-infant relationship thrives when parents have opportunities to get involved in their baby's care.

|                           |  |
|---------------------------|--|
| <b>Infant development</b> | An understanding of development gives context to behavioural responses, parents' expectations and care planning                  |
| <b>Observation</b>        | Observation is a core skill. Babies use behavioural signs to show how they feel  |
| <b>Family</b>             | Professionals work in partnership with parents   |
| <b>Reflection</b>         | Learn from reflecting on experiences; question assumptions about knowledge and practice  |
| <b>Systems</b>            | An understanding of systems theory and change management helps to evaluate practice and discover productive ways to move forward |
| <b>Evidence</b>           | Improve practice using the best available evidence   |

**TABLE 1** The content and activity of FINE is organised around six core themes.

unique and will experience neonatal care differently. Some interventions may be good for all, others need to be carefully adjusted to maximise the infant's, and the family's, strengths and to protect their vulnerability.<sup>1</sup> Individualised care considers the complexity of situations and helps to find solutions that optimise each infant's developmental potential. It is led by awareness of how infants communicate through their behaviour.

Within the framework of these principles FINE organises content and activity around six core themes that cover theory and practice (**TABLE 1**). These themes have evolved and expanded over time as gaps in knowledge became apparent.

### Infant development

An understanding of fetal, preterm and newborn development gives context to the baby's behavioural responses, parents' expectations and planning care. Topics include brain development, physiology, sensory systems, motor function, sleep, and feeding skills.

*"I had no idea that what I was doing might affect the way the brain develops."* Nurse, UK.

### Observation

Observation is a core skill. Babies use behavioural signs to tell us how they are feeling and whether what we are doing is making matters better or worse. Decoding the baby's behaviour is skilled work<sup>2,7</sup> that

is more complex than most people realise.

*"Observing babies was a revelation. I always thought that I was observing but now I know I wasn't really. I spend much more time at the bedside now because I want to watch the babies."* Nurse, Denmark.

### Family

Professionals work in partnership with parents, listening and reflecting with them about their baby, acknowledging that parents usually know more about their baby than they are given credit for. Parents are invited to give feedback.

*"I was amazed how much parents could tell me about their baby."* Nurse, UK.

### Reflection

We learn from experience, but we learn more from reflecting on that experience. Reflection encourages us to question assumptions about what we know and what we practise, and it gives meaning to our work.<sup>8</sup> Reflective functions are important for parenting; staff who can reflect can guide parents to do the same.

### Systems

A basic understanding of systems theory and change management helps healthcare professionals to evaluate their own and the neonatal unit's practice, and to find safe and productive ways to move forward.

### Evidence

Although FINE is designed to improve your own practice, that practice must be rooted in the best available evidence. The course provides core reading materials and keeps presentations up to date.

### The FINE pathway

FINE began about 12 years ago as in-service education at St Mary's Hospital, London, which was then the home of the UK NIDCAP Centre. Study days to reach a wider audience followed and, in the last three years, in partnership with the charity Bliss and through collaboration with the Erasmus Medical Centre in Rotterdam, it has developed into its current form and become established nationally and internationally.

FINE has created an educational pathway (**FIGURE 2**) with steps inspired by Benner's model of nursing education.<sup>9</sup> Provided that suitable faculty can be recruited, FINE courses can be taught anywhere and are relevant to any setting that cares for newborn infants.

*FINE Level 1 (Foundation toolkit)* is an interactive classroom event covering a range of neuroprotective topics that fit into the six core themes. Lectures explain the scope of family and infant centred neuro-developmental care and the supporting evidence. Workshops create opportunities to explore translation of theory into practice and to learn by sharing experiences.

*FINE Level 2 (Practical skills)* invites participants to put theory into practice with weekly assignments in their nursery. Each week has a structured plan organised around the six core themes with additional information, observation assignments, opportunities to engage parents and colleagues, and evaluation of practice. Reflective writings are submitted to a mentor who guides the student throughout the course and provides formative assessment through feedback along the way. Level 2 and 3 require the completion of earlier steps.

*“Everyone thinks it’s unbelievable how much they’ve learned in a short time.”*

Mentor, Sweden

*“My mentor was truly inspirational. FINE helped me to refine my baby observation skills and increased my confidence to support parents as they get to know and understand their baby.”* Practice Development Nurse, UK

*FINE Level 3 (Innovations)* continues to reference the six core themes but places more emphasis on systems. Participants carry out two projects. One documents and critiques a family’s journey with their baby throughout their stay in the neonatal intensive care unit. The other is a quality improvement project based on the plan-do-study-act (PDSA) model.<sup>10</sup>

More recently a *Pre-FINE (Quick look)* course has been added. This is a set of brief exercises to introduce basic principles to new staff on the neonatal team. The exercises come in a booklet and can be completed individually or with a group. Annual *FINE Masterclasses* have also been introduced to keep people up-to-date and to maintain momentum.

## Evaluation and quality control

In the last three years over 250 people have attended FINE Foundation courses in the UK. Feedback has high approval ratings with 100% of attendees at recent courses stating that they would recommend the course to colleagues. In one neonatal network where every unit has sent staff on Foundation courses, a staff survey

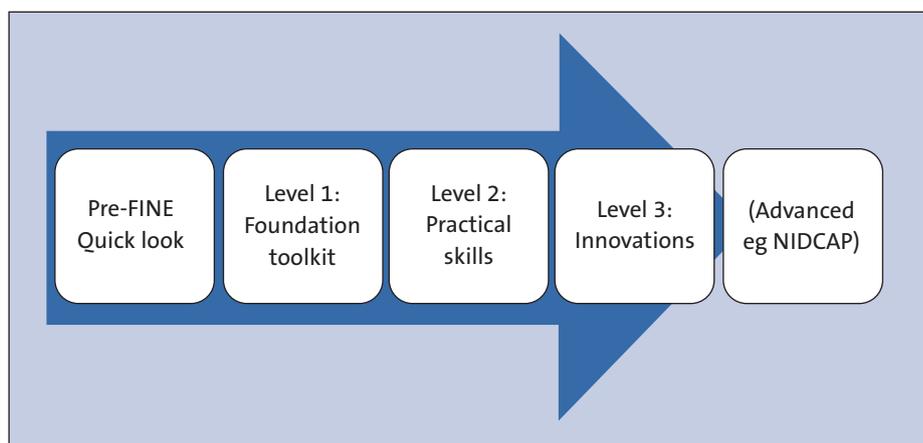


FIGURE 2 The FINE pathway.

indicated positive perceptions with over 70% indicating that practice had improved in areas related to infant care, infant safety and parent participation.

In the UK, 68 people have completed the Practical Skills course including a neonatologist, speech and language therapists, physiotherapists, occupational therapists, nursery nurses, advanced neonatal nurse practitioners and neonatal nurses.

Feedback is very positive and will be analysed in detail from an international database. Qualitative research involving interviews with students and mentors is ongoing.

*“The FINE course gave me new motivation, energy and knowledge – and made me even happier with my job.”* Nurse, Norway.

*“Having had a number of staff from different disciplines (nursing, medical, allied health professionals) completing FINE Level 1 and 2 courses over the past few years has transformed our multidisciplinary team working.”* Physiotherapist, UK.

FINE is consistent with requirements for nursing competencies and has been accredited by the Royal College of Nursing. Its reputation is enhanced by international demand and endorsements. It has already been translated into seven languages with activity in more than 15 countries. FINE is endorsed by the NIDCAP Federation International, the European Foundation for the Care of Newborn Infants (EFCNI), and participating university centres. In the UK, Bliss is sponsoring the development of FINE as a national curriculum.

Quality is managed by an international board that grants licences and appoints leaders with advanced training and extensive experience. There continues to be a need for people to progress to advanced training, such as NIDCAP, which will help to build faculty and leadership capacity.

## Summary

The lack of quality assured education and training for neonatal professionals wishing to deliver family and infant centred, developmentally supportive care has created a bottleneck in quality improvement. The FINE programme offers an educational and training pathway that is accessible, flexible and affordable. Preliminary evaluation indicates high levels of satisfaction with positive perceptions of impact on practice.

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#### See below for upcoming FINE training dates

If you would like to know more about the FINE curriculum and training dates, visit [www.bliss.org.uk](http://www.bliss.org.uk) or email [training@bliss.org.uk](mailto:training@bliss.org.uk)

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>FINE Foundation Toolkit</b> | 16-17 October 2017, London      |
| <b>FINE Practical Skills</b>   | 15 November 2017, Sheffield     |
| <b>FINE Practical Skills</b>   | 21 November 2017, Bristol       |
| <b>FINE Masterclass</b>        | 28 November 2017, Leeds         |
| <b>FINE Foundation Toolkit</b> | 12-13 February 2018, Manchester |
| <b>FINE Foundation Toolkit</b> | 6-7 March 2018, Bristol         |
| <b>FINE Foundation Toolkit</b> | 23-24 April 2018, London        |

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