

**O'Brien K, Robson K, Bracht M et al. Effectiveness of Family Integrated Care in neonatal intensive care units on infant and parent outcomes: a multicentre, multinational, cluster-randomised controlled trial Lancet Child Adolesc Health.**

2018 Apr;2(4):245-254. PMID: 30169298

**Background:**

In a population of neonates born at 33 weeks' gestation or earlier, does a Family Integrated Care (FICare) model compared to standard NICU care affect:

- infant weight gain at 21 days
- breastfeeding frequency
- parental stress and anxiety
- infant mortality
- major neonatal morbidities
- duration of oxygen therapy and
- length of hospital stay.

**Methods**

**Design:** Multicenter, cluster-randomized controlled trial

**Allocation:** Not concealed

**Blinding:** Unblinded

**Follow-up period:** The primary outcome of weight gain was assessed at 21 days after enrollment. Morbidities were assessed through the infants' birth hospitalization.

**Setting:** This study took place in 25 NICUs throughout Canada, Australia, and New Zealand

**Patients:**

Eligible infants included those born before or at 33 weeks' gestation and who were on no or low-level respiratory support, defined as oxygen by cannula or mask, or non-invasive ventilation. Parents in the FICare group committed to being present in the NICU for at least 6 hours per day, to attend educational sessions, and to actively care for their infant.

# ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



## Family Integrated Care in NICU

**Primary outcome:**

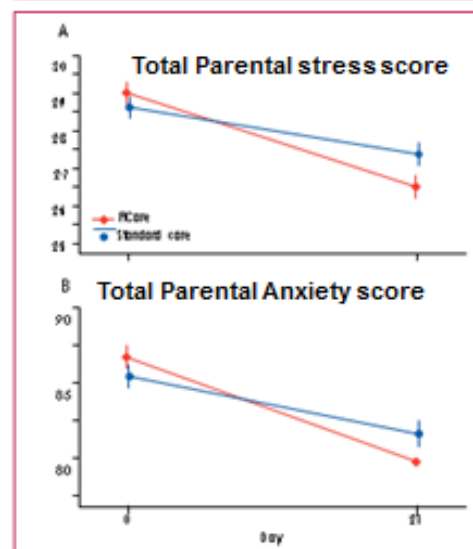
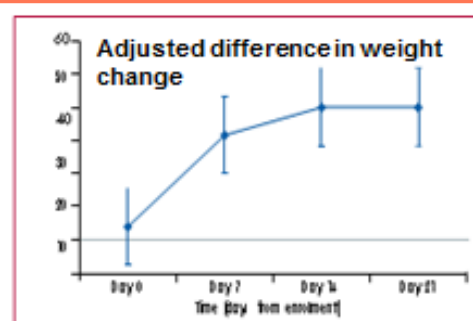
Infants in the FICare group demonstrated better weight gain at 21 days, compared to infants in the standard care group with mean change in weight Z score of -.071 compared to -0.155 ( $p < 0.01$ ).

**Secondary outcomes:**

Rate of high-frequency breastfeeding (>6 times per day) was higher in the FICare group compared to the standard care group (70% vs 63%,  $p = 0.02$ ),

At enrollment, total stress and anxiety scores among parents were similar between groups. Mean scores decreased in both groups at day 21, however the mean stress and anxiety scores for parents in the FICare group were significantly lower than those for parents in the standard care group (stress score 2.3 vs. 2.5,  $p < 0.01$ , anxiety score 70.8 vs. 74.2,  $p < 0.01$ ).

There were no significant differences between groups in the secondary outcomes of neonatal mortality or major morbidities, duration of oxygen therapy, and hospital length of stay.



**Conclusion:** In this cluster randomized controlled trial, the authors show that infants receiving FICare had improved weight gain in the NICU at 21 days post-intervention, increased high-frequency breastfeeding, and decreased levels of parental stress and anxiety.

## EXPERT COMMENT



“Family Integrated Care ,or Family participatory Care as envisaged by MOHFW Govt of India can be a game changer in improving breastfeeding, weight gain, decreasing hospital stay and decreasing parental anxiety and stress”

**DR SURENDER SINGH BISHT**  
M.D (Pediatrics), DNB (Pediatrics),  
Consultant SAG ,Pediatrics & Incharge, NICU, DNB Coordinator,  
Swami Dayanand Hospital, Dilshad Garden, Delhi 95

**DR MANINDER S DHALIWAL**

Editor – Academic Pearls  
pedpearls@gmail.com

**DR BAKUL JAYANT PAREKH**

National President 2020

**DR G.V. BASAVARAJ**

Hon. Secretary Gen. 2020-21

**Reference**

O'Brien K, Robson K, Bracht M et al. Effectiveness of Family Integrated Care in neonatal intensive care units on infant and parent outcomes: a multicentre, multinational, cluster-randomised controlled trial Lancet Child Adolesc Health. 2018 Apr;2(4):245-254. PMID: 30169298