



Effectiveness of breast crawl technique on physiological and behavioural adaptation of neonates: A case-control study

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Abstract

Breast crawl, a natural phenomenon observed in neonates immediately after birth, refers to the infant's instinctive ability to move toward the mother's breast and self-latch. Enabled by early skin-to-skin contact, this practice supports thermoregulation, cardio-respiratory stability, optimal glucose levels, and successful breastfeeding initiation. Despite WHO and UNICEF recommendations, breast crawl is still not routinely implemented in many healthcare facilities.

Objectives: The present study aimed to (1) evaluate the effect of the breast crawl technique on neonatal physiological parameters, (2) compare outcomes between experimental and control groups, and (3) examine associations between neonatal physiological parameters and selected demographic variables.

Methods: A case-control study was conducted among 60 postnatal mothers and their neonates, assigned to experimental (n = 30) and control (n = 30) groups. Data were collected using a structured questionnaire on maternal and neonatal demographics and observational checklists for physiological parameters (heart rate, respiratory rate, oxygen saturation, temperature, blood glucose, muscle tone, and behaviour). Breast crawl was facilitated in the experimental group, while the control group received routine care. Data were analysed using descriptive and inferential statistics at a 95% confidence level.

Results: Neonates in the experimental group showed significantly better outcomes than controls: successful crawl and latch (50.0% vs 3.3%), normal latch/suck (63.3% vs 13.3%), breastfeeding initiation within 4-6 minutes (83.3% vs 23.3%), APGAR 8-10 (66.7% vs 0%), oxygen saturation > 94% (70.0% vs 20.0%), normothermia (83.3% vs 20.0%), and fully alert responsiveness (83.3% vs 13.3%). Maternal satisfaction was markedly higher in the experimental group (76.7% somewhat satisfied vs 83.3% dissatisfaction in controls).

Conclusion: The breast crawl technique improves neonatal physiological stability and early breastfeeding while enhancing maternal satisfaction. Given its simplicity, safety, and low cost, it should be integrated into routine maternity care with staff training and policy reinforcement to optimize neonatal outcomes.

Keywords: Breast crawl, neonatal physiological parameters, skin-to-skin contact, breastfeeding initiation, maternal satisfaction