

Non-nutritive sucking

Non-nutritive sucking is defined as any suckling other than when fluid is being introduced, as opposed to nutritive suckling where fluid is being introduced and bolus formation is occurring in the mouth and throat¹. Sucking pressure is higher and sucking frequency is shorter during non-nutritive sucking compared to nutritive sucking and is used to initiate milk flow during breastfeeding². Non-nutritive sucking is a self-soothing behaviour^{3,4} and its use has been shown to reduce length of stay in hospital for infants born preterm^{4,5}.

Sucking and swallowing activity is seen by 28 weeks gestation although full coordination of these behaviours occurs at about 32 – 34 weeks⁶. Generally, infants born preterm achieve a coordinated pattern of sucking, swallowing and breathing after 32 weeks⁵ so that nutritive sucking may be introduced slowly once infants have matured to this level and demonstrate sucking cues (see below).

Purpose of non-nutritive sucking

State regulation, to satisfy sucking desire and exploration for the preterm infant while in the neonatal intensive care unit. Non-nutritive sucking, when used appropriately, can facilitate maturation of the suck-swallow reflex^{5,7}.

Aims

- Promote infant nipple feeding (breast or bottle) for infants born preterm utilising non-nutritive sucking^{3,5}. Identify infants who would benefit by being offered a dummy (pacifier) or thumb to accelerate maturation of the sucking reflex and reduce time to full enteral feeding^{3,5,8,9}.
- Assist infants to cope with stressors while in the neonatal intensive care unit by using non-nutritive sucking to self-regulate behavioural states⁴ and providing more time in quiet alert states for positive parent-infant interaction.

Methods

- Watch for cues from the infant, for example crying, sucking, active movement, rooting, not settling.
- Observe for signs when assessing an infant's maturity to breastfeed, for example sucking on the intragastric tube or waking for feeds, handled without signs of stress such as apnoea, bradycardia and colour changes.
- Parents require explanation as to the value of dummies for preterm and/or sick infants while in neonatal intensive care.

Implementation

- Position baby to encourage hand to mouth activity.
- Position the infant to suck on own thumb and fingers. It is very important to encourage the 'nesting' or flexed position to assist this behaviour. WEE THUMBIE (Intermed, Sydney) - designed specifically for premature infants. Modelled after the size and shape of the premature thumb, it facilitates the important sucking behaviour normally learned in utero^{5,6}.
- Offer dummies to preterm infants for about five minutes before intragastric or oral feeds as this assists with state organisation and calming of the infant³.
- Observe behavioural cues of the infant. Vigorous sucking, rooting and crying are recognised as hunger cues⁹.
- When providing the infant with a dummy (pacifier), wait for the infant to open his/her mouth wide and extend the tongue to encourage this action as a desired pre-feeding behaviour.
- Dummies are not to be given to term infants without parental permission. If the infant is unsettled, call the mother to settle the infant. If appropriate, nil by mouth infants may be offered dummies to assist in settling a distressed infant.
- Avoid over stimulating the infant.

Outcomes

- Earlier initiation of nutritive sucking and promotion of sustained nutritive sucking activity⁹.
- Promotion of mature suck-swallow reflex which will reduce time to full enteral feeding and improve weight gain^{7,8,12}.
- Promotion of an alert state at the start of feeding activity³.
- Establishment of lactation is promoted and length of stay is minimised^{3,5}.

References

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