Early skin-to-skin contact for mothers and their healthy newborn infants

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RHL summary

To allow early skin-to-skin contact (SSC) after birth, the baby is dried and placed naked on the mother’s chest and then covered with a blanket and a head cap to keep warm. Evidence from 34 randomized trials involving 2177 women and their babies found that babies in the SSC group cried less, interacted more with their mothers, had improved cardiorespiratory stability and glucose levels, and were more likely to be breastfed. No adverse effects were observed. On the basis of this evidence, SSC should be routine practice. Implementing SSC may require considerable commitment and energy to sustain the practice. Routine tasks such as measuring and observing the baby could be done with the baby on the mother’s chest. Weighing the baby could be delayed or done at the bedside with a minimal period of separation.

Abstract

Mother-infant separation postbirth is common in Western culture. Early skin-to-skin contact (SSC) begins ideally at birth and involves placing the naked baby, head covered with a dry cap and a warm blanket across the back, prone on the mother's bare chest. According to mammalian neuroscience, the intimate contact inherent in this place (habitat) evokes neurobehaviors ensuring fulfillment of basic biological needs. This time may represent a psychophysiological 'sensitive period' for programming future physiology and behavior.

To assess the effects of early SSC on breastfeeding, physiological adaptation, and behavior in healthy mother-newborn dyads.

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (30 November 2011), made personal contact with trialists, and consulted the bibliography on kangaroo mother care (KMC) maintained by Dr. Susan Ludington.
Randomized controlled trials comparing early SSC with usual hospital care.

We independently assessed trial quality and extracted data. Study authors were contacted for additional information.

Thirty-four randomized controlled trials were included involving 2177 participants (mother-infant dyads). Data from more than two trials were available for only eight outcome measures. For primary outcomes, we found a statistically significant positive effect of early SSC on breastfeeding at one to four months postbirth (13 trials; 702 participants) (risk ratio (RR) 1.27, 95% confidence interval (CI) 1.06 to 1.53, and SSC increased breastfeeding duration (seven trials; 324 participants) (mean difference (MD) 42.55 days, 95% CI -1.69 to 86.79) but the results did not quite reach statistical significance (P = 0.06). Late preterm infants had better cardio-respiratory stability with early SSC (one trial; 31 participants) (MD 2.88, 95% CI 0.53 to 5.23). Blood glucose 75 to 90 minutes following the birth was significantly higher in SSC infants (two trials, 94 infants) (MD 10.56 mg/dL, 95% CI 8.40 to 12.72).

The overall methodological quality of trials was mixed, and there was high heterogeneity for some outcomes. Limitations included methodological quality, variations in intervention implementation, and outcomes. The intervention appears to benefit breastfeeding outcomes, and cardio-respiratory stability and decrease infant crying, and has no apparent short- or long-term negative effects. Further investigation is recommended. To facilitate meta-analysis, future research should be done using outcome measures consistent with those in the studies included here. Published reports should clearly indicate if the intervention was SSC with time of initiation and duration and include means, standard deviations and exact probability values.

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