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Skin-to-skin Care Related to Thermoregulation

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PATIENT CARE ISSUE

Background & Significance

Skin-to-skin contact can reduce neonatal mortality or morbidity by 18-42% (UNICEF 2007)

After birth temperature regulation is essential in newborn babies. Skin-to-skin benefits include (UNICEF 2007):

- Regulating heart rate, temperature, and respirations
- Greater weight gain

Skin-to-skin is holding the baby naked in a prone position against the mother's (or father's) skin between the breasts (UNICEF 2007).

Why are radiant warmers still used on health full-term infants if skin-to-skin has more benefits?

EVIDENCE-BASED PRACTICE QUESTION

Question: Is skin-to-skin care more efficient in stabilizing the temperature of a full-term infant, than using a radiant warmer

P: New mothers and full-term infants

I: Skin-to-skin, or Kangaroo Care

C: Using skin-to-skin care compared to the current practice of using a radiant warmer immediately after birth

O: The effect of skin-to-skin care on full-term infants to stabilize temperature more efficiently than an incubator

REGISTERED NURSE INTERVIEW

T. Morrison, RN, NICU at Miami Valley Hospital

- Skin-to-skin stabilizes temperature and blood pressure
- Decreases apnea and bradycardia
- EMS implements skin-to-skin when transporting an infant that is doing poorly
- Works for premies
- Moms regulate heat more consistently than the Dad
- "It WORKS!"

METHODS

Systematic Search

Databases:

- Medline
- Pubmed
- CINHAL

Word Search

- Skin-to-skin
- Kangaroo care
- Skin temperature
- Thermoregulation
- Newborn
- Postpartum

CINAHL:	Last 5 years	Medline:	Last 5 years	Pubmed:	Last 5 years
"Skin to skin" - 280	140	"Skin to skin" -501	240	"Skin to skin" - 520	228
"Kangaroo care" -528 (236)		"Kangaroo care" -176	59	"Kangaroo care" 181	60
"Kangaroo care/temperature / postpartum" -11		"Kangaroo care/temperature" -11		"Skin to skin/temp Erature /postpartum" -17,	
				"Kangaroo care/temperature" - 12	

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RESULTS

Skin-to-skin care:

- Focused on breastfeeding
- Encouraged the growth and development of premature infants (Mori, R)
- Effect on full-term infants not widely studied
- Increased temperature and stabilized quicker than incubator care (Ahmed, S)

Focus of paper was to investigate the existing studies that show the physiological effect that skin-to-skin care, in comparison to incubator care, has related to the topic of infants' thermoregulation.

SYNTHESIS OF EVIDENCE

RCT in Ethiopia, Indonesia, and Mexico recording episodes of hypothermia (Cattaneo, A)

- Skin-to-skin group-10.8%
- Incubator group- 14.6%

Meta-synthesis study done in a poverty stricken area comparing temperature between kangaroo care and incubator care (Ahmed, S)

- Babies reached normal body temperature faster than incubator warmed babies

RCT of skin-to-skin care compared to incubator care on full-term, low-risk infants (Fardig, J.)

- Temperature stabilized quicker than other groups
- Temperature was a degree higher than other groups

Skin-to-skin care

- Temperature raised 0.3 degrees Celsius and retained better (Fohe, K)

Meta-analysis done in Japan with preterm babies had skin-to-skin care (Mori, R)

- Better mental development
- Elevates and maintains temperature

EVIDENCE-BASED PRACTICE RECOMMENDATIONS

After doing the research, we recommend implementing skin-to-skin care for full-term infants for thermoregulation, decreasing bradycardia and apnea. The benefits are much higher for skin-to-skin care than for the current standard of care which is incubators and lamps. The use of skin-to-skin care is also very beneficial for LBW and premature infants.

LIMITATIONS

There are several studies done on kangaroo care; however, few have sufficient research on temperature. Many studies on kangaroo care have been done to study breastfeeding, but not necessarily temperature regulation of the infant.

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