

Thesis Title Comparison of the Effect of Preventive Heat loss
 Immediately after Birth on Body Temperature
 Change in the Newborn

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ABSTRACT

In the newborn, the maintenance of a stable body temperature is possible only within a narrow range of environmental temperature fluctuation. Newborn infants lose heat rapidly at birth and during the first hour of life unless special precautions are taken. Hypothermia is therefore the principle problem of heat regulation. The tendency to lose heat rapidly may be a threat to survival of the newborn. Thus, the major components of neonatal care include prevention of heat loss, hypothermia and cold stress.

The purpose of this research is to observe the effect of heat loss prevention immediately after birth on body temperature change in the newborn. Quasi-experimental research was implemented. Eighty healthy mother with their newborn babies in the labour room at Pramongkutklao Hospital were studied. They had been selected according

to the criteria and randomly assigned into four groups of an equal number. Each group consisted of 20 newborns. All groups were studied during the first thirty minutes of life.

Group I : At birth, the newborns were dried promptly, given routine care in crib at room temperature and placed in skin-to-skin contact with their mothers. Both were covered with blanket.

Group II : The newborns were treated the same as those in Group I but they were wrapped with blanket and placed under the radiant warmer instead of being given to the mother.

Group III : At birth, the newborns were dried promptly, given the routine care under the radiant warmer and placed in skin-to-skin contact with their mothers. Both were covered with blanket.

Group IV : The newborns were treated the same as those in Group III but they were wrapped in blanket and placed under the radiant warmer instead of being given to the mother.

In each group, rectal temperature was recorded by an electronics thermometer after routine care and at the 30th minute after birth. Data was analyzed by using the student t-test (Independent sampling). The result was be concluded as follow :

1. Mean body temperature of each group at the 30th minute after birth was within normal range, i.e. 36.7°C, 36.5°C, 36.8°C and 36.6°C in group I, II, III and IV respectively.

2. There was a significant difference of the change of temperature from the point after routine care was given to the 30th minute after birth with the t-value of $P < .01$ between Group I and Group II as well as between Group III and Group IV. That was the temperature

of Group I babies dropped less than Group II and Group III babies dropped less than Group IV.

The result of the research suggests that for the healthy mothers and newborn babies, during the first thirty minutes after birth, heat loss can be prevented significantly by drying the newborns promptly, giving routine care under the radiant warmer and placing the newborns in skin-to-skin contact with their mother.

In mothers with complications, the newborns should be wrapped in blanket and placed under the radiant warmer after the routine care has been given.