# The Impact of Kangaroo Care on Mothers Anxiety and Physiological Parameters of Preterm Infants in Nablus City - Palestine: Quasi-experimental Study

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#### Abstract

#### Background

Kangaroo Care (KC) is an evidence-based practice that is proved to be beneficial for both baby and mother in several physiological and psychological aspects, and can increase babies' survival rates and decrease their morbidity and mortality rates especially in infant period. It also has factors that support its use among Health Care Providers (HCPs) as well as barriers. KC can be used merely or in combination with intangible acts, such as music.

#### Aim

The main aim of the study is to assess the effect of using KC on Maternal State Anxiety (MSA) and baby's physiological parameters.

## Method

A quasi-experimental quantitative design will be used to assess the effect of KC on MSA among women after delivery and physiological parameters of preterm infant (gestational age less than 37 weeks) in Neonatal Intensive Care Unit (NICU) in Nablus.

Convenient sampling technique will be used, (N=48), the sample divided into two groups; experimental group with KC (n=24), control group without KC (n=24). The data gathering tool is questionnaire consisted of, State-Trait Anxiety Inventory (STAI), and physiologic parameters (vital signs) also assessed for the infant by writing the vital signs monitor findings.

#### Results

With 64.6% of mothers are between 20 and 30 YO, 41.7% of them live in cities. Less than a half (41.7%) of mothers had 4 to 6 total pregnancies, and the same percentage of mothers have 4 to 6 lived babies, with 53.8% had 3 to 5 preterm babies, and 52.1% had no abortion. While 70.8% of mothers delivered their last baby via CS, 95.8% of them had no postpartum complications, but majority (89.6%) of babies were admitted to NICU. 64.6% of mothers stated they have a previous knowledge about KMC.

Generally, there was no change in baby's physiological parameters during the 3 days observation, but when comparing KMC and control group, KMC was significantly correlated with more stable heart rate, less respiratory rate and higher SpO<sub>2</sub> (p-value < 0.03), but no significant difference in temperature was found (p-value = 0.684). MSA was significantly less in mothers with KMC for both Y1 and Y2 sections of STAI scale (p-value < 0.001).

#### Conclusion

KMC is among the commonest but underrated methods that can be used to enhance mother-baby relationship, and is correlated with enhanced stability of baby's physiological parameters and less anxiety scores.

KMC should be used more by mothers and educated more by health care providers, by increasing level of knowledge and educational programs.

### Key words:

Kangaroo care, MSA, Physiological parameter, Preterm infant, NICU, STAI.