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### **The effect of nutritive versus non nutritive feeding methods on pain relive for premature infants in prone position following invasive procedures**

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**Aim:** The aim of this study is to assess the effect of nutritive versus non nutritive feeding methods on pain relive for premature infants in prone position following invasive procedures.

**Research Design:** Quasi Experimental research design was utilized.

**Setting:** This study was conducted in neonatal Intensive care unit (NICU) at Assuit University Pediatric Hospital.

**Subjects:** The subjects who participated in this study included a convenient sample of 90 premature infants who were selected randomly from the previous setting. They were divided into three groups of premature infants (30 neonates for each group). Two fifths of the premature infants of both the control and study group-2 (46.6% for both) and more than half (56.7) of group-3 had birth weight from 1500 to less than 2500 kg. More than half of the control group (53.3%) had 28-31 weeks of gestational age while 53.3% and 50.0% respectively of study group-2 and 3 respectively had 32-35 weeks of gestational age. The majority of the subjects had history of respiratory distress [control group (93.3%), study group-2 (86.6%) and study group-3 (76.6%)]. The majority of premature infants in the control group (60%) was active or awake and had eye open, facial movement of behavioral state.

**Results & Conclusion:** The highest percentage of premature infants' in the control group had an increase in heart rate by 25 beats per min or more (46.7%) and a decrease in oxygen saturation (50.0%) by 7.5% or more. The highest percentage of the control group (60%) was taking a maximum of 70% of time or more to express the facial action. It was concluded that sucrose solution and non-nutritive sucking were effective in reducing premature infants' pain during invasive procedures in prone position as significant differences were found between the control group and study groups. In addition, it could be said that sucrose solution is slightly better than non-nutritive sucking (pacifier) in pain relief for premature infants during invasive procedure. Although no significant difference was found, the percentage of premature infants who suffered from mild pain & received sucrose solution was higher than those who suffered from mild pain & received non-nutritive sucking.

**Recommendation:** Based on the findings, the study recommends that encourage nurses to use of feeding methods such as sucrose solution and non-nutritive sucking (pacifier) before painful invasive procedures in premature infants on prone position is a simple, non invasive and effective method in pain management. The use of sucrose solution is slightly better than non-nutritive sucking (pacifier) in reliving premature infants' pain.

#### **Biography**

Hekmat Ibrahim Abed El Kerim has completed her PhD and Postdoctoral studies from Assiut University; Faculty of Nursing. She is an Assistant Professor in the Faculty of Nursing, Assiut University; teaching Pediatric Nursing.

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