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A study to evaluate the effectiveness of oral sucrose solution in terms of reduction of pain during painful procedure among neonates admitted in selected hospital, Gonda, UP

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Abstract
A study to evaluate the effectiveness of oral sucrose solution in terms of reduction of pain during painful procedure among neonates admitted in selected hospital at GONDA. The study was conducted in S.C.P.M Hospital at Gonda. Posttest only control group quasi experimental design was used for this study. The sample consist of 60 neonates, 30 neonates were in experimental group and 30 neonates in control group. The samples were selected by purposive sampling technique. The mean posttest pain score of experimental group was 4.43 where as in control group it was 8.2, the mean difference value was 3.77. In comparison of posttest pain score of experimental group and control group the calculated T value was 16.5, indicates that the difference has not occurred by chance, it could be due to the effect of sucrose solution. The tool used for this study was Neonatal pain assessment scale which measures behavioral and physical characteristics of neonate during painful procedure.

Keywords: neonates, sucrose solution, painful procedure

Introduction
Pain is a universal experience. Individual differences exist in pain perception not only among adults but also among the children. Pain in children is under estimated by health care professionals due to some myths present among them. Pain perception develops in fetus during second trimester. Some studies have suggest that pain experience in early life by infants may exaggerate affective and behavioral responses during subsequent painful events. Pain assessment in neonates are constantly challenging to parents and health care professionals. Management of pain can be improved by increasing staff sensitivity, use of integrated programmes of drug, physical and psychological approaches.

Objectives
1. To assess the level of pain among neonates during painful procedure after administration of oral sucrose solution
2. To compare the level of pain among the neonates receiving oral sucrose solution and those not receiving oral sucrose solution during painful procedure.
3. To find out the effectiveness of oral sucrose solution in reducing pain during painful procedure.
4. To seek the association between pain score of the neonate during painful procedure and selected demographic variables

Hypotheses
H_1: The mean posttest pain score of the experimental group receiving oral sucrose solution will be significantly lesser than the posttest pain score of the control group during painful procedure.

H_2: There will be significant association between the pain score of the neonate during painful procedure and selected demographic variables.

Methods and Materials
Research approach: Experimental research approach
Research Design: Quasi experimental posttests only control group design.

Variables
Dependent variable: pain during painful procedure
Independent variable: Sucrose solution.
Setting of the study: The study was conducted in S.C.P.M hospital at Gonda.
Sample: Neonates of both sexes who had undergone painful procedure.
Sample size: 60 neonates, 30 in experimental group and 30 in control group.
Sampling Technique: Purposive sampling technique was adopted for this study.

Results
The figure reveals that the majority of the neonates 27(90%) in the experimental group had moderate pain control and felt less pain whereas, in control group majority of the neonates 24(80%) had no pain control and felt severe pain The finding reveals that the mean pain score of experimental group is 4.43 which is lower than the mean pain score of the control group that is 8.2, the obtained `t' value is 13.9 which is significant at 0.05 levels. This indicates that the difference between the mean (3.77) is true has not occurred by chance, it could be due to the effect of oral sucrose.

The investigator found that the sucrose solution has an analgesic and diversional effect. The neonates after receiving oral sucrose felt less pain and get diverted from pain.

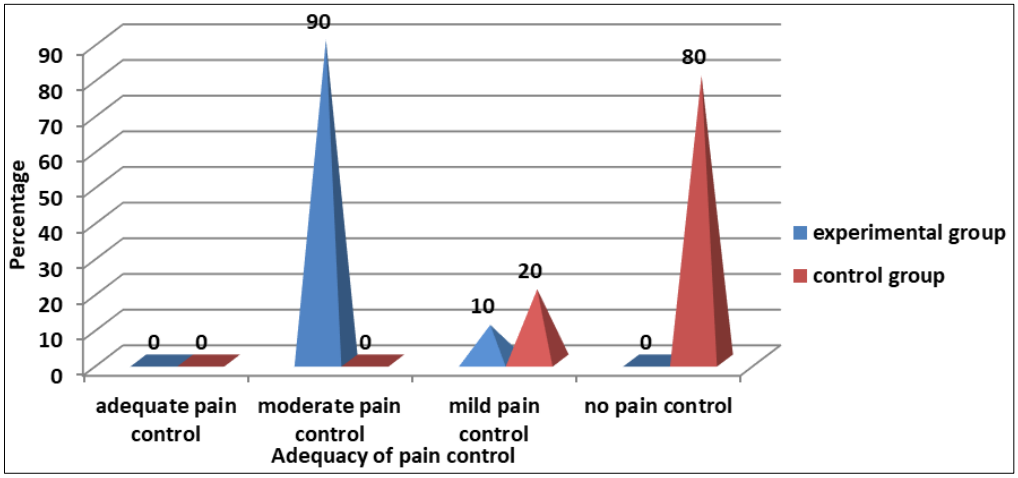

Fig 1: Frequency and Percentage distribution of samples according to the adequacy of pain control among the experimental and control group

Table 1: Comparison of mean posttest pain score of experimental and control group

Group	N	Mean	Sd	SD	`t' Value
Experimental Group	30	4.43	1.2	3.77	13.96
Control Group	30	8.2	1.1		**S**

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