

A STUDY TO ASSESS THE EFFECTIVENESS OF FACILITATED TUCKING ON PAIN DURING VENIPUNCTURE AMONG NEONATES ADMITTED IN SELECTED NEONATAL INTENSIVE CARE UNITS OF SANGLI MIRAJ KUPWAD CORPORATION AREA

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ABSTRACT: A study to assess the effectiveness of facilitated tucking on pain during venipuncture among neonate admitted in selected neonatal intensive care units of sangli, Miraj, kupwad corporation area. 'Objective: -1. To assess the level of pain on neonate during venipuncture in control group.2.To assess the level of pain on neonate during venipuncture with facilitated tucking in experimental group.3. To compare the level of pain on neonate between control and experimental group.Material and method: -Design used in this study is a quasi-experimental post-test only control group to evaluate the effect of facilitated tucking on pain during venipuncture procedure. 70 sample were selected by non-probability purposive sampling method. NIPS pain scale were used to evaluate the level of pain in this study. For experimental group the facilitated tucking was used were as in control group no any method was used during venipuncture to evaluate the level of pain. The conceptual framework used for this study is the Kathrine'sKolcaba theory based on the comfort theory with 4 components such as Comforting intervention, Health care need, Institutional integrity and Enhanced comfort was used.Result and conclusion: -During venipuncture procedure 100% neonate had experience sever level of pain in control group and in experimental group 94.28% experience moderate level of pain and 5.71% experience no pain with facilitated tucking. The result shows that mean pain score in control group is 6.66 were as in experimental group was 3.37. the mean pain score is less in experimental group as compare to control group and p value is 0.001 which is less than 0.05. it concludes that there is difference in pain score between experimental and control group and it is statistically significant difference. It is also observed that level of pain is less in experimental group than in control group. Hence, we accept H1Hypothesis that is, facilitated tucking is effective on pain during venipuncture.

INTRODUCTION

Universally, pain is the most typical disadvantage in NICU. Neonate are unable to verbalize exact pain which might also be neglected. It is considered that neonate does not sense pain or the experience of pain would be ignored as soon as it had occurred. Many other experimental studies have tested this concept and have given evidence to reveal that entirely neonate sense pain on the other hand they also experience it greater intensity than elder children do. Pain motives acute stress which will likely to end with long-term complications.

Neonate are additional at risk of these effects because the painful procedure happens throughout the essential time when development exposing them to potential long run biological process and psychological issues. Pain management in neonate could be tucking is an ease method that everybody is ready to perform an important drawback with the NICU.

In NICU venipuncture is the most frequently performed painful procedure for blood sampling. Venipuncture procedure influence pain duration. Administration of sucrose and non-nutritive sucking is one of the favored nonpharmacological approaches to pain relief. Administration of medicine for pain are practiced for severe pain of appreciable period due to the various potential, uncommon complication related to medications. Facilitated it with non- skilled steering. Additionally, this method provides a chance for parents to participate with the baby's pain relief and it help in growing the bonding between them. This facilitated tucking gives the position and the sense of touch. Positioning the neonate gently with one hand and other hand over the child's head with extremities flexed

towards the mid-line, neither to lateral, supine or prone position. In developed countries facilitated tucking has been established and recommended to reduce pain.

Through the clinical experience researcher understood the pain physiology in neonate during procedure of venipuncture. Neonate are unable to communicate the severity of pain so it remains neglected. Investigator realized that a to evaluate the pain in neonate and to practice pain relieving nursing measures can be performed during routine procedures by use of a valid tool. Facilitated tucking is adopted as the comforting method to reduce pain that confines the neonate and also avoid the long-term complications of repeated painful stimuli.

Neonatal Infant Pain Scale used as a behavioral indicator to evaluate the level of pain. NIPS can be used in both full and pre terms neonate. There are 6 behavioral indicators including; state of arousal, arms and legs movements, cry, respiratory patterns and facial expressions. All variable is scored from 0-4. 0-2 indicates no pain, 3-4 indicates moderate pain more than 4 indicates severe pain

During 2006, effect of facilitated tucking in pain management throughout pharyngeal or endotracheal suctioning of preterm infant was examined by Axielin. 20 neonates were participated with their mothers. The pain score was median 3 using facilitated tucking by parents and median 5 without facilitated tucking throughout suctioning. The NIPS was used to evaluate pain in neonate. p value is less than 0.001. By giving facilitated tucking by parent neonate calmed down quickly. Most of the parents are willing to give facilitated tucking throughout suctioning compared to regular care. The research discovered that facilitated tucking is an efficient and safe in management of pain in neonate throughout suctioning.

Aims and Objectives: -

1. To assess the level of pain on neonate during venipuncture in control group.
2. To assess the level of pain on neonate during venipuncture with facilitated tucking in experimental group.
3. To compare the level of pain on neonate between control and experimental group.

Material and method: -

Design used in this study is a quasi-experimental post-test only control group. 70 sample were selected by non-probability purposive sampling method. NIPS pain scale was used to evaluate the level of pain in this study. For experimental group the facilitated tucking was used, in control group no any intervention was used during venipuncture to evaluate the level of pain. The conceptual framework used for this study is the Kathrine'skolcaba theory based on the comfort theory with 4 components such as comforting intervention, health care need, institutional integrity and enhanced comfort was used.

The tool consisted of:

Section I: - Demographical Data

Code No.: -

Age (in days) of Neonate

Section II: - Neonatal Infant Pain Scale to assess the pain in neonatal.

Result: -

The purpose of analysis is to reduce the data to intelligible and interpretable forms so that the relation of problems can be studied and tested. The interpretation of tabulated data can bring to light these real meaning of the finding of the study.

Analysis and interpretation of data for the present study is based on data collected from 70 neonates admitted in selected NICUs of SangliMirajKupwad corporation area.

The data collected is tabulated, analyzed and interpreted by using descriptive and inferential statistics. The data is analyzed on the basis of the objectives and hypothesis of the study.

- To evaluate the level of pain in neonates during venipuncture in control group.
- To evaluate the level of pain in neonates during venipuncture with facilitated tucking in experimental group.
- To compare the level of pain in neonate between control and experimental group.

Organization of Findings: -

The collected information was organized and presented in 4 sections as follows:

Section I: Description of socio-demographic characteristics of samples.

Section II: Assessment of level of pain in control group during venipuncture.

Section III: Assessment of level of pain in experimental group during venipuncture.

Section IV: Comparison of level of pain in control and experimental group.

Section 1: Distribution of socio-demographic characteristics of sample.

Table 1: Frequency and Percentage wise distribution of age.

Variables	Age in days	Experimental group		Control Group	
		Frequency	Percentage	Frequency	Percentage
Age of neonates (in days)	0-10	9	25.71%	10	28.57%
	11-20	16	45.71%	12	34.28%
	21-28	10	28.57%	13	37.14%

$n = 35+35= 70$

Table no. 1 shows that, in control group 34.28% of babies were between 11-20 days and 37.14% were between 21-28 days of life. Where in experimental group 45.71% were between 11-20 days of life and 28.57% were between 21-28 days of life.

Section 2: Assessment of level of pain in control group.

n=35

Pain level	Pain score	Control Group	
		Frequency	Percentage
No Pain	0-2	00	00
Moderate Pain	3-4	00	00
Severe Pain	Above 4	35	100%

Table no. 2. In control group 100% neonates experienced severe pain during venipuncture procedure.

Section 3: Assessment of level of pain in experimental group.

Pain level	Pain score	Experimental Group	
		Frequency	Percentage
No Pain	0-2	02	5.71%
Moderate Pain	3-4	33	94.28%

Severe Pain	Above 4	00	00
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n=35

Table no. 3. In experimental group 94.28% neonate experience moderate level of pain and 5.71% experience no pain during venipuncture procedure.

Table 4: COMPARISON OF PAIN SCORE BETWEEN CONTROL AND EXPERIMENTAL GROUP.

n=35+3=70

Group	Frequency	Mean	SD	T value	P value
Control Group	35	6.66	0.48	25.30	0.001
Exp. Group	35	3.37	0.60		

Table no. 4. Shows the mean pain score of control group is 6.66, SD is 0.48 and experimental group mean of pain score is 3.37 and SD is 0.60. T value is 25.30 and p value is 0.001 which is less than 0.05. It indicates that there is significant difference in pain score between the group and the mean pain score was less in experimental group with facilitated tucking as compare to control group.

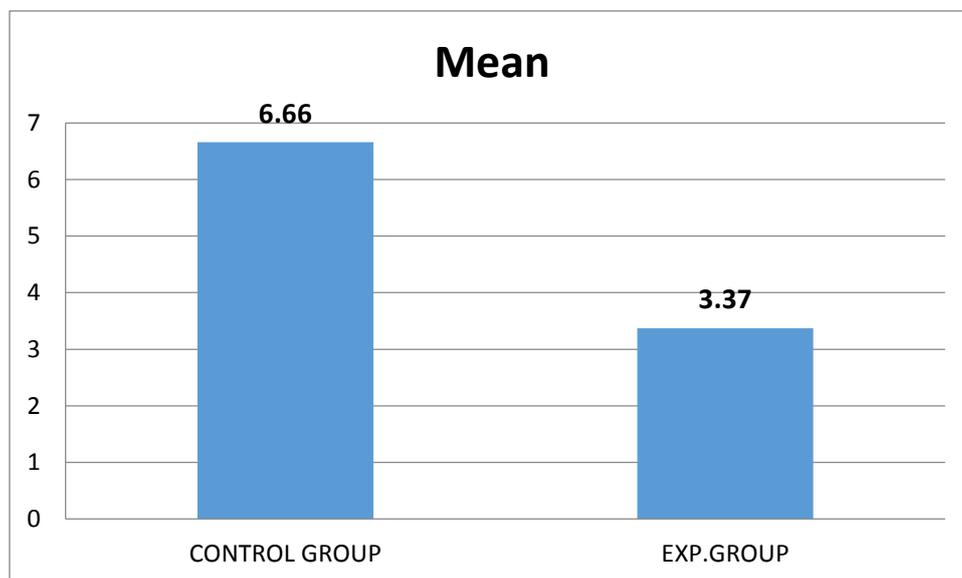


Fig-4: comparison of pain score between control and experimental group.

Discussion: -

Neonate admitted in NICU undergoes many painful procedures everyday like injections, umbilical catheterization and so on. One of the common procedures is IV cannulation. IV cannulation is easily accessible way of giving medications and IV fluids. Different studies done previously regarding reduction of pain during venipuncture procedure. Many other research on facilitated tucking have done to evaluate pain in preterm newborns during heel stick procedure, administration of oral glucose. Facilitated tucking can be easily done in NICU by any on duty staff nurse. Facilitated tucking provide comfort, scene of security to the babies.

This chapter contain a discussion of the findings in comparison with finding from previous reported research and concludes with discussion of study strengths and limitations and of recommendations for research and practice.

AGE IN DAYS: - In control group 37.14% of babies were born between the age of 21-28 days and 28.57% were born between 0-10 days were in experimental group 45.71% were born between 11-20 days were as 25.71% were born between 0-10 days and 34.28% in control group and the babies between 0-10 days were 25.71% were from experimental and 28.57% from control group.

Finding revealed that out of 35 subjects all the neonate had severe pain in control group. According to NIPS Facial Expression was grimace, Cry was Vigorous Cry, Child was very irritable, Child was having mild tachycardia, arms and legs were flexed and state of arousal was fussy in control group.

In experimental group out of 35 subjects 02 (5.71%) of the subjects had no pain and 33(94.28%) had moderate pain and there was no neonate with severe pain. As the child's was not much irritable and cry was not vigorous, it was whimper in breathing pattern was relaxed, state of arousal was awake.

The mean pain score was less in experimental group, it is observed that the babies who received facilitated tucking as an experiment during venipuncture experienced less pain than the babies who did not received facilitated tucking. The mean pain score of control group is 6.66 and experimental group is 3.37. Both group mean is compared by using unpaired t-Test. T- value is 25.30 and P- value is 0.001 which is less than 0.05 which shows that there is significant difference in pain score with facilitated tucking and from the score it is observed that facilitated tucking was effective pain during venipuncture.

Conclusion

Pain is an acute stress that leads to disequilibrium in the physical, physiological, emotional and behavioural parameters to various degree of severity. Neonate are unable to communicate pain verbally and hence are commonly unrecognized and left untreated. A variety of nonpharmacologic pain relief techniques have been shown to effectively reduce pain. And in present study it has observed that the facilitated tucking was effective in reducing pain during venipuncture procedure. This makes the neonate comfortable, more secure with controlled response. Facilitated tucking improves the emotional security and reduces the pain perception. So, it can be used in the clinical practices.

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