

## Effect of Facilitated Tucking Position on Pain Among Infants Receiving Intramuscular Immunization

Vishnu VM<sup>1</sup>, Drisya G<sup>2</sup>

### Authors Affiliation

<sup>1</sup>Lecturer, <sup>2</sup>Associate Professor, Department of Child Health Nursing, Westfort College, College of Nursing, Thrissur, Kerala 680581, India.

### Corrospoding Affiliation

**Drisya G**, Associate Professor, Department of Child Health Nursing, Westfort College, College of Nursing, Thrissur, Kerala 680581, India.

Email: drisyag0@gmail.com

### How to cite this article:

Vishnu VM, Drisya G/Effect of Facilitated Tucking Position on Pain Among Infants Receiving Intramuscular Immunization/ Int J Pediatr. Nurs. 2021;7(2):17-19

### Abstract

A quasi experimental study to assess the effect of facilitated tucking position on pain among infants receiving intramuscular immunization at selected hospital, Thrissur. The objective of the study was to assess the pain score among infants receiving intramuscular immunization in comparison and experimental group, evaluate the effect of facilitated tucking position on pain score among infants receiving intramuscular immunization in experimental group and associate the pain score among infants receiving intramuscular immunization with their selected demographic variables. The conceptual framework utilized in this study was kolkaba's theory of comfort. Nonprobability purposive sampling technique was used to select the samples. Post-test only design was adopted to assess the effect of facilitated tucking position on pain score among 60 infants (30 in experimental and 30 in comparison group) undergoing intramuscular immunization who fulfilled the inclusion and exclusion criteria at Government General Hospital, Thrissur. The tool consists of semi structured questionnaire to assess the demographic variables of infants, includes age, gender, weight, height and time of last feed. Face Leg Anger Cry and Consolability (FLACC) Scale was used to assess the pain score of infants in experimental and comparison group. Reliability and validity of the tool was established. The pilot study was done for 6 subjects and found to be feasible. The main study was conducted from 2nd February to 3rd March 2019. Facilitated tucking was performed on the infants during intramuscular immunization and the pain score was assessed after the procedure and interpreted using FLACC Scale. The study findings revealed that Comparison of pain score in both groups that the calculated 't' value was 7.22, where the table value was 2.390 at 0.001 level of significance. Thus, it was concluded that the facilitated tucking was effective in reducing pain during intramuscular immunization. There was no xii statistically significant association between the pain score among infants receiving intramuscular immunization with their selected demographic variables. Nurses can practice facilitated tucking as a part of routine nursing care of infants during painful procedures.

**Keywords:** Facilitated Tucking Position; Pain Score; Infants; FLACC scale.

### Introduction

Infancy is a period of rapid remarkable changes in growth and development as compared with any other period throughout life. Body and organ systems

although not much fully mature, functions differently than they did at birth. Infants undergo multitude of diagnostic and therapeutic procedures that are painful but medically necessary to their care such as

heel prick, venipuncture, and vaccination etc. According to WHO universal immunization coverage survey, 2016, about 86% of infants' worldwide (116.5 million infants) received 3 doses of diphtheria-tetanus pertussis (DTP3) vaccine, protecting them against infectious diseases that can cause serious illness and disability or be fatal.<sup>2</sup> In India, the immunization rate is 58.5% in rural and 67.4% in urban respectively<sup>3</sup>. In Kerala the immunization rate is 81.5% in rural area and 81.7% in urban area. Routine immunization injections are the most aversive medical procedure for healthy infants and children. Although immunization injections represent a relatively brief exposure to acute pain, studies demonstrated that infant exhibit significant response during these injections. Every child has his/her own perception of pain, which involves not only the actual tissue injury but also the child's understanding, emotions and past history of pain

The International Evidenced Based Group for neonatal pain and the American Academy of Pediatrics (2010) recommended that all neonatal units must develop strategies to assess the painful responses during procedures, minimize the number of minor painful procedure and to provide non-pharmacological pain relief for infants during painful procedure. The investigator during his clinical practice, witnessed that the various behavioral response of the infants during painful procedures. Usually, painful expressions of the fragile infants are not given much clinical importance. Hence the investigator felt the need of simple, cost effective, non-pharmacological nursing intervention to reduce pain.

**Statement of the problem**

A quasi-experimental study to assess the effect of facilitated tucking position on pain among infants receiving intramuscular immunization at selected hospital, Thrissur. Objectives

- Assess the pain score among infants receiving intramuscular immunization in comparison and experimental group.
- Evaluate the effect of facilitated tucking position on pain score among infants receiving intramuscular immunization in experimental group.
- Associate the pain score among infants receiving intramuscular immunization with their selected demographic variables.

**Research methodology**

*Research approach:* Quantitative Approach

*Research design:* Quasi Experimental post-test only comparison group design.

**Variables**

- Independent variable: Facilitated tucking position
- Dependent variable: Pain in infants receiving IM immunization.

*Setting:* Government General hospital, Thrissur

*Population:* Infants receiving immunization

*Sample:* Infant in the age group of 2-4 months receiving intramuscular immunization *Sampling technique:* purposive sampling

*Sample size:* A total number of 60 infants will be selected, out of 30 in the experimental and 30 in the comparison group

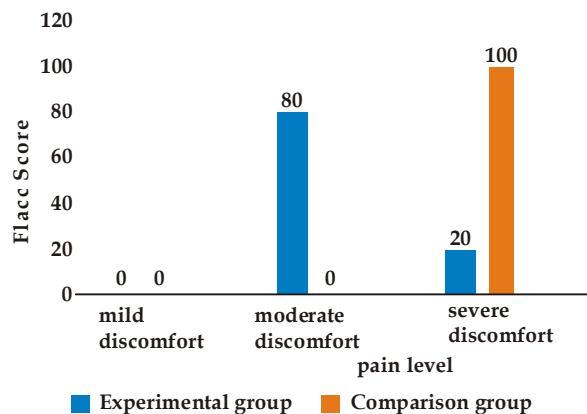
**Tool and technique**

*Tool-1:* A structured questionnaire of demographic data of infant, which is assessed through observation and interview.

*Tool-2:* FLACC scale: The Face, Legs, Activity, Cry, Consolability scale or FLACC

**Results**

This experiment was conducted to assess the effect of facilitated tucking position on pain among infants receiving intramuscular immunization. The experiment was conducted among 60 infants who received intramuscular immunization at Government General hospital, Thrissur. The collected data were analyzed by both descriptive and inferential statistics according to the objectives of the experiment.



Assessment and comparison of post -test level of pain among infants undergoing intramuscular immunization between the experimental and comparison group.

frequency and percentage distribution of subjects by pain score shows that most infants 50% perceive moderate to severe pain in experimental and comparison group.

Comparison of post-test level of pain between experimental and comparison group.

Group	Mean	Standard deviation	Effect Size	Paired 't' test score	Table value	Inference
Experimental	5.97	1.474	2.4	7.227	2.326*	Significant
Control	8.37	1.066				

\*0.001 level of significance

The above table shows that mean pain score of post-test level of pain in the infants who underwent intramuscular immunization with facilitated tucking was significantly less than mean pain score of post-test level of pain in the infants who underwent intramuscular immunization with the hospital routine (verbal pampering).

The calculated paired 't' test value is 7.227 which was found to be highly statistically significant at  $p < 0.001$  level which indicates that the infants who were given the nursing intervention facilitated tucking was comfortable, more secure with controlled response and had reduced pain during intramuscular immunization.

## References

- Behrman R, Kliegman R, Jenson H. Nelson's textbook of pediatrics. London: W.B. Saunders; 1999.
- Datta p. pediatric nursing. new Delhi: Jaypee brothers; 2007.
- Premature infants do feel pain from procedures: Physiological markers for neonate pain identified. Sciencedaily.com. Science daily com. [Online]. Available from: <https://www.sciencedaily.com/releases/2012/07/120702152649.html>. [Accessed 27 April 2019]
- National Institutes of Health (NIH) [Online]. National Institutes of Health (NIH). 2019 [Accessed 11 April 2019]. Available from: <https://www.nih.gov>.
- Impact factor org. Impact factor org. [Online]. Available from: <http://impactfactor.org/PDF/IJPCR/9/IJPCR,Vol9,Issue3,Article16.pdf> [Accessed 20 august 2018].
- International Association for the Study of Pain (IASP) [Online]. iasppain.org. 2019 [Accessed 11 March 2019]. Available from: <https://www.iasppain.org>.
- Hockenberry M, Wilson D. Wong's essentials of pediatric nursing. St. Louis, MO: Mosby/ Elsevier; 2009
- Kucukoglu S, Kurt S, Aytekin A The effect of the facilitated tucking position in reducing vaccination-induced pain in newborns, Nihgov. [Online]. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/26293573>. [Accessed 4 February 2019].

