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**Sinimol RP**

M.Sc. (N), Department of child  
health nursing, Thasiah  
College of Nursing, Tamil  
Nadu, India

## **A study to assess the effectiveness of Helper skin tap technique on pain among infants during intramuscular injection in selected Hospitals at Kanyakumari district**

**Sinimol RP**

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### **Abstract**

**Aim:** The present study was to evaluate the effectiveness of helper skin tap technique on pain among infants during intramuscular injection in selected hospitals at kanyakumari district.

**Methods and Materials:** A Quasi experimental research design was used for this present study. Total 60 samples were collected using non probability convenient sampling technique. The demographic variable and post level of pain during intramuscular injection among infants was assessed using FLACC scale and followed by that the data was collected and analyzed descriptive and inferential statistics

**Results:** The results showed significant association with the level of pain after Intramuscular injection among infants.

**Keywords:** Helper Skin Tap Technique, Intramuscular injection, Infants

### **Introduction**

An infant is the most vulnerable being on each and it is this vulnerability that makes it so endearing. A human baby with its large head and tiny body is a wonderful creation. A new born baby is as helpers and as adorable as a baby can possibly get .Pain is universal, complex and subjective experience. Nurses work in almost all settings and are often associated with people who are suffering from pain. They spend a lot of time with patients who are suffering than other health care provider. Assessing and managing a child with pain is a daily problem for nurses. They are not only the agents, who carry out doctors orders, but also the ones who implement the orders and who work closely with patients to facilitate healing processes. Helper skin tap technique offers a painless injection experience. In this technique rhythmic tapping before and during injection over the skin at the site of injection keeps the muscle relaxed and stimulates large diameter fibers. It provides a mechanical stimulation and distraction during injection and thus helps to reduce pain.

### **Methods and Materials**

The research approach was quantitative approach by using quasi experimental research design used in this study. After getting ethical clearance from the institutional Ethical Committee (IEC) of Thasiah College of Nursing and formal permission from the Head of the selected hospital. The population of the study sample included all infant who were in selected hospital. The study was conducted at selected hospital with 60 samples. Out of which 30 samples in experimental group and 30 samples in control group and the sample were selected by using non probability convenient sampling technique. The tool used for this study was demographic variables and FLACC scale to collect data. Explained the study to the sample parents and got consent from the sample parents. Demographic variables and intramuscular injection pain were assessed for both group. Helper skin tap technique of giving rhythmic taping before injection over the skin at the site injection in two taps and it keeps the muscle relax the and stimulates large diameter fibers after applying helper skin tab technical procedure infants were during intramuscular injection was given for experimental group. Post test was done for both group by using FLACC scale. The data were analyzed by using descriptive and inferential statistics.

**Corresponding Author:**

**Sinimol RP**

M.Sc. (N), Department of child  
health nursing, Thasiah  
College of Nursing, Tamil  
Nadu, India

## Results and Discussion

### Section a: Description of the demographic variables of infants

Among 60 study participants with regards age 9(28.33 %), belongs to the age group of 8-12 weeks and 13-14 weeks, with regards sex female 31(51.6%), with regards number of

sibling majority of the one 31(51.6%), with regards mode of delivery majority vaginal delivery 29(48.3%), with regards birth weight of the baby the majority of 2501-3500 41(68.3).

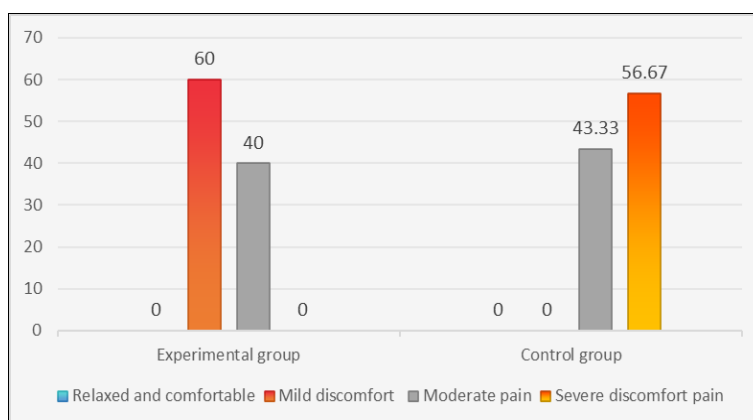
### Section-B: Assessment post test level of pain among infants during intramuscular injection

**Table 2:** Frequency and Percentage distribution of post test level of pain among infants n=60

Level of pain	Experimental group		Control Group	
	f	%	f	%
Relaxed and comfortable	0	0.00	0	0.00
Mild discomfort	18	60.00	0	0.00
Moderate pain	12	40.00	13	43.33
Severe discomfort pain	0	0.00	17	56.67
Total	30	100.00	30	100.00

The analysis revealed that majority of the sample, subject that is 18(60%) had mild discomfort 12(40%) had moderate level of pain. No one had severe discomfort of pain and relaxed and comfortable in the post test of experimental

group. In control group majority of the sample subject that is 17(56.67%) had severe discomfort pain, 13(43.33%) had moderate pain 0 (0.00%) had mild discomfort 0(0.00%) had relaxed and comfortable. (Table 1)



### Section C: Effectiveness of helper skin tap technique during intramuscular injection among infants

#### Frequency and percentage distribution of effectiveness of helper skin tap technique during intramuscular injection among infants

Group	test	mean	SD	't' test	Level of significance
Experimental group	Post	3.40	1.86	6.47	P=0.0001 S***
Control group	post	6.83	2.28		

The table -2 shows that the post test experimental group mean was 3.40 with standard deviation 1.86 and in the control group mean was 6.83 with standard deviation 2.28. The paired t test =6.47 reveals that there is effectiveness of helper skin tap technique on reducing level of pain during intramuscular injection among infant at the level of  $P < 0.001$ .

### Section D: Association between the post test level of pain during intramuscular injection in experimental group and control group with the selected demographic variables and clinical variables.

This study revealed that there is no association between post test level of pain among infants and their selected demographic variables and clinical variables.

### Conclusion

The calculated paired t test value 6.47 was found to be statistically highly significant at  $p < 0.001$  level. The study was concludes that the helper skin tap technique Was effective to reduce the pain among infants during

intramuscular injection.

This study was supported by ABHIJA P.V (2015) who conducted study to assess the effectiveness of helper Skin Tap Technique in Pin Reduction among Infants Undergoing Intramuscular Vaccination in Tertiary Centre Setting, Coimbatore by using Numerical pain rating scale. The result showed that the posttest mean pain score in the experimental group 2.52 with standard deviation 1.58 and in the control group was 6.59 with standard deviation 2.10. The mean pain score difference between the experimental and control group was high and statistically significant. That means both scores are distinct. Hence it concludes the helper skin tap technique was effective to reduce the pain score among infants during intramuscular injection.

### Acknowledgment

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### Conflict of Interest

Not available.

### Financial Support

Not available.

### References

1. Achar's. Textbook of Pediatrics. 4<sup>th</sup> ed. Hyderabad: Universities Press; 2009.
2. Pilitteri A. Child Health Nursing. 5<sup>th</sup> ed. Philadelphia: W.B. Saunders; 2007.
3. Abhija PV. A study to assess the effectiveness of Helper

- skin tap technique in pain reduction among infants undergoing intramuscular vaccination in tertiary centre setting, Coimbatore. *Int J Nurs Midwifery Res.* 2019; (E-ISSN:2455-9318).
4. Suganandam DK, Anand JR, et al. An experimental study to determine the pain response among patients receiving intramuscular injection. *Indian J Pain.* 2020;34:34-8.
  5. Sivapriya S, Kumari L. A study to assess the effectiveness of Helfer skin tap technique on pain during intramuscular injection among neonates born in labour room of a selected tertiary level hospital, UP. *Int J Sci Res.* 2015;4(1):56-57.
  6. Meera P, Yogesh K, Gurneet K. A study to assess the effectiveness of Helfer skin tap technique during immunization in infants in selected hospitals and anganwadi of Ambala. 2014;4(3).
  7. Shah S, Narayanan A. Effect of Helfer rhythmic skin tap technique on procedural pain among patients receiving intramuscular injection. *Manipal J Pediatr Nurs.* 2012;2(1):3-9.
  8. Sparks L. Effective intervention for reducing immunization pain. *J Pediatr Nurs.* 2014;51(2):74-8. DOI:10.1155/2017/3273171.
  9. Vathani G, Kumari MJ. To assess the effectiveness of Helfer skin tap technique on pain reduction among patients receiving intramuscular injection. *Int J Curr Res.* 2017;9(9):57-60. DOI:10.15520/ijnd.2016.vol6.issue2.135.12-22.
  10. Intramuscular injections in children. ResearchGate. <https://www.researchgate.net/publication/6347887-intramuscular-injections-in-children>

**How to Cite This Article**

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