

A study to assess the effectiveness of helper skin taps technique on pain reduction during intra muscular injection among school age children (6-12yrs) in pediatric unit of shri mahant indires h hospital, patel nagar Dehradun

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Abstract: A study to assess the effectiveness of Helper skin taps technique on pain reduction during intra muscular injection among school age children (6-12yrs) in pediatric unit of Shri Mahant Indires h hospital, patel nagar dehradun. **Objective of the study:** To assess the pain level of school age children during intramuscular injection with usual standard techniques. To assess the pain level of school age children during intra muscular injection with Helper skin tapping techniques. To determine the effectiveness of Helper skin tap technique among school age children during intra muscular injection. To find out the association between the level of pain perception in school age children with the selected socio-demographic variables. **Methodology:** The research design adopted for the study is pre experimental one group pre test post test only group design. The conceptual frame work used in the study was based on Widenbach's helping art of clinical nursing theory. Variables under study were pain as dependent behavior and Helper skin tap technique as independent behavior. The tools used for the study were demographic data, Revised Wong Baker pain scale. The data collected were analysed and interpreted by using descriptive and inferential statistics. **Results and Interpretation:** The mean score regarding pain level in pre test is 8.46 which is more than the post test value 3.33. The value of 't' test is 3.11 with table value 59 at 0.05 level of significance was found to be significant. So, in this study it was found that Helper skin tap technique was effective in reducing pain among children during intra muscular injection. There is significant association was found in demographic variables (area of living) in pre test at 0.05 level of significance. Hence the research hypothesis is accepted. **Conclusion:** The following conclusions were based on the findings of the study. Study revealed that in response to introducing Helper skin tap technique in post test score for pain ($m=3.33$) was lower than the mean score of pre test (8.46), and the calculated 't' value is greater 3.11 than the table value at 0.05 level of significance. The findings shows that Helper skin tap technique was effective in reducing pain level among school age children (6-12 yrs) during intra muscular injection.

Key Words: Helper skin tap technique, intra muscular, pain, school age children, effectiveness

1. INTRODUCTION:

Injections are the safest and most effective way to prevent serious illness and death. In fact, injections prevent approximately 2.5 million deaths every year. However, despite the success of injections in preventing morbidity and mortality, some countries struggle to maintain high levels of injection update. For example, in 2016 only 69% of Indian children aged 19–35 months had fully completed a combined series of childhood injections. (WHO, 2016). There are 16 billion intramuscular injections administered annually throughout the world (WHO, 2011). In developing countries alone, sixteen thousand million injections are administered annually. Over 90% are administered for therapeutic aims whereas 5 to 10% are administered for disease prevention; the foremost important side-effect associated with injections is pain (WHO, 2011). 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 intramuscular injection and thus helps to reduce pain as described in gate control theory by Roger Metzack and Past Wall in 1965. Age may affect the absorption metabolism and excretion of drugs. Senior citizens may experience more pain due to less subcutaneous fat. Severity of pain will differ from person to person. Helper skin tap technique developed by Ms Joanne Keiffer Heifer BSN.RN in 1998 is an attempt to alleviate pain in which tapping of the skin over the injection site before and during the procedure is done to relax muscle. Helper skin tap technique is one among the types of touch therapy. Skin tap technique includes tapping over the intramuscular injection site with the palmer aspect of the dominant hand sixteen times to relax the muscle making a —V with the thumb and other fingers of the non dominant hand and tap the skin again for three times during the insertion and removal of the needle. The mechanical tapping

stimulation over the skin by this technique alters the balance between the small diameter fibres that carry pain to the brain, and the large diameter fibers that do not carry pain. The large diameter fibres i.e. non-pain fibres block the small diameter fibres to slower the response to pain through effective skin tapping. Joanne H. (2000).

2. LITERATURE REVIEW:

ABHIJA P.V (2015), conducted a study to evaluate the effectiveness of heifer skin tap technique on pain associated with intra muscular injection a quantitative approach using pre experimental one group pre and post test design. 100 hospitalized children undergoing intramuscular injection have pain using non-probability convenient sampling techniques from nataraj hospital. Helper skin tap technique is administered 3 times before inserting the needle and 3 times after removing the needle. Standardized mcaffery 0-10 numerical pain scale to assess the level of pain associated with intramuscular injection. Analysis among experimental group by using paired_t' test found significant value 54.02 at p< 0.05 level. Helper skin tap technique is effective on pain associated with intramuscular injection among hospitalized patient.

Maj Sivapriya, Col Leena Kumari (2013), conducted a true experimental study to assess the Effectiveness of Helper Skin Tap Technique on Pain During Intramuscular Injection Among Neonates. to assess the pain level of neonate during intramuscular injection with usual standard technique and To assess the pain level of neonate during intra muscular injection with Helper skin tap technique and to compare the pain level of neonates during intramuscular injection with 34 and without the use of Helper skin tap technique by using True experimental post test control design. The present study findings supported that there is a significant difference in the pain score in the IM administration with Helper skin tap technique. The study findings high lights that 86 % of the neonates in the experimental group had mild pain, only 14% perceived severe pain during IM injection by using Helper skin tap technique. 86 % of the neonates in the control group had severe pain, only 14% perceived moderate pain during IM injection by using conventional routine technique There is a significant decrease in the pain score between the administration of IM injection with Helper skin tap technique with <0.05 This study explored the effect of Helper skin technique (rhythmic tapping) over the skin before and during IM injection in relation to pain. The present study findings supported that there is a significant difference in the pain score in the IM administration with Helper skin tap technique. This reduction in pain results in the better adaptation of neonates into the extra uterine environment.

3. MATERIAL AND METHODS:

Research design: Pre experimental one group pre test post test research design.

Setting: Shri Mahant Indiresh hospital, pediatric unit Patel nagar Dehradun.

Sample: sample comprises of 60 children present in pediatric unit.

Sampling technique: Convenient sampling technique was used to select 60 samples.

Data collection procedure: Revised Wong Baker scale was appropriate tool for data collection. Usual technique of intra muscular injection used in pre test group and Helper skin tap technique used for the post test group. Pain score are rated with the scale appropriately.

Data analysis: the researcher planned to analyze the data in the following manner:

Section A: Description of sample characteristics.

Section B: Association of demographic variables with pain level in both group.

Section C: Effectiveness of Helper skin tap technique among school age children during intra muscular injection.

4. DISCUSSION:

Based on the objectives of the study, Helper skin tap technique was used to assess its effectiveness on pain among school age children undergoing intra muscular injection.

Table: Effectiveness of Helper skin tap technique among school age children during intra muscular injection.

S.NO.	GROUP	MEAN	SD	DF	“t” VALUE	TABLE VALUE	P VALUE
1.	Pre test	8.46	1.56	59	3.11	2.00	SIGNIFICANT
2.	Post test	3.33	1.48				

7. RECOMMENDATIONS:

- An exploratory study can be conducted to assess the effect of Helfer skin tap technique on pain reduction during intramuscular injection.
- A comparative study can be done on behavior response and pain during intra muscular injection.
- A similar study can be under taken with a large sample to generalize the findings.

8. CONCLUSION:

The result of the study proved the effectiveness of Helfer skin tap technique on reduction pain level in school age children (6-12yrs).

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