

Effectiveness of Heifer Skin Tap Technique Vs Usual Standard Technique in Reducing Pain During Intra-Muscular Injection Among Adult Patients in Selected Hospital, Kelambakkam, Kanchipuram District.



MEDICAL SCIENCE

KEYWORDS :
EFFECTIVENESS, HEIFER SKIN TAP
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ABSTRACT

Aim: To assess the effectiveness of Heifer Skin Tap technique Vs usual standard technique in reducing Pain during Intra-Muscular Injection among adult patients in selected hospital, Chennai. Methods and Materials: A evaluative approach was used for the present study. The participants were about 60 in number (30 in experimental and control group) and simple random sampling technique was used. Data was collected by administering a structured questionnaire, heifer skin tap technique and assessing the pain. Results: The result shown that experimental group 87% had mild pain, 10% moderate pain and only 3% had severe pain. In control group 83% had moderate pain, 17% had severe pain. The analysis reveals that in the experimental group, the post test mean value was 2.333 with SD 0.8442 and in control group the post test mean score 5.567 and SD 1.2780. The study results Shows that there was a significant association between the selected demographic variables and post level pain score with age, educational status, occupation. Conclusion: The study result shows that Heifer skin tap technique has good impact in reducing pain than standard usual technique during IM injection.

INTRODUCTION

Injections are the most frequently used medical procedure, with an estimated 12 billion administered throughout the world on an annual basis. Of these 5% or less are for immunisation and rest are given for curative purposes. In India, a survey conducted found that 96% of all injections given by private doctors were of antibiotics, vitamins and analgesics. Intramuscular injection can be an unpleasant experience for patients, making an appropriate explanation and psychological support necessary. Pain is the most common reason for self deferral from injections by the inpatient and outpatient clients in the hospital. "Will it hurt?" is a question that is most often heard by the nurses from the patients during any invasive procedure. Being able to provide injections to patients with a less painful experience is a part of standard nursing care. Is it possible to give injections that do not hurt.

A fundamental principle of responsible medical care is not 'do not hurt' but 'do not harm' since pain is harmful, the caregivers are committed in preventing harm to their patients³. The nurse can minimize the discomfort and pain during Intra muscular injection by helping the client assume a position that will help to reduce the muscle strain. Heifer Skin Tap Technique was proposed by Joanne heifer. Even though heifer skin tap technique has got some effect on pain during intramuscular injection administered on gluteus maximum muscle, the researcher felt the need to compare their effects. Hence the researcher felt the need to compare the effect of usual massage and heifer skin tap technique on level of pain during intramuscular injection among adult patients.

MATERIALS AND METHODS:

- Setting: This study was conducted in injection OPD and wards in Chettinad hospital and research Institute, Chennai.
- Research approach: The approach used for this study was evaluative approach.
- Research design: Experimental design
- Sample: 60 (30 in experimental and 30 in control group)

- Sampling technique: Simple random sampling method.

Inclusion criteria:

- Both male and female patients within the age group of 25-55 Years
- Patients those who are willing to participate and who can understand Tamil or English.
- Adults patients receiving injection through Intra muscular route who were admitted in the ward and attending outpatient department in selected hospital.

Exclusion criteria

- Patients who are receiving chemotherapy and known case of Neuropathy.
- Immediate Post operative patients (0 POD).
- Critically ill patient.

Data collection instruments:

- Demographic proforma
- Pain scale

Description of tool:

The tool consisted of three aspects:

- **SECTION 1:** The structured questionnaire consists of closed ended questions to elicit the information on demographic data. It consists of demographic variables like age, sex, educational status, marital status, occupation, income, and habit of smoking, habit of alcohol intake and history of hypertension.
- **SECTION 2 :** Assessment of pain by using 10 point Wong Bakers pain scale.
- **SECTION 3:** Protocol for Heifer skin tap technique. It is a technique in which the investigator tapping over the intramuscular injection site with the palmar aspect of fingers 16 times before insertion and 3 counts of tap during and after procedure.

Data Collection Procedure

The study was conducted in CHRI after the written permission from the authorities. 60 adults was selected using simple random sampling technique who was getting IM injection. Among the adults numbering was given and even numbers 30 samples were taken for experimental

group and odd numbers for the control group. The objective of the study was explained and Informed consent was obtained from both the groups. Demographic data was collected by using structured questionnaire from the samples. Heifer skin tap technique used for experimental group and usual standard technique for control group during IM injection. The level of pain was assessed by using Wong Becker 10 point pain assessment scale. The nurse investigator thanked the participants for their cooperation throughout the data collection period. The pain was assessed after intervention and collected data analysed by using descriptive and inferential statistics.

RESULTS:

The posttest level of pain among adults was assessed by Wong Becker pain scale and analyzed using descriptive statistics. The result reveals that in experimental group 87% had mild pain, 10% moderate pain and only 3% had severe pain. In control group 83% had moderate pain, 17% had severe pain. The analysis reveals that in the experimental group, the post test mean value was 2.333 with SD 0.8442 and in control group the post test mean score 5.567 and SD 1.2780. The study result reveals that Heifer skin tap technique has good impact in reducing pain than standard usual technique. The study results show a difference in the post test pain level among adults during intramuscular injection in experimental group.

Data depicts depicts that in the experimental group, the post test mean value was 2.333 with SD 0.8442 and in control group the post test mean score 5.567 and SD 1.2780 which projects 't' value of 9.97 which was statistically significant at $p < 0.05$ level. The calculated 't' value for is 9.97 which is greater than the table value. The computed 't' value shows that there is significant difference between post test level of pain between experimental and control group. Based on these results the research hypothesis was accepted. This indicates that Heifer Skin Tap technique is effective in reducing pain during intramuscular injection. The study results also Shows that there was a significant association between the selected demographic variables like age, educational status, occupation with post level pain score at $p < 0.05$ level.

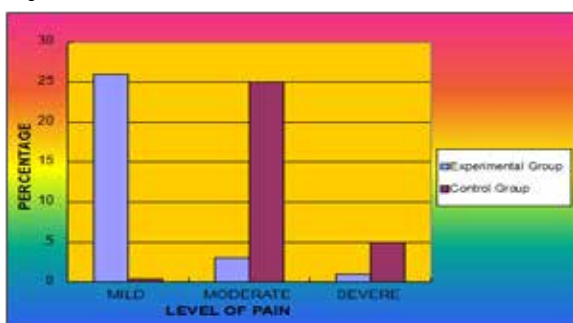


Fig 1: Percentage distribution of samples according to the post test level of pain score among adults in experimental and control group.

DISCUSSION

The study was conducted to assess the difference in the post test pain level among adults during intramuscular injection in experimental and control group. Data depicts that in the experimental group, the post test mean value was 2.333 with SD 0.8442 and in control group the post test mean score 5.567 and SD 1.2780 which projects 't' value of 9.97 which was statistically significant at $p < 0.05$ level. The calculated 't' value for is 9.97 which is greater than the table value. The computed 't' value shows that there is significant

difference between post test level of pain between experimental and control group. Based on these results the research hypothesis was accepted. This indicates that Heifer Skin Tap technique is effective in reducing pain during intramuscular injection.

A similar study was conducted on rhythmic skin tapping technique to reduce procedural pain during intramuscular injections. Objectives were to determine the pain level of adult patients during IM injection with usual standard technique. To determine the pain level of adult patients during IM injection with 'Heifer skin tap technique'. To compare the pain levels with and without the use of 'Heifer skin tap technique' to compare the pain level with selected variables. One group pre-test post-test design was adopted for this study. A purposive sampling technique guided by inclusion criteria was used to select 60 adult patients from orthopedic and trauma ward. Data collection tool includes: Interview schedule for the collection of baseline information, 0-10 numerical pain intensity scale to assess pain level after each injection, A table to record pulse rate the overall mean pain intensity by using skin tap technique (1.5±1.1) was much lower than the pain Experienced by using conventional method. the mean value of pain level is greater in females than in males with both techniques. There was no significant association between pain level and other baseline variables like age, diagnosis, previous hospitalization and education The above observations highlight the effectiveness of 'skin tap technique' to reduce procedural pain. The study also helps to relate theoretical knowledge and quality care, which can be implemented by nursing personnel, in the daily practice. Both the study results reveals Heifer skin tap technique is one of the effective method in reducing the pain during IM injection.

CONCLUSION:

Based on the findings of the study the conclusion was drawn. From the inferences and comparisons, it was established that the Heifer skin tapping technique was found to be very effective in reducing pain during IM injections. The findings of the study revealed that there were significant changes of pain level among adults during intramuscular injections in experimental group during intramuscular injections and minimal changes in pain level in the control group who was on usual standard method. On the basis of this the null hypothesis was rejected and the research hypothesis was accepted. So, the investigator the nurses can attempt to minimize discomfort by following Heifer skin tap technique during IM injection.

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