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Effectiveness of Helfer's Skin Tap Technique Versus Routine Technique on Pain Reduction among Patient's Receiving Intramuscular Injections

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ABSTRACT

Background: Pain is an affliction feeling often caused by exaggerated or injurious stimuli because it is a complex and subjective phenomenon. Pain is a horrible sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage." Pain motivates the individual to withdraw from injuriously situations, to protect a damaged body part while it heals, and to avoid similar experiences in the future. Most of the time pain resolves once the noxious stimulus is removed and the body has healed, but it may persist despite removal of the stimulus and apparent healing of the body. Sometimes pain arises in the absence of any detectable stimulus, damage or disease.

Material and method: A true experimental pre-test and post-test control group design was used. The sample was consisted of 60 patients receiving IM injection selected using simple random sampling technique. Reliability of the tool was assessed by using the Cronbach's Alpha method. The correlation coefficient was 0.800.

Conclusion: Based on the analysis of the findings of the study, the following inferences were drawn. There was a significant reduction in pain among patients after administration of Helfer's skin tap technique. Thus it proved to be an effective treatment for pain. Therefore, this intervention should be promoted as an institutional policy and implemented as a routine care for all patients following IM injection for effective management of pain.

Keywords- *Helfer's skin tap technique, pain, IM injection.*

INTRODUCTION

Pain is an affliction feeling often caused by exaggerated or injurious stimuli because it is a complex and subjective phenomenon. Pain is a horrible sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage." Pain motivates the individual to withdraw from injuriously situations, to protect a damaged body part while it heals, and to avoid similar experiences in the future. Most of the time pain resolves once the noxious stimulus is removed and the body has healed, but it may persist despite removal of the stimulus and apparent healing of the body. Sometimes pain arises in the absence of any detectable stimulus, damage or disease.[1]

Pain is the most habitual for physician consultation in most developed countries. It is a major symptom in many medical conditions, and can interfere with a person's quality of life and general functioning. Simple pain medications are useful in 20% to 70% of cases.[2]

Intra muscular injection is common yet a complex technique used to deliver medication deep into the large muscles of the body. Intra muscular injection route provides faster drug absorption than the subcutaneous route because the muscles have greater vascularity.

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There are several factors which influences person experiences of pain during Intra muscular injection for example anxiety, culture, age, gender, and expectation of pain relief. These factors may increase or decrease the experience of pain during Intra muscular injection.[3]

A pain-producing stimulus sends an impulse across a peripheral nerve fiber. The pain fiber enters the spinal cord and travels one of several routes until ending within the gray matter of the spinal cord. There the pain message interacts with inhibitory nerve cells and preventing the pain stimulus from reaching the brain to the cerebral cortex. Once a pain stimulus reaches the cerebral cortex the brain interprets the quality of pain and processes information about past experience, knowledge and cultural associations in the perception of pain.[4]

Comfort is an important need, and ensuring a patient's comfort is a major nursing responsibility. Health care interventions can be undertaken on the basis of customs and habits that practitioner no longer critically question. The term 'custom and practice' is commonly used to describe this phenomenon of practicing health care interventions based on customs and habits. In the medical practice, intramuscular (IM) injection is one of the most frequent procedures done almost every day. It is a fact that any intra muscular injection will cause pain at the site of injection.[5]

A fundamental principle of responsible medical care is do not hurt' but 'do not harm' since pain is harmful, the caregivers are committed in preventing harm to their patients. 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.[6]

Pain management is one of the main facets of nursing care, where nurses need to be competent. Pain management during invasive procedure is a challenge to the direct care providers. If there is a technique, by which the nurses can provide painless injections that will be a great relief for those clients who are afraid of needles. [7]

Helfer's skin tap technique offers a painless/ less painful 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 PastWall in 1965.[8]

METHOD

A true experimental pre-test and post-test control group design was used. The sample consisted of 60 patients receiving intramuscular injection selected using simple random sampling technique and was randomly allocated in experimental and control group using lottery method. Control group received standard treatment where as Experimental group received helfer's tap technique along with standard treatment. Informed consent was obtained from caregiver. The study excluded the patients with chronic pain associated with other disease condition, sedated, critically ill and unconscious patients, patients have impaired circulation, peripheral vascular disease, patients who had undergone any painful procedure within one hour before the intervention.

DATA COLLECTION PROCEDURE:

Data collection methods:

1. Prior permission was obtained from authorities of college and the hospital for conducting the research study.

2. The Investigator introduces himself to the patients receiving intramuscular injection and notifies about his aims objectives and steps of the study.

3. Consent was taken from the subject included in the study.

4. Demographic data was obtained using a structured interview technique.

5. The experimental group was subjected to Helfer's skin tap technique before and after the procedure of intramuscular injection.

Helfer's skin tap technique: It's a method in which the researcher taps the muscle which is intended to use with the palmar side of fingers sixteen times before insertion and while removing the needle continuously tap during intra muscular injection which reduces the pain.

Routine technique: It is the method in which the researcher makes V shape with thumb and forefinger and

cleans the site of injection with alcohol swabs before administering intramuscular injection.

6. The level of pain of the control and experimental group was assessed after the procedure of intramuscular injection administration using comparative pain scale to determine the effectiveness of Helfer's skin tap.

7. Data analysis was done by using the descriptive and inferential statistic.

RESEARCH

Table : Comparison of level of pain scores between the experimental and control by using independent't' test

N=60					
INDEPENDENT "T" TEST					
	Mean	**SD**	**'t' value**	**d.f**	**'p'value**
Helfer's skin tap	1.7	0.6	11.031	d.f value1=58 d.f value2=56.887	<0.001**
Routine care	3.7	0.7			

**** Denotes significant at 1%level**

INTERPRETATION:

Revealed that comparison of the scores of pain between experimental and control groups obtained were $p< 0.001$. This suggests that there was highly significant difference observed, i.e. reduction in pain among patient who all are receiving IM injection in the experimental group observed, is not by chance and is because of the intervention (helfer's skin tap) provided to the experimental group.

DISCUSSION

A comparative study on helfer's skin tap versus routine care patient receiving IM injection was conducted in sharda hospital Greater Noida with the objectives to assess the level of pain among patients receiving IM injection by using standardized comparative pain scale and demographic data Performa. The study was conducted through signing consent form and filling demographic variables, then IM injection given to control and experimental group respectively. A true experimental design and probability sampling technique.

CONCLUSION

Based on the analysis of the findings of the study, the following inferences were drawn. There was a significant reduction in pain among patients after administration of Helfer's skin tap technique. Thus it proved to be an effective treatment for pain. Therefore, this intervention should be promoted as an institutional policy and implemented as a routine care for all patients following IM injection for effective management of pain.

Conflict of Interest: Nil

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