



RESEARCH ARTICLE

A STUDY TO EVALUATE THE EFFECTIVENESS OF HEIFER SKIN TAP TECHNIQUE ON PAIN ASSOCIATED WITH INTRA MUSCULAR INJECTION AMONG HOSPITALIZED ADULTS IN SELECTED HOSPITAL AT COIMBATORE

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Abstract

Introduction: Hospitalized adults undergoing intramuscular injection have pain. In this context, complementary therapy like Heifer skin tap technique has its own significance, thus enhancing the scope of nursing.

Objective: To evaluate the effectiveness of Heifer skin tap technique on pain associated with intramuscular injection.

Design: A quantitative approach using pre experimental one group pre and post test design.

Participants: 100 hospitalized adults undergoing intramuscular injection have pain using non-probability convenient sampling techniques from Nataraj hospital.

Intervention: Heifer skin tap technique is administered 3 times before inserting the needle and 3 times after removing the needle. **TOOLS:** Standardized MCAFFERY 0-10 numerical pain scale to assess the level of pain associated with intramuscular injection.

Results: Analysis among Experimental group by using paired 't' test found significant value 54.02 at $p < 0.05$ level.

Conclusion: Heifer skin tap technique is effective on pain associated with intramuscular injection among hospitalized adults.

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Introduction:-

Intramuscular injections are used to deliver drugs and vaccines. They are a common practice in modern medicine. Several drugs and almost all inactivated vaccines are delivered this way. Intramuscular injections are used when other types of delivery methods such as oral, intravenous etc are not recommended. Administering medication intramuscularly can produce a variety of serious adverse effects including pain at the injection site, skin and tissue trauma, allergic reactions, abscess, hematoma, injury to the blood vessels, nodules etc. Among this, pain at the injection site or the localized muscular pain is the most common adverse effect experienced as a result of intramuscular injection. Heifer Skin Tap Technique was proposed by Joanne Helfer. Heifer skin tap may not only help to relief pain due to intramuscular injection but also reduce needle anxiety, and relax the skin and for distracting the patient. The mechanism of heifer skin tap technique is gate control theory. In Heifer skin tap technique while doing tapping before intramuscular injection the nervous system will shut down the sensory gate and the pain sensation of the injection will not reach the brain. So the injection pain goes unnoticed.

Statement of the Problem

A Study to Evaluate the Effectiveness of Heifer Skin Tap Technique on Pain associated with Intramuscular Injection among Hospitalized Adults in Selected Hospital at Coimbatore.

Objectives:-

The objectives of the study were

1. To assess the pre and post test level of pain associated with intramuscular injection among hospitalized adults.
2. To evaluate the effectiveness of Heifer skin tap technique on level of pain associated with intramuscular injection among hospitalized adults.
3. To determine the association between post test level of pain associated with intra muscular injection among hospitalized adults with their selected demographic variables.

Hypotheses

- H1: There is a significant difference between mean pretest and post test level of Pain associated with intramuscular injection among hospitalized adults.
- H2: There is a significant association between level of post test pain associated With Intramuscular injection among hospitalized adults and their selected Demographic Variables.

Research Methodology:-**Research Design**

A pre experimental one group pre test post test design was chosen for the study.

Sample

The sample of the study was selected by adopting non probability convenient sampling technique. The total sample size was 100 and they were selected based on inclusion criteria.

Tool**Part A**

It consisted of demographic variables of hospitalized adults that includes age, gender, religion, educational status, occupation, habit of practicing muscle exercise, form of drug, history of allergic reaction due to intramuscular injection previously, volume of substance injected, Previous exposure to intramuscular injection.

Part B

It consisted of standardized MCAFFERY 0-10 numerical pain scale. It is a standardized numerical scale used to assess the level of pain in adults. It consists of 0 to 10 scores and four categories '0' belongs to none. '1, 2, 3' belongs to mild category. '4, 5, 6' belongs to moderate category. '7, 8, 9, 10' belongs to severe category. The samples given the score according to their pain perception before and after the intervention.

Result:-**Section I: Data on Demographic Variables of Hospitalized Adults**

Frequency and Percentage Distribution of Demographic Variables among Hospitalized adults.

N=100			
S.No	Demographic Variables	Frequency (f)	Percentage (%)
1	Age (in years)		
	a. 20-29 years	28	28
	b. 30-39 years	51	51
	c. 40-45 years	21	21
2	Gender		
	a. Male	49	49
	b. Female	51	51
3	Religion		

4	a. Hindu	84	84
	b. Muslim	16	16
	c. Christian	0	0
	d. others	0	0
	Educational status		
	a. Primary education	67	67
	b. Secondary education	30	30
	c. Higher secondary education	3	3
	d. Graduate and above	0	0

(Contd.,)

S. No.	Demographic variables	Frequency (f)	Percentage (%)
5	Occupation		
	a. Heavy worker	10	10
	b. Moderate worker	56	56
	c. Sedentary worker	34	34
6	Habit of practicing muscle exercise		
	a. Yes	5	5
	b. No	95	95
7	Form of drug		
	a. Suspension	5	5
	b. Aqueous	95	95
8	History of any allergic reaction due to intra muscular injection previously		
	a. Yes	0	0
	b. No	100	100
9	Volume of substance injected		
	a. <2ml	91	91
	b. >2ml	9	9
10	Previous exposure to intramuscular injection		
	a. Yes		
	b. No	100	100
		0	0

Section II: Data On Level Of Pain Associated With Intramuscular Injection Among Hospitalized Adults.**Frequency and Percentage Distribution on Pre-test Level of Pain associated with intramuscular Injection among Hospitalized Adults.**

N=100

Level of Pain	Frequency (f)	Percentage (%)
No pain	0	0
Mild pain	0	0
Moderate pain	63	63
Severe pain	37	37

Frequency and Percentage Distribution on Post-test Level of Pain associated with intramuscular Injection among Hospitalized Adults.

N=100

Sl. No.	Level of Depression	Frequency (f)	Percentage (%)
1	No pain	25	25
2	Mild pain	75	75
3	Moderate pain	0	0
4	Severe pain	0	0

Section III: Data on Effectiveness of Heifer Skin Tap Technique on Pain Associated With Intramuscular Injection among Hospitalized Adults

Mean, Standard Deviation, Mean Difference and 't' Value on Pre test & Post test Level Of Pain Associated With Intramuscular Injection Among Hospitalized Adults.

N=100

S.NO.	Level of Pain	Mean	Standard Deviation	Mean Difference	't' Value
1.	Pre-test	6.13	1.08	4.8	54.02*
2.	Post-test	1.35	1.01		

* - Significant at $p < 0.05$ level

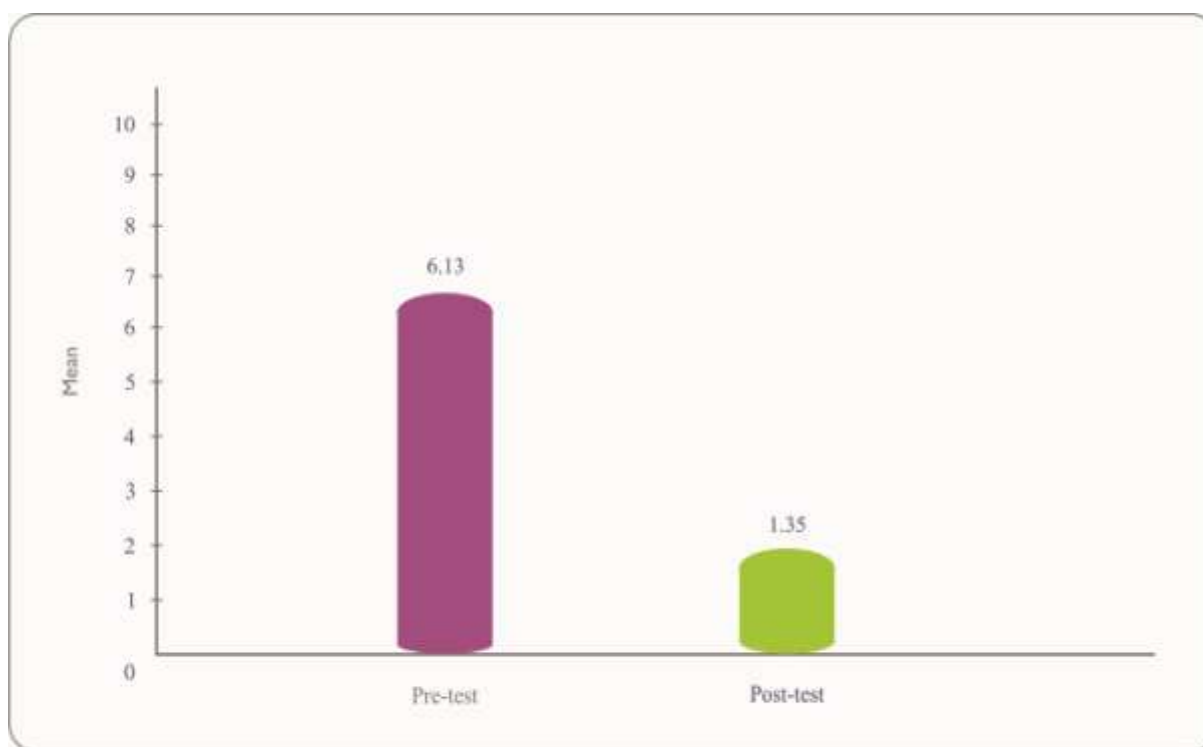


Fig 5 : Mean, Standard Deviation, Mean Difference and 't' Value on Pre test & Post test Level Of Pain Associated With Intramuscular Injection Among Hospitalized Adults.

Conclusion:-

The main conclusion drawn from the present study most of the hospitalized adults had moderate and severe pain in pre test and mild and no pain in post test. This shows that the Heifer skin tap technique was effective on reducing pain associated with intramuscular injection among hospitalized adults.

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