



ORIGINAL RESEARCH PAPER

Nursing

A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF HELPER SKIN TAP TECHNIQUE VERSUS CONVENTIONAL TECHNIQUE ON PAIN ASSOCIATED WITH INTRAMUSCULAR INJECTION AMONG ORTHOPEDIC ADULTS IN SMCH.

KEY WORDS: Helper Skin Tapping Technique (HST), Conventional Technique (CT), IM injection, Numerical Pain Scale, orthopedic surgery adults.

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ABSTRACT

Pain is an uncomfortable feeling that even a tiny amount of it is enough to ruin every enjoyment. Pain may be extremely unpleasant and a really personal sensation that is not be shared with others; it can occupy all an individual's thinking and alter an individual life, yet pain may be a scary neither sees nor feels patients pain. Hence the study aimed to assess the effectiveness of Helper Skin Tap Technique versus conventional Technique on pain associated with intramuscular injection among orthopedic adults. Experimental Research design was employed with 60 samples who matched the inclusion criteria were selected by non-probability convenience sampling technique. Demographic variables were collected by using multiple choice questionnaires followed by test was done by using Numerical Pain Scale for both control and Experimental group. The result shows that there is a significant reduction in pain perception scores of patients receiving IM injections with HST, compared to that with CT. This study shows that the use of HST is highly effective in reducing pain perception during IM injection

INTRODUCTION:

Every human being in the world has experienced some type or degree of pain for which the individuals get health care. Pain may be extremely unpleasant and a really personal sensation that is not be shared with others; it can occupy all an individual's thinking and alter an individual life, yet pain may be a scary neither sees nor feels patients pain. Non-steroidal anti-inflammatory drugs play an essential part in our approach to control pain in the posttraumatic setting over the last decades several studies suggested that NSAIDS interfere with bone healing. Diclofenac injection is a non-steroidal anti-inflammatory drug used for management of mild to moderate pain and management of moderate to severe pain.

Intramuscular injection is an administration of medication parenteral through a skin puncture by a syringe and a needle deep into a large muscle of the body for prophylactic or curative purposes. An intramuscular injection is a technique used to deliver a medication deep into the muscles. This allows the medication to be absorbed into the bloodstream quickly. There are 4 main sites that can be used for IM injections. They are thigh (vastus lateralis muscle), top of upper arm (deltoid muscle), hip (ventrogluteal or gluteus medius muscle), buttocks (dorsogluteal muscle) Thigh (vastus lateralis muscle).

A method to locate this site is to place the palm of a hand centered on the person's shoulder. The fingers should be pointing toward the floor. The thumb and the other fingers are separated to make an upside down V shape. The IM injection should go in the middle of the V shape. Buttocks (dorsogluteal muscle). A method to locate this site is to divide one buttock into 4 quarters. The quarters are formed by dividing the buttock in half from top to bottom and also in half from side to side. The injection should be given in the upper, outer quarter. 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. Hence the study is the effectiveness of Helper Skin Tapping Technique over the skin before and during IM injections in relation to pain.

MATERIALS AND METHODS:

The setting selected for the study was orthopedic wards of Saveetha Medical College and Hospital. 60 samples who come under inclusion criteria were selected by probability convenience sampling technique, data was collected by

using socio demographic variables, and it deals with details such as age, gender, religion, educational status, occupation, habit of practice in muscle exercises, history of allergic reaction due to IM Injection previously, previous exposure to intramuscular injection. The tools were translated to Tamil language. As a part of the assessment tool for Numerical Pain Scale. The socio demographic data was collected and informed consent was obtained from the sample. They were purposefully selected to control and experimental group. The subjects in the control group received INJ. Diclofenac intramuscular with conventional Technique (CT) and subjects in the second group received Inj. Diclofenac intramuscularly with HST. During the initial and later interventions subjects pain perception was assessed using Numerical Pain Scale Score.

TECHNIQUE FOR ADMINISTRATION OF IM INJECTIONS:

Conventional Technique:

1. Place the patient in a comfortable position. Place the client in a side lying position, knees should be flexed.
2. After preparing the skin, uncap the syringe in the dominant hand. Make a large V with the thumb and index finger of the nondominant hand.
3. Insert the needle at a 90 degree angle into the muscle.
4. Inject the medication slowly into the muscle after aspirating to avoid medicine into the vein.
5. Remove the needle and press the area gently.

Helper Skin Tapping Technique:

1. Place the client in a side lying position, with knees flexed.
2. After identifying the injection site, tap the skin several times with the palmar aspect of the fingers of the dominant hand for approximately five seconds to relax the muscle.
3. After preparing the skin with alcohol swap, uncap the syringe in the dominant hand. Make a large V with the thumb and index finger of the hand and tap the skin again. The entire hand is used to tap the muscle three times.
4. On the count of three simultaneously insert the needle like a dart at a 90 degree angle into the muscle.
5. After aspirating to prevent injection into a vessel as per normal routine, inject the medication slowly while continuing to tap the muscle gently to keep it relaxed with the palmar aspect of the fingers of the non-dominant hand.
6. Remove the needle tapping the skin again using V tap of the non-dominant hand.

RESULT

Socio demographic variable of the orthopedic adults:

Frequency and percentage distribution of demographic variables among the orthopedic adults (N=60).

TABLE 1:

Show that Frequency and percentage distribution of demographic variables among the orthopedic adults (N=60).

Out of 60 sample reveals that the majority of age [40%] were in the age group of 30 to 39 years, [30%] were in the age group of 40 to 45 years, [30%] were in the age group of 20 to 29 years. The majority of gender [53.33%] were in the gender group of male, [46.66%] were in the gender group of female, [0%] were in the gender group of transgender. The majority of religion [56.66%] were in the hindu, [30%] were in the christian, [13.33%] were in the muslim. The majority of educational states 16[53.33%] were in the primary, 10 [33.3%] were in the higher secondary, 4 [13.33%] were in the graduate. The majority of occupation 15[50%] were in the moderate worker, 11 [36.66%] were in the heavy worker, 4 [13.33%] were in the sedentary. The majority of muscle exercise [80%] were in never, [20%] were in the often, [0%] were in the everyday. The majority of allergic reaction 21[70%] were in the absent, 5[16.66%] were in the not known, 4 [13.33%] were in present. The majority of previous exposure to IM injection [76.66%] were in the often, [23.33%] were in the once a time, [0%] were in the never.

TABLE 2:

Mean, standard deviation and 't' value on control group & experimental group level of pain associated with intramuscular injection among orthopedics adults. The analysis revealed the control group mean was 6.2 and standard deviation 33.92. During the experimental group mean was 3.9 and standard deviation was 1.128 and the 't' value is 5.917. it will be a significant.

MAJOR STUDY FINDINGS:

Regarding demographic variables of 60 orthopedics adults, majority of them belonged to the age group of 30 – 39 years, females, Hindu, had Primary education, were moderate worker, had no habit of practicing muscle exercise, had no history of allergic reaction due to intramuscular injection, had previous exposure to intramuscular injection. Regarding effectiveness of helper skin tap technique on pain associated with intramuscular injection the mean experimental group score of pain associated with intramuscular injection was less than mean control group score. The obtained 't' value 5.917 was significant at $p < 2.000$.

CONCLUSION:

The main conclusion from the study of the orthopedic adults had moderate and severe pain in control group and mild and moderate pain in experimental group. This shows that the helper skin tap technique was effective on reducing pain associated with intramuscular injection among orthopedic adults.

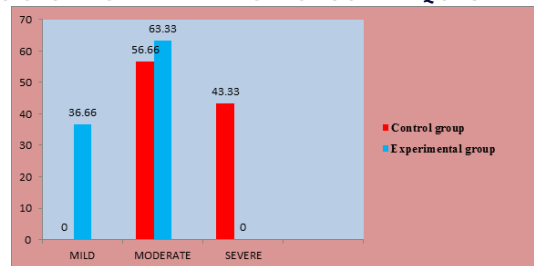
FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG ORTHOPAEDIC ADULT.

S.no	Demographic Variables	Frequency	Percentage
1.	AGE		
	a. 20 – 29 years	9	30
	b. 30 – 39 years	12	40
	c. 40 – 45 years	9	30
2.	GENDER		
	a. Male	14	46.66
	b. Female	16	53.33
	c. Transgender	0	0
3.	RELIGION		
	a. Hindu	17	56.66
	b. Muslim	9	30
	c. Christian	4	13.33

4.	EDUCATIONAL STATUS		
	a. Primary education	16	53.33
	b. Higher secondary	10	33.3
	c. Graduate and above	4	13.33
5.	OCCUPATION		
	a. Heavy worker	11	36.66
	b. Moderate	15	50
	c. Sedentary	4	13.33
6.	HABIT OF PRATICE IN MUSCLE EXERCISES		
	a. Never	24	80
	b. Often	6	20
	c. Every day	0	0
7.	HISTORY OF ALLERGIC REACTION DUE TO INTRAMUSCULAR INJECTION PREVIOUSLY		
	a. Present	4	13.33
	b. Absent	21	70
	c. Not known	5	16.66

Percentage distribution of control group and experimental group level of pain among the orthopedics adult

CONROL AND EXPREMENTAL GROUP FREQUECY:



Wesley, L. Ruby. (2003). Nursing Theories And Models. (2nd ed.) Pennsylvania: Sprin House Publication.

REFERENCES

BOOK REFERENCE

- Basavanthappa, B.T.(2009). MEDICAL SURGICAL NURSING. 1st edition. New Delhi: Jaypee brothers medical publishers.
- Brunner And Suddarth. (2007). Text Book Of Medical Surgical Nursing. (11th ed.) Philadelphia: J. B. Lippincott Company Publications.
- Nancy Burns. (2005). The Practice Of Nursing Research. 5th ed. New Delhi: Jaypee Brothers Medical Publishers.
- Polit And Beck. (2006). Nursing Research Principles And Methods. (7th ed.) Philadelphia: Lippincott Williams And Wilkins Company Publications.
- Polit. F. Denise Hungler (2005). Nursing Research Principles And Methods. (5th ed.) Philadelphia: Lippincott Publications.
- Wilma, J.Phipps.(2006). Medical Surgical Nursing.(7th ed.) North Carolina: B,J Publishers.
- Carlos . P. et. Al. (2017). Helper Skin Tap – Nursing Practice. Journal Of Alternative And Complementary Medicine.6(1).Pg:16-20.
- Baxter. J A.(2017). Helper skin tap technique and intramuscular injection.10(1).Pg:67-70.
- Elsever science.(2010).Rhythmic skin tap technique. The journal of alternative and complimentary medicine: 11(1).Pg: 1-6.
- Farhadi A, esmaizadeh M Effect of local cold on intensity of pain due to penicillin benzathin intramuscular injection. International journal of medicine and medical sciences.
- Horton. M.(2014). Effects of helper skin tap technique on pain during intramuscular injection.10(2).Pg:57-62.
- Kumudavathy.(2017). Prevalence of intramuscular injection.11(1).Pg:26-29.
- Kusumadevi, et.al.(2017) Prevalance of pain associated with intramuscular injection in India. International Journal Of Biological & Medical Research.6(3).Pg:150-153.