A STUDY TO ASSESS THE EFFECTIVENESS OF FOOT MASSAGE ON THE LEVEL OF PAIN AMONG POST OPERATIVE PATIENTS OF DHANUSH HOSPITAL, BANGALORE

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ABSTRACT
Physiological reaction to torment makes unsafe impacts that drag out the body's recuperation after medical procedure. Patients routinely report mellow to direct torment despite the fact that torment prescriptions have been managed. Complimentary techniques dependent on sound research discoveries are expected to enhance post agent relief from discomfort utilizing pharmacological administration. Foot knead can possibly help relief from discomfort. Rubbing the foot invigorates the mechanoreceptors that initiate nerve filaments to discharge endorphins, which keeps torment transmission from achieving cognizance.
The present study aims at assess the effectiveness of foot massage on the level of pain, among post- operative patients with abdominal surgery.

KEY WORDS: Effectiveness; foot massage; postoperative patients; level of pain.

THE OBJECTIVES OF THE STUDY
1. To determine the level of pain of post- operative abdominal surgery patients before implementation of foot massage as measured by a numerical pain scale and observational check list.
2. To find out the effectiveness of foot massage on the level of pain pressure in terms of reduction in pain.

METHOD
Pre-test one gathering pre- test post- test configuration was utilized for the present investigation. Test comprised of 30 post agent patients with stomach medical procedure, who met the consideration criteria. Instruments utilized were Observation agenda and numerical agony scale to survey torment power. Information was dissected utilizing spellbinding and inferential insights.

RESULTS

ORGANIZATION OF THE STUDY FINDINGS
The data collected from the postoperative abdominal surgery patients are organized, analyzed and presented under the following headings:
SECTION I: Sample characteristics.
SECTION II: Assessment of level of pain of postoperative abdominal surgery patientsbefore implementation of foot massage.
SECTION III: Description of pre- and post-foot massage pain level of postoperativeabdominal surgery patients.
SECTIONIV: Significance of difference in the level pain before, immediately after, and10 minutes after foot massage of postoperative abdominal surgery patients.
SECTION V: Association between pre-foot massage pain score and the selectedvariables such as age and type of surgery.
SECTIONI: SAMPLE CHARACTEIRSTICS -This section deals with the analysis of the datacollected from 30 abdominal surgery patients based on their specified inclusion criteria and is explained in frequency and percentage and represented table – .

Table 1: Frequency and Percentage of Sample Characteristics N=30

Variable		Frequency	Percentage
1.	Age in years		
a.	21 – 30	13	43.3
b.	31 – 40	7	23.3
c.	41 – 50	7	23.3
d.	51 – 60	2	6.7
e.	> 60	1	3.3
2.	Education		
a.	Illiterate	2	6.7
b.	Primary education	10	33.3
c.	Secondary education	12	40.0
d.	Graduate	6	20.0
e.	Postgraduate	-	-
f.	Professional	-	-
3.	Occupation		
a.	Unemployed	18	60.0
b.	Employed	5	16.7
c.	Professional	-	-
d.	Self-employed	7	23.3
4.	Surgical procedure done		
a.	Apendectomy	11	36.7
b.	Herniectomy	19	63.3
5.	Previous surgery		
a.	Yes	41	33.3
b.	No	17	56.7
6.	Previous analgesia/anaesthesia		
a.	Yes	20	66.7
b.	No	10	33.3

7.	Pain relief method other than medications			
	a.	Yes	11	36.7
	b.	No	19	63.3
8.	If yes, type of therapy			
	a.	Acupuncture	-	-
	b.	Traditional massage	7	63.6
	c.	Aroma therapy	-	-
	d.	Acupressure	-	-
	e.	Yoga	4	36.4
	f.	Music therapy	-	-

Table: 2 Frequency and percentage distribution of postoperative patients by their Age

Variables Age group in years	Frequency	% Percentage
21-30	**13**	43.3%
31-40	07	23.3%
41-50	07	23.3%
51-60	2	6.7%
>60	1	3.3%

The data present in the table 1 shoes that majority of responds where in the age group of 21-30 years(16 i.e.43.3%) followed by the respondents who were in the age group of 31-40 years (7,i.e23.3%),and the age group of 51-60 years(2,i.e.6.7%) and only 1(3.3%) were in >60 years or age group.

SECTION II

ASSESSMENT OF LEVEL OF PAIN POSTOPERATIVE ABDOMINAL SURGERY PATIENTS BEFORE IMLEMENTATION OF FOOT MASSAGE

Assessment of pain level of 30 post-operative abdominal surgery patients before implementation of foot massage using observational check list and numerical pain scale and were analyzed by descriptive and inferential statistics and presented as table.

Table 3: Mean and SD distribution of postoperative patients according to the Level of pain before foot massage

N=30

	Range	Mean	Mean %	SD
Objective assessment of pain	8 – 13	10.67	71.13	1.322
Using observation check list				
Numerical pain scale	6 – 10	7.47	72.00	1.042

SECTION III

a. DESCRIPTION OF PRE AND POST-FFOT MASSAGE PAIN LEVEL OF POSTOPERATIVE ABDOMINAL SURGERY PATIENTS

Pre and post foot massage pain level of 30 post-operative abdominal surgery patients were assessed by using observation check list and numerical pain scale analyzed by descriptive and inferential statistics.

Table: 4 Range, mean and SD of level of pain intensity of postoperative patients before and after implementation of foot massage

N=30

	Range	Mean	SD
Objective assessment of pain			
Using observation check list			
O_1 (Pre)	8 – 13	10.67	1.322
O_2 (0^{th} minute)	5 – 11	8.00	1.314
$^{0}3$ (10^{th} minute)	3 – 7	4.77	1.165
Numerical pain scale			
O_1 (Pre)	6 – 10	7.47	1.042
O_2 (0^{th} minute)	3 – 7	5.70	0.952
O_3 (10^{th} minute)	3 – 7	4.53	0.937

Data in Table shows that range of mean pretest pain level (8-13 as per objective assessment and 6-10 as per numerical pain scale) were higher than that of mean posttest pain level (3-7 as per objective assessment and 3-7 as

per numerical pain scale) respectively. It is evident for the table that the mean pretest pain level (X_1=10.67±1.322, 7.47±1.042) was higher than the mean posttest pain level ($\bar{X}$ 4.477±1.165, 4.53±0.937

SECTON IV

a. SIGNIFICANCE OF DIFFERENCE IN THE LEVEL OF PAIN BEFORE, IMMEDIATELY AFTER, AND 10 MINUTES AFTER FOOT MASSAGE OF POSTOPERATIVE ABDOMINAL SURGERY PATIENTS

In order to find out the significance of difference in the level of postoperative abdominal surgery patients before, immediately after, and 10 minutes after foot massage, the following null hypothesis was formulated:

H_{01}: The post foot massage pain score will not be significantly lower than the pre foot massage pain score.

Table 5: Paired „t" test showing significant difference between pre- and post- foot massage pain level

N=30

	Mean	SD	„t" value
Objective assessment of pain			
O_1 - O_2	2.667	1.213	12.041*
O_1 - O_3	5.900	1.423	22.710 *
O 2 – O_3	3.233	1.406	12.590 *
Numerical pain scale			
O_1 - O_2	1.767	0.568	17.026 *
O_1 - O_3	2.933	0.691	23.230 *
O_2 – O_3	1.697	0.648	9.860 *

$t_{(29)}$ at 0.05 level = 2.045 *Significant

It is evident from Table that the calculated „t" values are greater than table value ($t_{(29)}$ = 2.045, P<0.05) showing that there was significant difference in the pre and post-foot massage pain score. Hence the null hypothesis rejected and research hypothesis accepted.

SECTION V

ASSOCIATION BETWEEN PRE-FOOT MASSAGE PAIN SCORE AND THE SELECTED VARIABLES SUCH AS AGE AND TYPE OF SURGERY

To test the association between pre foot massage pain score and the selected variables the following hypothesis was formulated.

H_{03}: There will be no significant association between pre foot massage pain level, age and type of surgery.

Table 6: Association between pre-foot massage pain score and selected variables such as age and type of surgery

N=30

Variable	Level of pre-experiment pain		Total	χ^2 value
	Moderate	Severe		
Age (years)				
21 – 30	3	10	13	0.109 NS
≥ 31	2	15	17	
Type of surgery				
Herniaectomy	1	13	14	0.670 NS
Appendectomy	4	12	16	

χ^2= 3.84, P<0.05 NS = Not significant

Table shows that there was no association between pre-foot massage pain score, age (χ^2 = 0.109, P = 0.0742), and type of surgery (χ^2 = 0.670, P = 0.336) at 0.05 level of significance. Therefore null hypothesis was accepted and the research hypothesis rejected.

The findings of the study showed a significant difference in level of pain between the pre and post foot massage sessions immediately and after 10 minutes of FM, (t 29= 12.041, t 29= 22.71 , t29= 12.59 , p<0.05) for the observation checklist, and (t29= 17.02, t29= 23.234 , t29=9.865, p<0.05) for the numerical pain scale.

There was no significant association between pre foot massage pain and the selected variables such as age (χ2= 0.109) and type of surgery (χ2= 0.670 , p>0.05).

INTERPRETATION

The results showed that foot massage is an effective non pharmacological method for reducing post-operative pain.

CONCLUSION

Foot massage is a simple noninvasive cost effective method that can be used effectively for the management of post-operative pain.

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