



EFFECTIVENESS OF FOOT MASSAGE ON REDUCTION OF PHYSIOLOGICAL LOWER LEG OEDEMA AMONG PRIMIGRAVIDA MOTHERS DURING THIRD TRIMESTER

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Physiological lower leg oedema is one of the cutaneous manifestations of pregnancy. The weight gain during pregnancy and gravity slows down the circulation of blood and body fluids particularly in the lower limbs. The swelling or oedema is a very common discomfort of pregnancy. It is estimated that about 75% of women will experience this excessive accumulation of fluid around the legs and ankles during pregnancy.

Foot massage has been found to decrease the level of physiological lower leg oedema. Foot massage means manipulation of superficial and deeper layers of muscle and connective tissues of the limbs by using six techniques includes massaging top and bottom of the feet, ankle rotation, toe massage, toe pull, toe squeeze and foot arch massage over 20 minutes. Foot massaging stimulates lymphatic circulation and decreases swelling. Massaging the feet from toes to calf and exercising gentle pressure with the fingertips may helps to shift water out of the tissue.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of foot massage on reduction of physiological lower leg oedema among primigravida mothers during third trimester in Elayirampannai primary health centre at Virudhunagar district.

OBJECTIVES

1. To assess the pre test level of physiological lower leg oedema among primigravida mothers.
2. To find out the effectiveness of foot massage on reduction of physiological lower leg oedema among primigravida mothers.
3. To associate the post test level of physiological lower leg oedema among primigravida mothers with selected demographic variables.

HYPOTHESES

H₁: Mean post test level of physiological lower leg oedema among primigravida mothers will be significantly lower than the mean pretest level of physiological lower leg oedema.

H₂: There will be a significant association in the post test level of physiological lower leg oedema among primigravida mothers with selected demographic variables.

METHODOLOGY

Research Approach

Quantitative research approach was used to determine the effectiveness of foot massage on reduction of physiological lower leg oedema among primigravida mothers.

Research Design

Research design adopted for this study was pre experimental with one group pre and post test design.

Setting:

The study was conducted in Elayirampennai primary health centre at Virudhunagar district.

Population

The study population comprised of third trimester primigravida mothers with physiological lower leg oedema.

Sample

Primigravida mothers physiological lower leg oedema during third trimester who visited the Elayirampennai primary health centre.

Sample Size

Total sample size was 60 primigravida mothers during third trimester with physiological lower leg oedema.

Sampling Technique

Purposive sampling technique was adopted for this study.

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

1. Third trimester primigravida mothers.
2. Primigravida mothers with physiological lower leg oedema.
3. Primigravida mothers who are willing to participate in the study.

Exclusion Criteria

Mothers who had lower leg oedema with other systemic illnesses such as hypertension, varicosities, anaemia and renal disorders.

DEVELOPMENT AND DESCRIPTION OF TOOL

The tool consisted of two sections:

Section: A

It comprised of demographic data of the samples which consists of seven (7) items such as age, educational status, occupation, type of family, family income, religion and area of living.

Section: B

Erin oedema scale was used to assess the level of physiological lower leg oedema. oedema is evaluated on its ability to pit. The investigators finger is pressed into a dependent area of the mothers skin for five (5) seconds. If pitting oedema is present the finger will sink into the tissue and leave an impression after removing the finger. This pitting is graded on a scale of +1 to +4 as follows

0	+1	+2	+3	+4
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Scoring Key

Score	Nature of oedema	Oedema assessment
0	None	No oedema
+1	Trace	Rapid return to normal.
+2	Mild	Rebounds in a few seconds.
+3	Moderate	10-20 seconds to return to normal.
+4	Severe	>30 seconds to return to normal.

DATA COLLECTION PROCEDURE

The researcher went to the sample mother's home and collected the demographic data from the primigravida mothers by interview method and pre test was done. Foot massage was given over twenty (20) minutes for each day. During the seven (7) days of intervention period the researcher gave adequate orientation and explanation regarding six techniques of foot massage (massaging top and bottom of the foot, ankle rotation, toe massage, toe pull, toe squeeze and foot arch massage) by using pamphlet to the primigravida mothers and their family members. Each step has to be administered for 1-2 times. Post test was done after seven (7) days of intervention.

FINDINGS

Table 1: Frequency and percentage distribution of demographic variables of Primigravida Mothers. (N=60)				
S.NO	DEMOGRAPHIC VARIABLES	COMPONENTS OF VARIABLE	SAMPLES	
			FREQUENCY (f)	PERCENTAGE (%)
1.	Age (years)	a) 15-22	21	35.0
		b) 23-30	29	48.3
		c) 31-38	10	16.7
2.	Educational status	a) Illiterate	7	11.7
		b) Primary school	22	36.7
		c) Secondary school	24	40.0
		d) Higher secondary school	5	8.3
		e) Graduate	2	3.3
		f) Post graduate	0	0
3.	occupation	a) Sedentary worker	23	38.3
		b) Moderate worker	26	43.3
		c) Heavy worker	11	18.4
4.	Type of family	a) Nuclear	41	68.3
		b) Joint	18	30.0
		c) Extended	1	1.7
5.	Family income	a) Less than Rs.3000	4	6.7
		b) Rs.3001-5000	27	45.0
		c) Above Rs.5001	29	48.3
6.	Religion	a) Hindu	36	60.0
		b) Christian	12	20.0
		c) Muslim	12	20.0
		d) Others	0	0
7.	Area of living	a) Urban	0	0
		b) Semi Urban	13	21.7
		c) Rural	47	78.3

Table 1 shows that the majority of primigravida mothers 29 (48.3%) were between the age group of 23-30 years, 24 (40%) were completed secondary education, 26 (43.3%) were moderate worker, 41 (68.3%) were living in nuclear family, 29 (48.3%) were getting the income of Rs.3001-5000 per month, 36 (60%) were Hindu and 47 (78.3%) were living in rural area.

Table 2: Comparison of pre and post test level of physiological lower leg oedema among primigravida mothers					
S.No	Group	Level of oedema score			T- value
		Mean	Standard Deviation	Mean difference	
1.	PRE TEST	2.38	0.87	1.8	7.51 S
2.	POST TEST	0.58	0.69		

S - Significant

Table 2 reveals that the mean value of post test level of physiological lower leg oedema after receiving foot massage was 2.38 and it was lower than the pretest mean value 0.58. The calculated t^2 test value was 7.51 showed that there was a significant difference in the effectiveness of foot massage at $p < 0.05$ level.

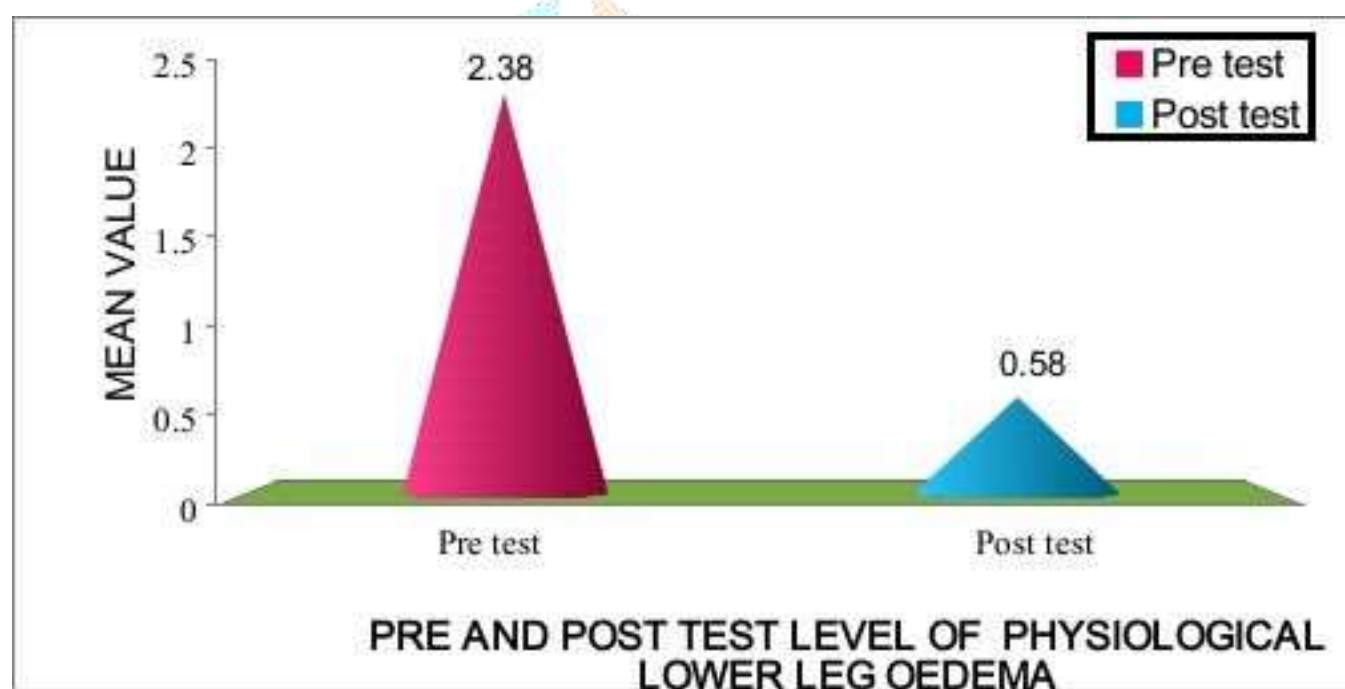


Figure 1: Mean value of pre and post test level of physiological lower leg oedema

Chi- Square was done among the selected variables. There was no significant association between the post test level of physiological lower leg oedema among primigravida mothers with selected demographic variables.

RECOMMENDATIONS

1. A comparative study can be conducted to assess the effectiveness of continuous rotary seat pan movement and foot massage on reduction of physiological lower leg oedema among antenatal mothers.
2. A comparative study can be conducted to assess the effectiveness of water aerobics and foot massage on reduction of physiological lower leg oedema among antenatal mothers.

CONCLUSION

The present study assessed the effectiveness of foot massage on reducing the level of physiological lower leg oedema. The result showed that there was a significant association between the foot massage on reducing the level of physiological lower leg oedema among primigravida mothers. On the basis of this study the investigator were concluded that foot massage reduces the level of physiological lower leg oedema and the reflexology technique is the best method to reduce the level of physiological lower leg oedema. It can be done by family members, no need to spend money and less skilled procedure.

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