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## “A STUDY TO ASSESS THE EFFECTIVENESS OF LEG MASSAGE ON PHYSIOLOGICAL LOWER LEG OEDEMA AMONG ANTENATAL MOTHERS ADMITTED IN ANTENATAL WARD OF SELECTED HOSPITALS.”

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**Abstract:** Pregnancy bring a new meaning to the concept of beauty. It is a period of immense joy coupled with excitement. The physiological transition from being pregnant women to becoming a mother means an enormous change for each woman both physically and psychologically. It is a time when each and every system in the body is affected and the experience, though unfortunately not joyous for all. The overall prevalence rate of physiological lower leg oedema during pregnancy is 8.5%. Leg massage is an example of an intervention that can be used for specific conditions such as leg and foot oedema as it moves extravascular fluid without disturbing intravascular fluid. Materials and methods used: The quantitative research approach was used; the study was conducted at selected hospitals. The research design adopted for study was experimental two group pre-test post-test design to assess the effect of leg massage on physiological lower leg oedema among antenatal mothers admitted in antenatal ward of selected hospitals. Purposive sampling technique was used to select 60 antenatal mothers among that 30 samples were for control group, 30 samples for experimental group pre test given to both group and intervention was given to experimental group, for 4 days on 5th day post test was taken. Erin Oedema scale was used to assess the level of physiological lower leg oedema. Data was analysis by using descriptive and inferential statistical. Result: The mean post test score of control and experimental group shows that reduction in physiological lower leg oedema score, this is statistically significant as evidence from  $p = <0.0001$  at 0.005 level. Conclusion: The findings of this study leg massage was effective in reducing physiological lower leg oedema among antenatal mothers.

**Key Words-** Foot Massage, oedema in pregnancy, antenatal mother.

## I. INTRODUCTION

Pregnancy is presumed to be a major contributing factor in the increased incidence of varicose vein in women, which in turn leads to venous insufficiency and leg oedema. Oedema occurs when body fluids increase to nurture both mother and her baby and accumulation in the tissues as a result of increased blood flow and pressure of the growing uterus on the pelvic vein and the vena cava. In recent years, there has been an increased acceptance of complementary therapies within the healthcare system. Massage has been a vital part of prenatal and postnatal care across different cultures in countries. Leg massage is an effective and inexpensive measure to reduce the level of physiological lower leg oedema. Leg massage should become a routine activity among antenatal mothers with physiological lower leg oedema. There are many benefits of massage therapy, such as relaxing and relieving muscle spasms and improve circulation. It also help a healthier lifestyle free from discomfort and pain associated with swelling.

## II. SUBJECTS AND METHODS

The quantitative research approach was used; the study was conducted at selected hospitals. The research design adopted for study was experimental two group pre test post test design to assess the effect of leg massage on physiological lower leg oedema among antenatal mothers admitted in antenatal ward of selected hospitals. Purposive sampling technique was used to select 60 antenatal mothers among that 30 samples were for control group, 30 samples for experimental group pre test given to both group and intervention was given to experimental group, for 4 days on 5th day post test was taken. Erin Oedema scale was used to assess the level of physiological lower leg oedema. Data was analysis by using descriptive and inferential statistical.

## III. RESULTS AND DISCUSSION

The research study finding have been discussed with relevance to the objectives. About the effectiveness of leg massage in experimental group the pre-test mean was 2.86, standard deviation 0.68, median 3 and mean percentage was 21.90%. In post-test the mean was 0.70, standard deviation 0.70, median was 1 and mean percentage was 6.30%. The mean difference between pre-test and post test scores in experimental group was 2.16.

Whereas In control group the pre-test mean score was 2.43, standard deviation 0.62, median 2 and mean percentage was 25.80%. The post-test the mean score was 2.36, standard deviation 0.66, median was 2 and mean percentage was 21.30%. The mean difference between pre and post test scores in control group was 0.07.

The mean post test score of control and experimental group shows that reduction in physiological lower leg oedema score, this is statistically significant as evidence from  $p < 0.0001$  at 0.005 level. The study concluded that leg massage was effective in reducing physiological lower leg oedema among antenatal mothers.

**SECTION A: Frequency and percentage distribution of antenatal mothers with regard to demographic variables.**

**Table 1. Frequency and percentage distribution of antenatal mothers with according to demographic variables.**

(n= 60)

SR. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP		EXPERIMENTAL GROUP	
		Freq.	%	Freq.	%
<b>1</b>	<b>Age in year</b>				
a	18 to 23	6	20%	6	20%
b	24 to 29	18	60%	18	60%
c	30 to 35	5	16.7%	3	10%
d	Above 35	1	3.3%	3	10%
<b>2.</b>	<b>Gravida</b>				
a	Primigravida	18	60%	18	60%
b	Multigravida	12	40%	12	40%
<b>3.</b>	<b>Trimester</b>				
a	First	0	0%	0	0%
b	Second	16	53.3%	15	50%
c	Third	14	46.7%	15	50%
<b>4.</b>	<b>Educational Qualification</b>				
a	No formal education	0	0%	0	0%
b	Primary education	2	6.7%	9	30%
c	Secondary education	9	30%	10	33.3%
d	Higher secondary education	18	60%	7	23.4%
e	Graduate	1	3.3%	4	13.3%
f	Post graduate	0	0%	0	0%
<b>5.</b>	<b>Occupation</b>				
a	House wife	24	80%	21	70%
b	Private job	6	20%	9	30%
c	Government job	0	0%	0	0%
d	Daily wages	0	0%	0	0%
<b>6.</b>	<b>Type of family</b>				
a	Nuclear family	15	50%	15	50%
b	Join family	15	50%	15	50%
c	Extended	0	0%	0	0%

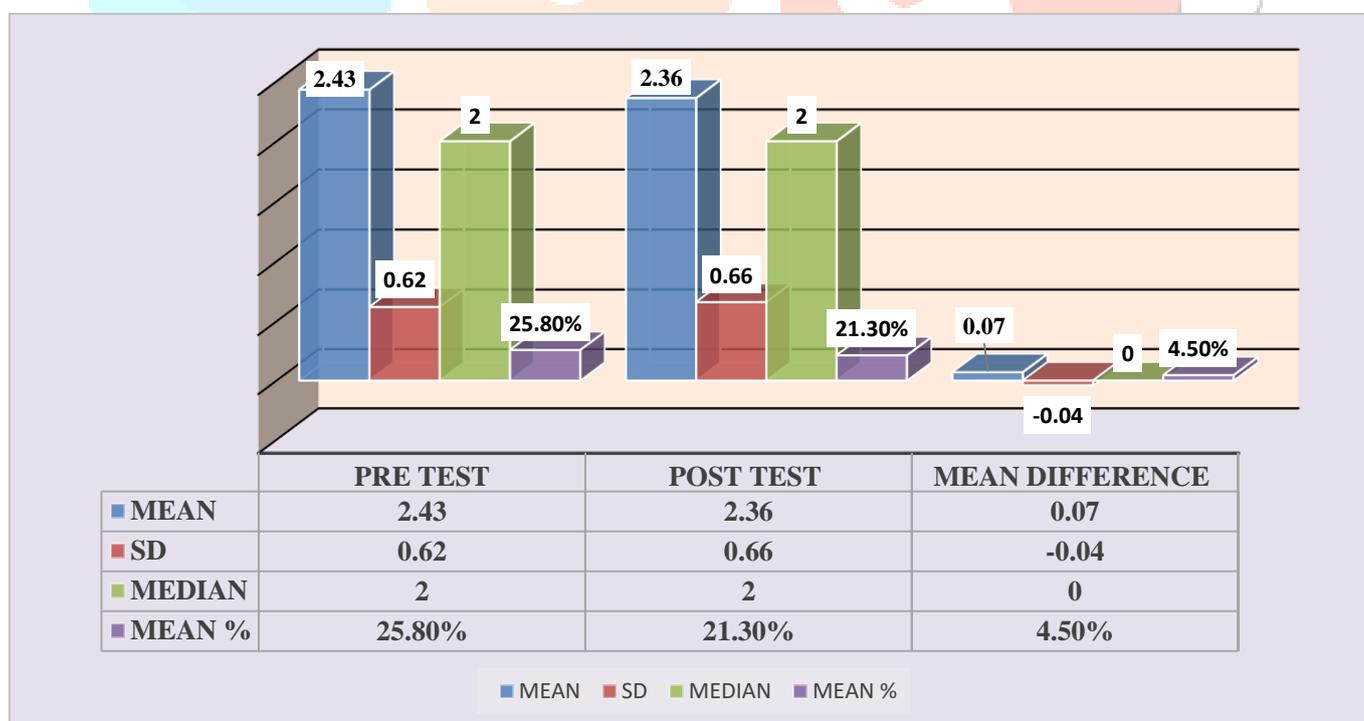
**SECTION B: Assessment of pre-test and post test scores of physiological lower leg oedema among antenatal mothers admitted in antenatal ward of selected hospital in control and experimental group.**

**Table 2: Assessment of pre-test and post-test score of physiological lower leg oedema in control group.**

(n=30)

Physiological lower leg oedema	Mean	SD	Median	Mean %
Pre test	2.43	0.62	2	25.80%
Post test	2.36	0.66	2	21.30%
Mean difference between pre and post test	0.07	-0.04	0	4.5%

Table no 2 depicts that mean, standard deviation, median and mean percentage of pre-test and post-test level of physiological lower leg oedema among antenatal mothers in control group. In control group the pre-test mean score was 2.43, standard deviation 0.62, median 2 and mean percentage was 25.80%. In post-test the mean score was 2.36, standard deviation 0.66, median was 2 and mean percentage was 21.30%. The mean difference between pre and post test scores in control group was 0.07.



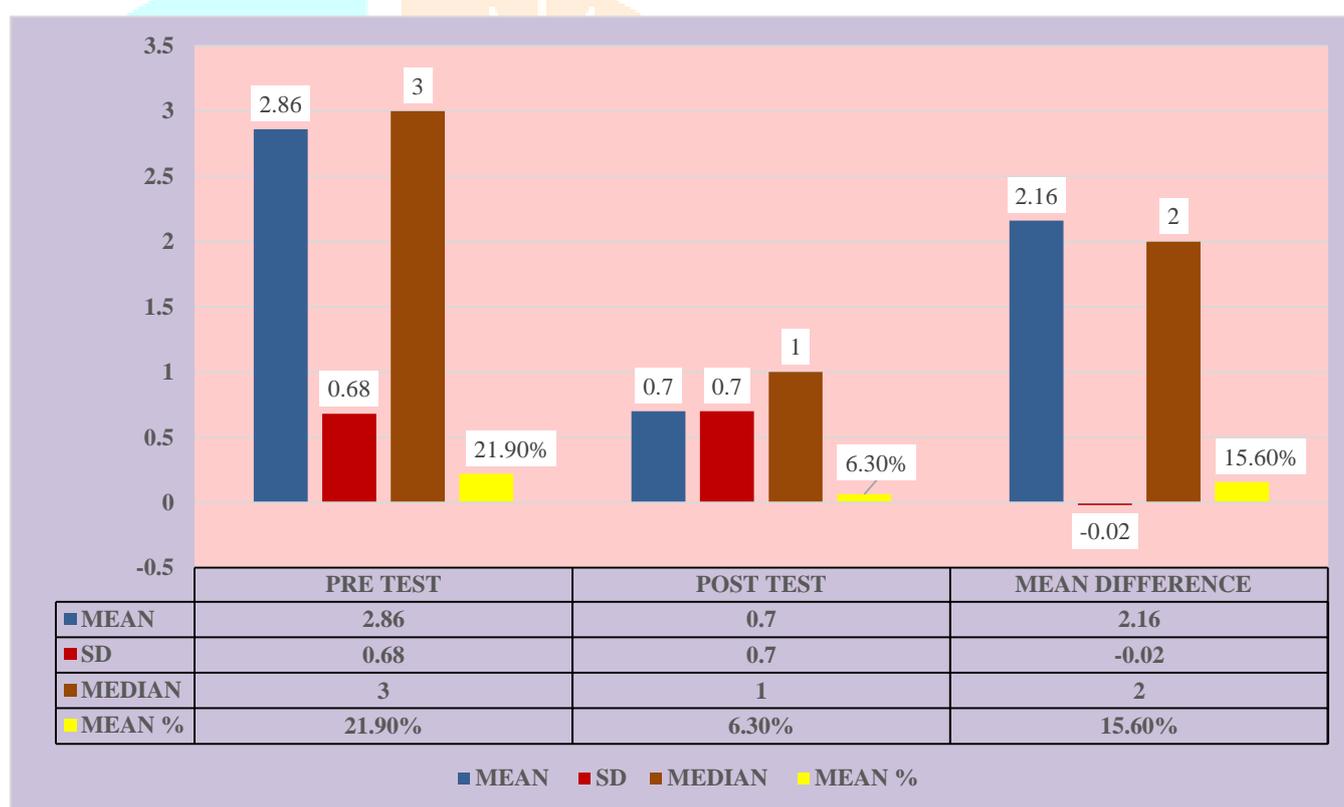
**Graph II: Bar graph showing pre-test and post-test scores of physiological lower leg oedema in control group.**

**Table 3: Assessment of pre-test and post-test scores of physiological lower leg oedema in experimental group.**

(n=30)

Physiological lower leg oedema	Mean	SD	Median	Mean %
Pre test	2.86	0.68	3	21.90%
Post test	0.70	0.70	1	6.30%
Mean difference between pre and post test	2.16	-0.02	2	15.60%

Table no 3 depicts that mean, standard deviation, median and mean percentage of pre-test and post-test level of physiological lower leg oedema among antenatal mothers in experimental group. In experimental group the pre-test mean was 2.86, standard deviation 0.68, median 3 and mean percentage was 21.90%. In post-test the mean was 0.70, standard deviation 0.70, median was 1 and mean percentage was 6.30%. The mean difference between pre-test and post test scores in experimental group was 2.16.

**Graph II: Bar graph showing pre-test and post-test scores of physiological lower leg oedema in control group.**

**SECTION C: Assessment of effectiveness of leg massage on physiological lower leg oedema among antenatal mothers in control and experimental group.**

**Table 4: Comparison of Mean and Standard deviation of pre-test and post test score of physiological lower leg oedema in control and experimental group.**

Physiological lower leg oedema scores	Pre test			Post test		
	Control group	Exp. group	Unpaired 't' test	Control group	Exp. group	Unpaired 't' test
Mean	2.43	2.86	t = 2.565	2.36	0.70	t = 9.414
SD	0.62	0.68	p= 0.0129	0.66	0.70	p= <0.0001
Mean difference	-0.43		df=58 significant	1.66		df=58 Extremely significant

Table no 4 shows that unpaired 't' test showing the pre test and post test scores of physiological lower leg oedema among antenatal mothers in control and experimental group. In control group the pre test mean score was 2.43, standard deviation 0.62. In post test the mean score was 2.36, standard deviation 0.66. The mean difference between pre and post test was - 0.43. In experimental group the pre test mean was 2.86, standard deviation 0.68. In post test the mean score was 0.70, standard deviation 0.70. The mean difference between pre and post test scores of experimental group was 1.66. In pre test Unpaired 't' test value of control group and experiment group was  $t = 2.265, p = 0.0129$  and  $df = 58$  which is significant. Whereas in post test the Unpaired 't' test of control and experimental group was  $t = 9.414, p = <0.0001$  and  $df = 58$  which is extremely significant. Thus, it stated that the leg massage on physiological lower leg oedema among antenatal mothers is effective. Hence, H1 hypothesis accepted.

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