

# **RESEARCH ARTICLE**

# EFFECT OF FOOT EXERCISE AND WARM WATER FOOT SOAK ON FOOT EDEMA AMONG ANTENATAL WOMEN- PILOT STUDY.

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#### Manuscript Info

*Manuscript History* Received: 03 June 2019 Final Accepted: 05 July 2019 Published: August 2019

Key words:-

effect, foot exercise, foot soak, foot edema, antenatal mother.

#### Abstract

..... Introduction and background: Pregnancy is one of the most important periods in women life which effects on hormonal, psychological, vascular, metabolic and immunologic changes. Foot edema occurs because of the gravid uterus recurrently applies pressures on the inferior vena cava during recumbence, which impairs venous. Lower extremities edema is a common complain during pregnancy and associated with daily activity limitations and discomforts 1. The researchers' aims to evaluate the effect of foot exercise and warm water foot soak on foot edema among antenatal women during pregnancy. Methodology: The research approach used was quantitative approach. Quasi experimental; a comparative two group Pre-test post-test design was used. The study was conducted in central Gujarat region. Ten antenatal women were conveniently selected five members in each group. The tool of data collection included a Bio-demographic Performa and Observational checklist of figure-of-eight technique to measure the foot edema in antenatal. Pre-treatment assessment was done for both experimental group. Experimental group was provided with the treatment of warm water foot soak for 20 minutes and to another group foot exercise for 20 minutes 2 times in a day for 3 consecutive days with assessment foot edema with help of figure of eight after each day intervention. Results: The data was analysed by using descriptive and inferential statistics. The study result showed that there is reduction in both the interventions are effective and P value for warm water foot soak is 0.0010 and for foot exercise is 0.0030.

**Conclusion:** Hence, the study concluded that there exists a huge impact of warm water foot soak and foot exercise on relieving foot edema. There is significant reduction in foot edema among antenatal women after the warm water foot soak and foot exercise. Hence, foot exercise and warm water soak can be used as a home-based measure to relieve foot edema in antenatal mother.

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#### Introduction:-

Human pregnancy is related with changes in most of the physiological systems of the body as a result of the increased functional demands to cope with the additional requirements of pregnancy, delivery and lactation. In the absence of associated functional impairments, these changes are regarded as normal1 Lower extremities edema is commonly occurring discomfort during pregnancy which associated with daily activity limitations. Edema may be on unilateral or may bilateral legs. It can be very normal for leg to swell during pregnancy as a release hormone causes the body to retain fluid and salt. It is a common discomfort during late pregnancy. It typically involves the lower limbs but occasionally appears as swelling or puffiness in the face or hands. Pregnancy should be a period of joy for every expectant woman and it should be experienced with no health-related complications.2

Antenatal care aims to monitor pregnant women's general health and foetal development. Better health care is to be offered to all expectant mothers and negative impact on foot health can be removed3. Medications are usually contraindicated during pregnancy as they may interfere with the baby's development. Complementary and alternative therapies such as massage therapy, essential oils, exercise, water soak, and herbs can offer natural relief. Research is limited on the use of alternative therapies for pregnant women. Alternative therapies can assist pregnant women with the changes they experience and could potentially alleviate the emotional and physical strains which might occur it improves posture and circulation and reduces swelling, leg cramps, backache and varicose veins.

There are ample amount of benefits of warm water foot soak and foot exercise which is cost effective and nonpharmacological as well as there is no complication to antenatal women and for her fetus so, it necessary to find best alternate for the foot edema in antenatal women.

In this study, the researchers sought to evaluate the impact of pregnancy on foot health. Expectant mothers need to care for their feet to be able to prevent foot pathologies, pain and discomfort. Women's satisfaction with the type of care received during pregnancy has been an area of interest to researchers.

#### Material and Methods:-

The research approach used was quantitative approach. Quasi experimental study was done and a comparative two group Pre-test post-test design was used. The study was conducted in Ridham Hospital, Anand and 10 antenatal women 5 in each group were taken. There were Convenient non- probability sampling technique used and for selecting samples random allocation done in each intervention group. The tool used for gathering data included Bio-demographic and maternal variable Performa and Figure of eight technique to measure the foot edema.

Pre-treatment assessment was done for both experimental groups. One Experimental group was provided with the treatment of warm water foot soak and another group was provided foot exercise 2 times in a day for 3 consecutive days with assessment foot edema after each day.

#### **Result:-**

The data was analysed with the use of descriptive and inferential statistics. The study result showed that there was reduction in mean score of edema in both groups. In warm water foot soak group on first day mean score in right foot is 48.10 which reduced and come to 45.30 on third day after intervention same as in left foot the mean score is 48.20 which reduced after intervention on third day is 46.30. In foot exercise group the mean score before intervention in right foot is 49.70 which reduced after intervention to 47.90 and in the left leg on first day mean score is 49.60 and reduced after intervention on third day and score is 48.10. This all data shows that warm water foot soak and foot exercise both are effective to reduce foot edema.

Paired Samples Statistics					
Group		Mean	Std. Deviation	t value	p value
WARM WATER FOOT SOAK	Pre Day 1 Right Foot	48.10	5.21	2.8200	0.0480
	Post Day 3 Right Foot	45.80	4.59		
	Pre Day 1 Left Foot	48.20	4.15	10.1560	0.0010
	Post Day3 Left Foot	46.30	4.49		
FOOT EXERCISE	Pre Day 1 Right Foot	49.70	4.80	4.8110	0.0090
	Post Day 3 Right Foot	47.90	4.36		
	Pre Day 1 Left Foot	49.60	4.79	6.7080	0.0030
	Post Day3 Left Foot	48.10	4.44		

 Table 1:-Comparison of mean score value between two groups on day 1 before intervention and day 3 after intervention

The above table show that warm water foot soak and foot exercise therapies are effective to reduce normal physiological edema during the pregnancy.



Graph 1:-Comparison of mean score of two groups

Graph 1 showed the comparison of warm water foot soak and foot exercise on physiological foot edema before intervention on first day to after intervention on 3 days which showed that there is significant reduction in foot edema among both group.

# **Conclusion:-**

The present study conducted only on 10 antenatal mothers who are having physiological foot edema (5 antenatal women in each experimental group). Alternative therapies can assist pregnant women with the changes their experience and could potentially alleviate the emotional and physical strains which might occur. This small scale study is new hope about of the home-based measures to relieve foot edema and its discomforts .So, similar study can be perform on larger scale to make it generalized and in determining the impact of warm water foot soak and foot exercise on relieving foot edema . The antenatal women and also the people should be aware about the use of such measure which helps to relieve the foot edema.

## **References:-**

- 1. The Internet Journal of Gynecology and Obstetrics ;Leg Oedema During Pregnancy Among Nigerian Igbo Women: Perceptions, Prevalence, Prognosis And Treatment-Seeking
- 2. Behaviours, Volume 14,available on: https://www.researchgate.net/publication/281040616\_Leg\_Oedema\_During\_Pregnancy\_Am ong\_Nigerian\_Igbo\_Women\_Perceptions\_Prevalence\_Prognosis\_And\_Treatment-Seeking\_Behaviours
- Dr. Nahed Fikry Hassan Khedr, N.F, Dr. Reda Hemida ; IOSR Journal of Nursing and Health Science (IOSR-JNHS) e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 5, Issue 6 Ver. I
- 4. (Nov. Dec. 2016), PP 01-09 available on: file:///C:/Users/HP%20WORLD/Desktop/rol%20publish/A0506010109%20(1).pdf
- Dorothy Cassar, Cynthia Formosa Podiatry Department Malta Journal of Health Sciences,
   B'Kara Health Centre, Malta, available on:
- file:///C:/Users/HP%20WORLD/Desktop/rol%20publish/03Cassar\_and\_Formosa%20(1).pdf.