

EFFECTS OF ARM MASSAGE TO RELIEVE PAIN AND PREVENT LYMPHEDEMA AMONG PATIENTS WITH MASTECTOMY

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ABSTRACT

Background and objectives: According to WHO, globally cancer is becoming a major health problem. Cancer is a disease of the cell. It is estimated that there are 7.6 million cancer cases, of which 52% occur in developing countries. Among cancers, breast cancer is the most common type of cancer. Breast cancer refers to a group of malignant disease that commonly occurs in the female breast and infrequently in male's breast. One in every eight women is expected to develop breast cancer.

Statement of the problem: A study to assess the effectiveness of arm massage to relieve pain and prevent lymphedema among patients with Mastectomy at a selected Hospital at Coimbatore.

Objectives: Quasi experimental research design was adopted with the pre-test and post-test research design for this study. Purposive sampling technique was used to select the sample and a structured questionnaire was used to collect data from 60 samples with type-II DM at Otteri, Chennai. Samples were randomly divided in two groups - Experimental group was supplemented with 10gms/day of Senna Auriculata powder and Control group was given no intervention. The pre-test glucose analysis was conducted by using a glucometer. The post-test was conducted after 4 weeks of intervention.

Methodology: One group pre-test and post-test experimental design was adopted. 40 samples were selected using convenient sampling technique. A numerical pain intensity scale and interview schedule was used to assess the pain and Lymphedema.

Results: Descriptive and inferential statistics were used to analyse the data. Results show that the pre-test mean values of pain and lymphedema were 9.5 and 6.83 respectively and the post-test Mean value of pain and lymphedema was 2.3 and 2.4 respectively. The obtained 't' value in pain scale was 5.312 at ($P < 0.05$), lymphedema was 5.072 ($P < 0.05$) level. **Conclusion:** The study revealed that there is reduction in pain and absence of lymphedema after administering intervention strategy. However, the study can be conducted by using larger populations to generalise the findings.

Keywords: Arm Massage, pain, Lymphedema, Mastectomy patients.

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INTRODUCTION

Cancer is a disease of the cell. Many people believe mistakenly that cancer is a new disease attributed in some way to the pressures and poisons of modern living. In reality cancer has been found in the mummies of ancient Egypt and in fossilized remains of a Dinosaur more than 125 million year old.

According to WHO (2006), globally cancer is becoming a major health problem. It is estimated that there are 7.6 million cancer cases, of which 52% occur in developing countries. Among cancers, breast cancer is the most common type of cancer. Breast cancer refers to a group of malignant disease that commonly occurs in the female breast and infrequently in male's breast. One in every eight women is expected to develop breast cancer.

The risk for developing breast cancer by the age of 35 years is 1 in 622 and by the age of 60 years, the risk is 1 in 23. Approximately 80% of breast cancers are diagnosed after the age of 60 years.

NEED FOR THE STUDY

National breast cancer coalition described that breast cancer is the most diagnosed cancer in women. With the expanded use of technology and diagnostic tests such as mammogram, ultrasound magnetic resonance imaging of the breast and genetic testing, it helps in the early detection of the disease.

Oncology Nursing Association described that breast cancer is a pertinent health issue for women around the world. The percentage of cancer is more located in the United States that is about 32%. Mastectomy continues to be one of the main treatments in the early stages of breast cancer, with approximately 40% of women diagnosed undergoing mastectomy. Most are eligible for breast reconstruction.

Nursing profession has moved from the cure model to care model. During the investigator's clinical experience in the cancer hospital it was found that many patients develop lymphedema and experience pain after having undergone treatment for breast cancer. For these patients who suffer lot, an effective massage therapy may alleviate their sufferings. This inspired the researcher to do a study to assess the effectiveness of arm massage to reduce pain and lymphedema among patients with mastectomy.

Benefits of Arm Massage: Massage has been shown to contribute to a reduction in pain in various situations. Massage causes traction to occur at tissue interfaces; horizontal plexi lie at interfaces in the tissues and gentle pulling on these vessels may stimulate the accompanying sympathetic nerve which supplies the mechanoreceptors. These receptors are destroyed by the manipulation and therefore a dual effect in which mechanoreceptors' sensitivity might be covered, results in reducing pain.

PROBLEM STATEMENT

'A study to assess the effectiveness of arm massage to relieve pain and prevent lymphedema among patients with Mastectomy at a selected Hospital at Coimbatore'

OBJECTIVES

- To assess the level of pain and signs of lymphedema in patients with mastectomy before administering arm massage.
- To perform arm massage on patients with mastectomy.
- To re-assess the level of pain and signs of lymphedema in patients with mastectomy after administering arm massage.
- To associate the selected demographic variables with post-test mean scores of numerical pain intensity and lymphedema.

HYPOTHESIS

H₁: There is a significant relation of arm massage with reduction of pain and lymphedema in patients with mastectomy.

MATERIALS AND METHODS

Quasi-experimental approach, a subtype of quantitative approach was used for the present study. One group pre-test and post-test experimental design was adopted. 40 samples were selected using convenient sampling technique. The study was conducted in surgical wards of a selected Hospital at Coimbatore in Tamil Nadu. The selected samples were assessed for the severity of the pain and signs of lymphedema using numerical pain Intensity scale and interview schedule. Then they were given arm massage on the affected limb at a frequency of 3 per day for 20 minutes. It was done for 5 consecutive days. On the 5th day the researcher reassessed the pain using the numerical pain intensity scale.

RESULTS

Descriptive and inferential statistics were used to analyse the data. Results show that the mean score of pre-test pain scale was 9.5 and in post-test the score was 2.3. The obtained 't' value in pain scale was 5.312. The pre-test mean score of lymphedema was 6.83 and the post-test mean score was 2.4. The obtained 't' value of lymphedema was 5.072. It implies that there was significant effect of arm massage in relieving pain and preventing lymphedema.

Description of statistical value of pre-test and post-test Mean score regarding Numerical Pain Intensity Scale of Patients with Mastectomy

Table – 1: Comparison of pre-test and post-test Mean scores regarding numerical pain intensity scale of patients with Mastectomy
(n = 40)

Serial No.	Mastectomy	Mean	Standard Deviation	't' Value
1.	Pre-test	9.5	0.508	5.312*
2.	Post-test	2.3	0.950	

*Significant at 0.05 level

Table - 1 shows that the Mean score of numerical pain intensity scale in the pre-test was 9.5 and in post-test the score was 2.3. The calculated 't' value was 5.312 at 29 (df) which was significant at 0.05 level. It showed that arm massage has significant effect on reducing pain among patients with Mastectomy.

Description of statistical value of pre-test and post-test Mean score regarding Lymphedema of Patients with Mastectomy

Table – 2: Comparison of pre-test and post-test Mean scores regarding lymphedema of patients with Mastectomy
(n = 40)

Serial No.	Mastectomy	Mean	Standard Deviation	't' Value
1.	Pre-test	6.83	1.174	5.072*
2.	Post-test	2.40	1.016	

Significant at 0.05 level

Table - 2 shows the Mean score of lymphedema in the pre-test was 6.83 and in post-test the mean score was 2.4. The calculated 't' value was 5.072 at 29 (df) which was significant at 0.05 level. It highlights that arm massage has significant effect on preventing lymphedema in patients with Mastectomy.

CONCLUSION

The mean post-test numerical score in pain intensity rating scale and lymphedema score was lower than the mean pre-test scores. The findings showed that the arm massage was effective in relieving pain and prevent lymphedema.

The χ^2 test was used to find out the association between the selected demographic variables and post-test score of numerical pain intensity and lymphedema. The result reveals that the demographic Variables like age, occupation, residence and income had significant association with the findings.

The study revealed that there is reduction in pain and absence of lymphedema after administering intervention strategy. However, the study can be conducted by using larger populations to generalise the findings.

RECOMMENDATIONS

- A similar study could be replicated using a larger sample
- A similar study can be conducted with randomisation
- A similar study can be conducted to evaluate the effectiveness of arm positions in reducing lymphedema in mastectomy patients
- A similar study can be conducted with experimental and control groups.
- A comparative study between patients and the family members can be done.

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