

Advancing Functional Recovery And Reducing Distress in Patients Undergoing Breast Cancer Surgery

Sherry Hite, MOT, OTR/L; Leah Willover, OTD, OTR/L; Lynn Kim, OTD, OTR/L

INTRODUCTION

- Adults undergoing breast cancer surgery are at significant risk for decline in functional performance and increased psychological distress.
- Occupational Therapy (OT) interventions have the potential to enhance functional recovery, reduce distress, and improve overall well-being.
- This study assessed the outcomes of a structured pre- to post-operative OT program for individuals undergoing breast surgery.

OT PRE-OPERATIVE EVALUATION

- Baseline assessment: Function, ROM, Strength, Anxiety/Distress, Cognition, Work/School, Roles
- What to expect after surgery and how to manage symptoms
- Post op precautions and maintaining independence
- Home Exercise Program
- Lymphedema prevention and Bioimpedance spectroscopy baseline

DEMOGRAPHICS (N=206)

| Race | n (%) |
|--|--|
| White | 126 (61%) |
| Black or African Decent | 20 (10%) |
| Asian | 37 (18%) |
| Other | 9 (4%) |
| Decline To Answer | 14 (7%) |
| Ethnicity | n (%) |
| Hispanic or Latino | 52 (25%) |
| Non-Hispanic or Latino | 143 (70%) |
| Decline To Answer | 11 (6%) |
| Insurance | n (%) |
| Commercial Insurance | 85 (41%) |
| Medical/ Medicaid | 60 (29%) |
| Medicare / Medicare + Commercial Insurance | 61 (30%) |
| Surgery Type | n (%) |
| | |
| Mastectomy + Axillary Lymphadenectomy | 24 (12%) |
| Mastectomy + Axillary Lymphadenectomy Mastectomy + Sentinel Node Biopsy | 24 (12%) 62 (31%) |
| | |
| Mastectomy + Sentinel Node Biopsy | 62 (31%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy | 62 (31%) 11 (5%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy Lumpectomy + Sentinel Node Biopsy | 62 (31%) 11 (5%) 74 (37%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy Lumpectomy + Sentinel Node Biopsy Mastectomy or Lumpectomy, no lymph node biopsy | 62 (31%) 11 (5%) 74 (37%) 30 (15%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy Lumpectomy + Sentinel Node Biopsy Mastectomy or Lumpectomy, no lymph node biopsy Planned Reconstruction | 62 (31%) 11 (5%) 74 (37%) 30 (15%) n (%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy Lumpectomy + Sentinel Node Biopsy Mastectomy or Lumpectomy, no lymph node biopsy Planned Reconstruction Yes | 62 (31%) 11 (5%) 74 (37%) 30 (15%) n (%) 69 (34%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy Lumpectomy + Sentinel Node Biopsy Mastectomy or Lumpectomy, no lymph node biopsy Planned Reconstruction Yes No | 62 (31%) 11 (5%) 74 (37%) 30 (15%) n (%) 69 (34%) 116 (56%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy Lumpectomy + Sentinel Node Biopsy Mastectomy or Lumpectomy, no lymph node biopsy Planned Reconstruction Yes No Pending | 62 (31%) 11 (5%) 74 (37%) 30 (15%) n (%) 69 (34%) 116 (56%) 21 (10%) |
| Mastectomy + Sentinel Node Biopsy Lumpectomy + Axillary Lymphadenectomy Lumpectomy + Sentinel Node Biopsy Mastectomy or Lumpectomy, no lymph node biopsy Planned Reconstruction Yes No Pending Neoadjuvant Chemotherapy | 62 (31%) 11 (5%) 74 (37%) 30 (15%) n (%) 69 (34%) 116 (56%) 21 (10%) n (%) |

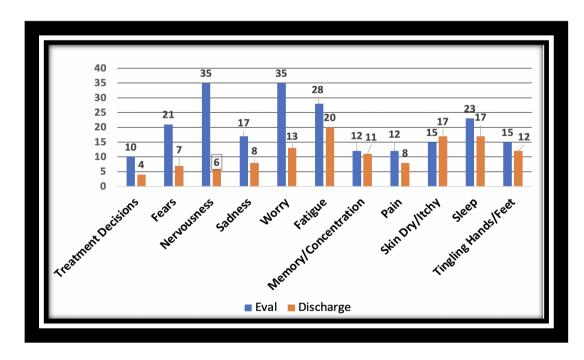
METHODS

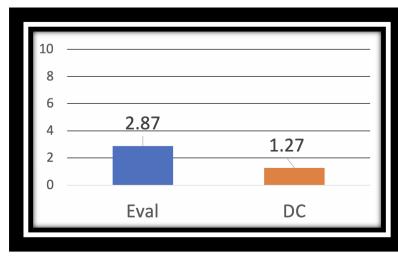
| Time Point 1 Pre-Operative Evaluation | Time Point 2 Post-Operative Appointment #1 | Time Point 3 Discharge From OT Services |
|---------------------------------------|--|--|
| •AMPAC-ADLs | NCCN Distress Thermometer | •AMPAC-ADLs |
| •LAWTON- IADLS | | •LAWTON- IADLS |
| •Quick DASH- Upper | | •Quick DASH- Upper |
| Extremity Functioning | | Extremity Functioning |
| •National Cancer | | •National Cancer |
| Comprehensive Network | | Comprehensive Network |
| (NCCN) Distress | | (NCCN) Distress |
| Thermometer | | Thermometer |
| | | •Satisfaction Survey |

RESULTS

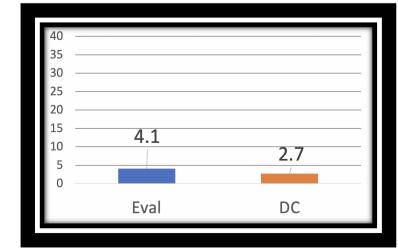
- Of (N=206) patients evaluated pre-operatively, (N=83) completed both pre-operative and post-operative measures.
- All (N=83) patients achieved independence in ADLS, and those no longer restricted by post-operative precautions regained independence in IADLs

NCCN DISTRESS THERMOMETER



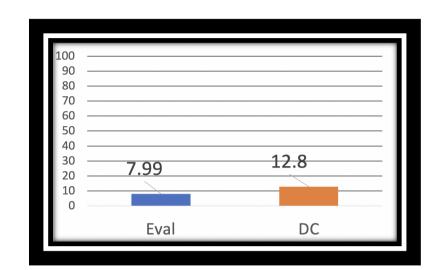


Simple, Paired t-test, 1-tailed: T-statistic: $6.37 P = 3.91 \times 10^{-9} (P = <.001)$. Distress level significantly decreased



Simple, Paired t-test, 1-tailed: Tstatistic: 6.37 P = 0.0003 (P= <.001) Number of endorsed problems significantly decreased

QUICK DISABILITIES OF THE ARM, SHOULDER, AND HAND



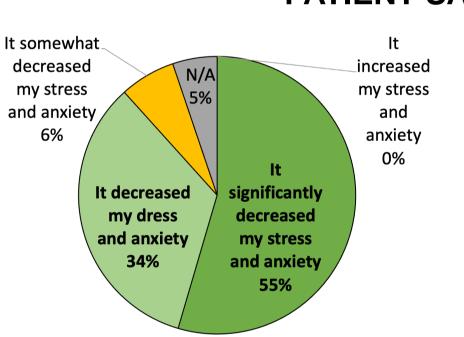
Simple, Paired t-test, 1-tailed: T-statistic: -2.27 P = 0.013 (P= <.05).

Quick DASH significantly increased

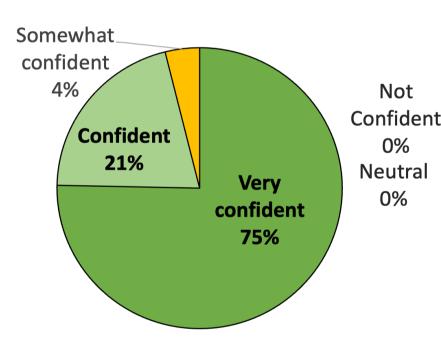


54 of 83 (66%) of patients discharge prior to end of 6-week precautions at their 1st post-op

PATIENT SATISFACTION



How did the OT program affect your stress and/or anxiety during your surgical process?



How confident do you feel performing your daily activities?

CONCLUSION

- OT services effectively support functional independence and reduce psychological distress in patients undergoing breast cancer surgery.
- Although mild declines in upper extremity function were observed due to surgical precautions, independence in ADLs and IADLs was maintained.
- Patient-reported outcomes highlight the program's effectiveness in reducing anxiety and improving overall recovery, underscoring the value of integrating OT into surgical care pathways.

REFERENCES

