

# Patient-reported symptoms in the perioperative period of breast cancer treatment

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## BACKGROUND

Patient-reported outcomes are an important component in assessing quality of care and success of treatment.

The impact of breast surgery on patient reported symptoms has not been previously reported at the population level.

## OBJECTIVE

To examine perioperative changes in nine common patient reported symptoms with breast cancer surgery

## METHODS

### Population & Design

- Retrospective cohort study 2007-2016
- Stage 1 -3 breast cancer undergoing surgery

### Data Sources

- Interactive Symptom Assessment and Collection database (ISAAC)
- Ontario provincial administrative healthcare data

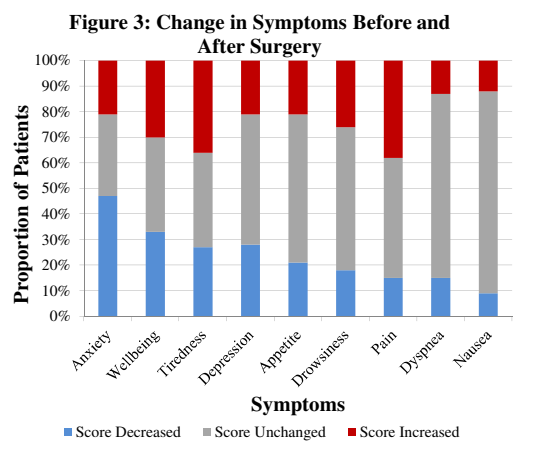
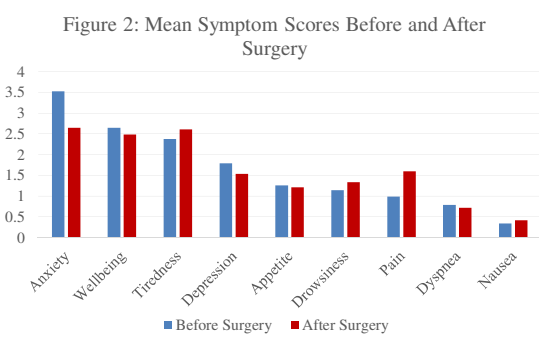
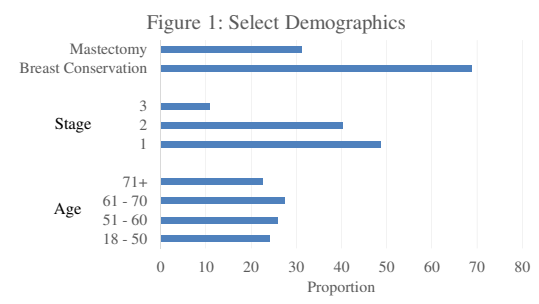
### Outcomes

- Mean scores in the Edmonton Symptom Assessment System (ESAS)
- Proportion of patients with a change in score  $\geq 1$  after surgery
- Mixed model for rate of change of scores

### Analysis

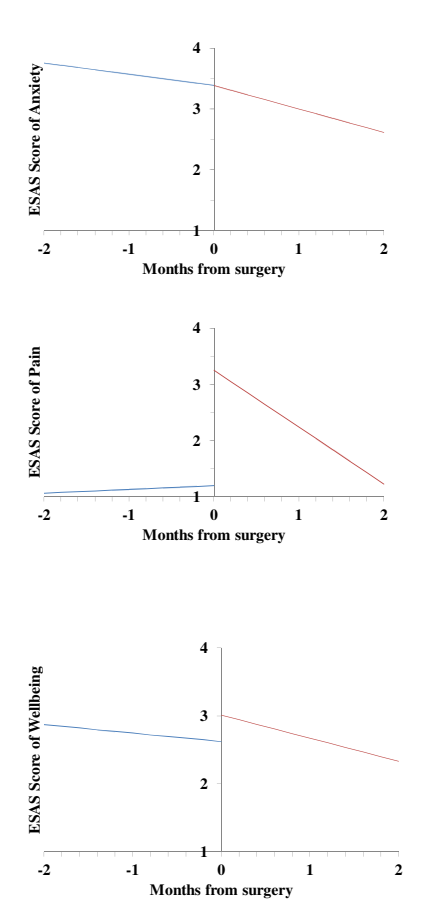
- Multivariable analysis with robust variance
- Generalized estimating equations
- Confounders were identified *a priori*

## RESULTS



The proportion of patients with an increase or decrease  $\geq 1$  or no change in symptom score before or after surgery for each of the nine symptoms.

Figure 4: Trajectory of ESAS Scores



## DISCUSSION

This **unique cohort of 2,234** had 8,000 assessments in 4 months making it **the largest study of patient reported outcomes in the perioperative period.**

Some limitations:

- Only a small proportion of patients had scores prior to surgery
- Restricted to regional cancer centers
- ESAS does not measure other important breast symptoms like body image, sexual health etc.

Anxiety dissipates rapidly in the perioperative period which may be attributable to the relief that patients feel after the physical removal of the cancer and once they have a treatment plan in place. Pain rapidly decreased after an expected inflection at surgery while wellbeing is almost unchanged. Optimal wait time management and communication regarding next steps in care may be more effective in managing anxiety in the diagnostic phase than specific interventions aimed at treating anxiety.

## CONCLUSION

Patient-reported symptom scores for anxiety often **decrease following surgery**, perhaps indicating that surgery and the development of treatment plans may mitigate symptoms among breast cancer patients.

Further efforts should be made to identify the subgroup of patients with increased anxiety after surgery, as they may need more individualized care.



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