PhD Transfer Oral Proposal Defence: Understanding And Reducing Barriers To Post-Mastectomy Breast Reconstruction In Ontario

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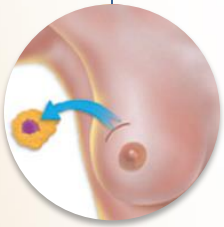
Objectives of Presentation

1. Discuss access to breast reconstruction
2. Acquire knowledge about the proposed PhD thesis aimed at exploring access to breast reconstruction in Ontario
3. Discuss strengths and limitations of proposal

Breast Cancer

Breast Cancer
1 in 9 Canadian women

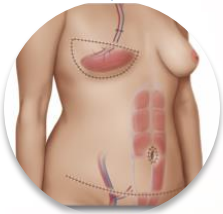


Breast Conserving Surgery

Mastectomy

Nothing

External prosthesis



Breast reconstruction

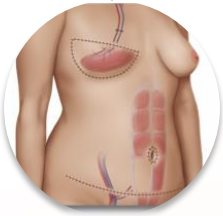
Breast Cancer Treatment

Mastectomy

Can lead to body image issues and a decline in quality of life

Nothing

External prosthesis



Breast reconstruction

Access to Breast Reconstruction

Immediate breast reconstruction rates:

(% of mastectomy)

9% in 2002 → 16% in 2012

3.4% in 1990 → 15% in 1998 → 38% in 2008

Barriers to Access

Patient

- older age
- rural geographic location
- immigrant status

Physician

- no referral to plastic surgeons

System

- non-teaching hospitals
- lack of operating room time

Study Rationale

- We are lacking a comprehensive summary of the barriers to breast reconstruction.
- The current literature fails to capture an understanding of ***how*** and ***why*** breast cancer patients experience barriers to access to BR
  - how these barriers may differ by institution or their location in the province of Ontario.
- Without a thorough understanding of these barriers, no effective interventions can be designed to improve access to BR.

Aims

MSc

- Aim 1: Comprehensive review of the literature to summarize the currently known barriers to breast reconstruction.

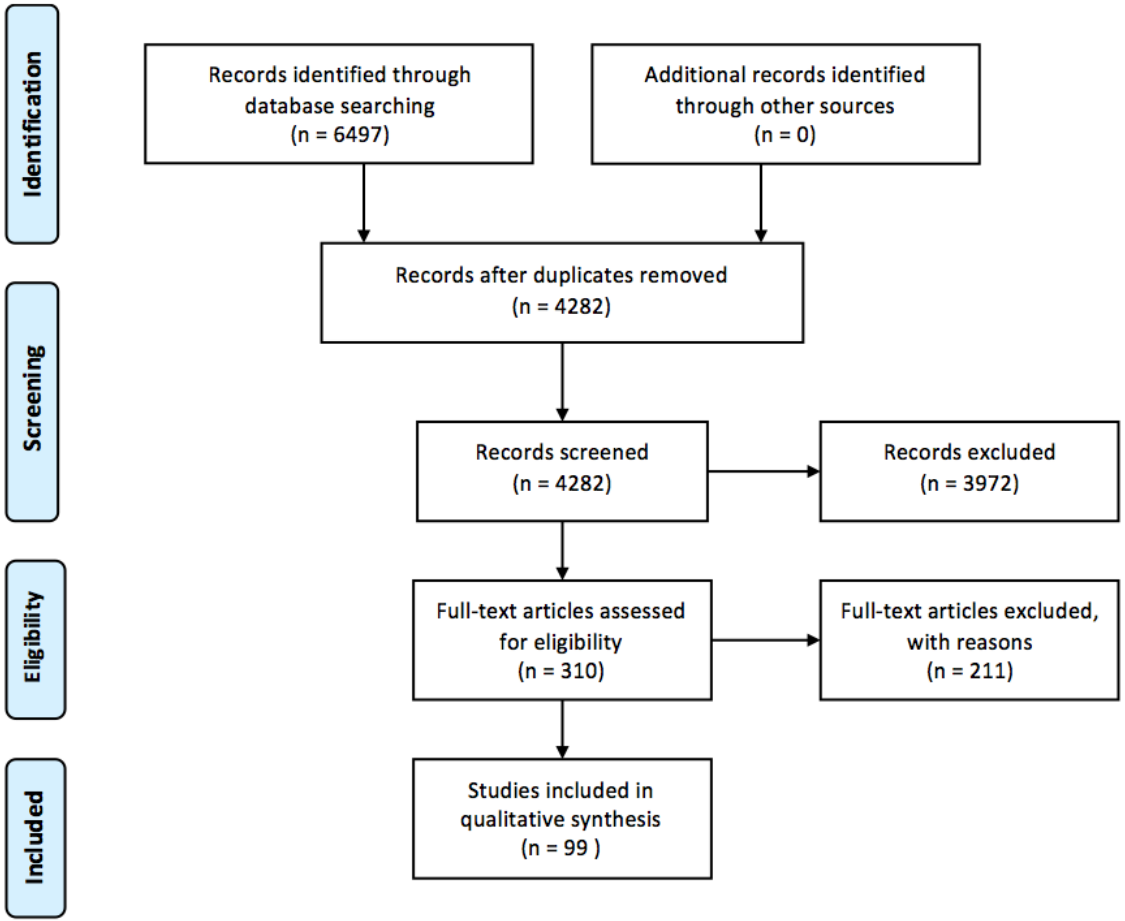
PhD

- Aim 2: Increase our understanding of barriers to BR in Ontario through qualitative research.
- Aim 3: Design interventions by engaging with key stakeholders through a one day end of project knowledge translation meeting.

Aim 1

Systematic Review

PRISMA Diagram



Access to Care Framework

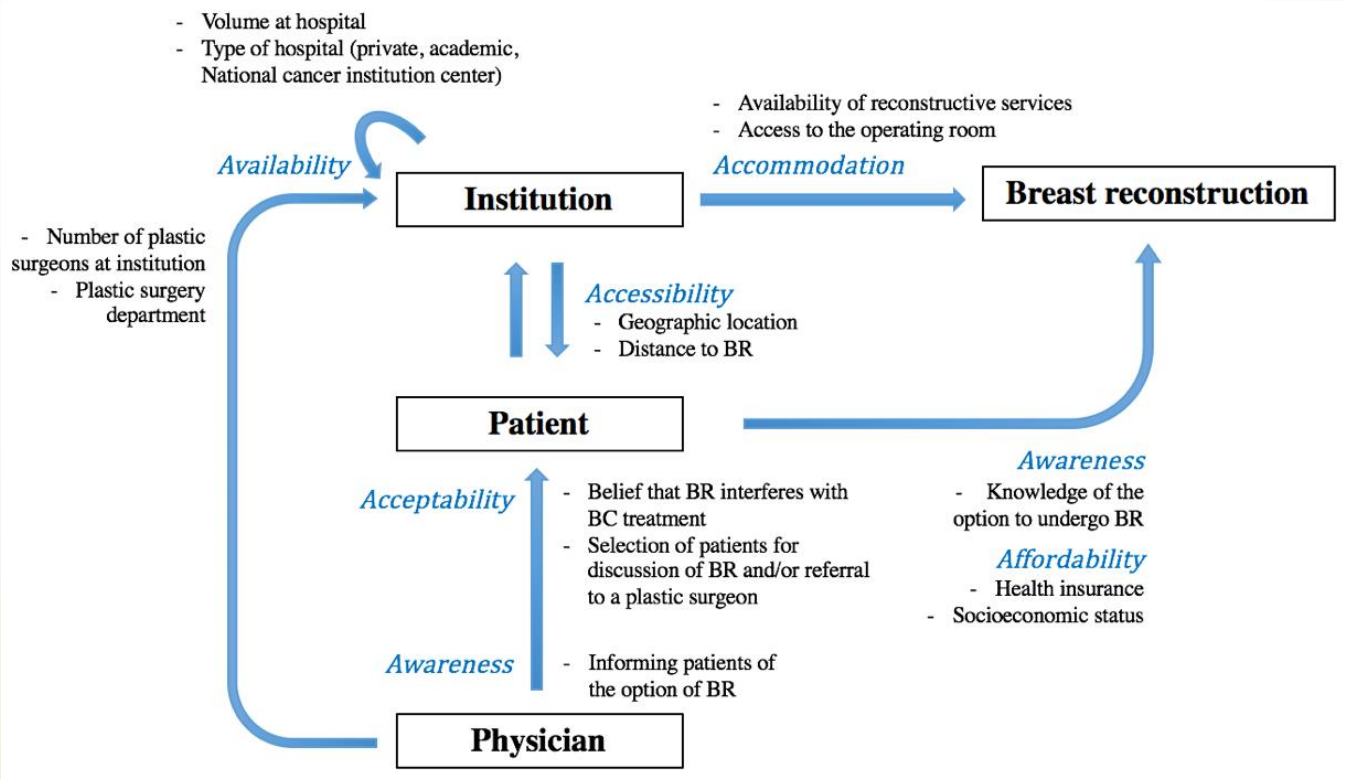
Penchansky, Thomas, and MacKillop Access to Care Framework

Domains	Definition
Availability	Relationship of the volume and type of existing services to the patient's needs
Accessibility	Relationship between the location of supply and the location of patients
Accommodation	Relationship between how the supply resources are organized and the patients' ability to accommodate to these factors
Affordability	Relationship of prices of services to the patients' ability to pay
Acceptability	Relationship of patients' attitudes about providers to the characteristics of providers, as well as to provider attitudes about acceptable personal characteristics of patients
Awareness	Awareness of services

Results - Systematic Review

Domains	BR Access
Availability	+ Teaching or academic hospital + Private hospital + National cancer institution center
Accessibility	+ Women living in urban locations - Greater distance to a plastic surgeon
Accommodation	- Reduced access to operating theatre time
Affordability	+ Private health insurance - Patients in lower socio-economic groups
Acceptability	- Older or male surgeons - Concerns that BR may mask the detection of local recurrence + Younger, more educated, married, Caucasian, English speaking patient
Awareness	- Patient not aware of the option of BR - Lack of timely information

Results - Systematic Review



Aim 2

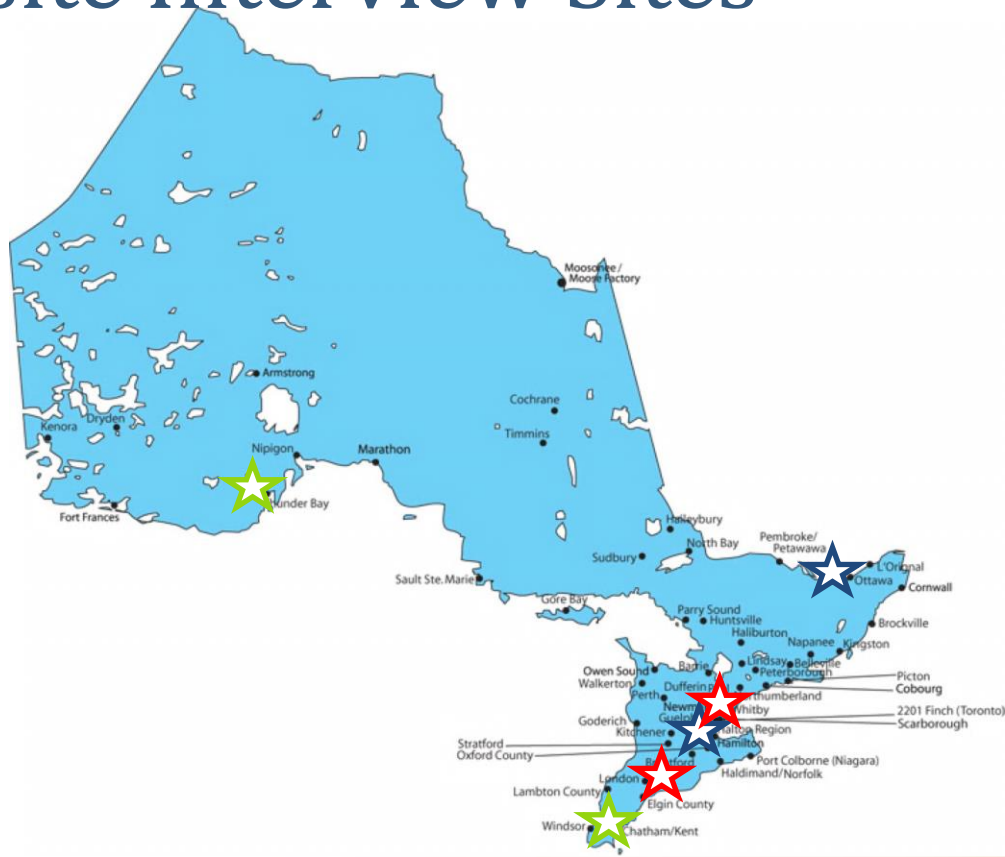
Qualitative Research

Methods - A. Pilot and B. Multisite Interviews

- Semi-structured interviews, 30-60 minutes length
- Participant: Breast cancer patient, clinician, administrator
- Purposive and snowball sampling
- Sample size: *54 total or until saturation achieved*
  - 3 breast cancer patients, 6 sites: 18 total
  - 3 physicians, 6 sites: 18 total
  - 3 administrators, 6 sites: 18 total
- Theoretical Framework:
  - Constructivist paradigm
  - Qualitative descriptive methodology
- Analysis: Thematic analysis

Methods - Multisite Interview Sites

- **High Volume** (> 20 cases/year)
  - Toronto
  - London
- **Medium Volume** (10-20 cases/year)
  - Ottawa
  - Hamilton
- **Low Volume** (< 10 cases/year)
  - Thunder Bay
  - Windsor



Methods - Interview Guides

Patient

- Discuss experience with treatment of breast cancer, emphasizing views on BR.

Physician

- Discuss current practice in breast cancer treatment, with emphasis on personal beliefs and values of BR

Administrator

- Discuss current institutional breast cancer treatment regimens, specifically, availability and structure of the BR program

Results - Pilot Interviews Themes

Patient interest / desire	"I pushed for immediate reconstruction when the breast was going to be removed" (001 Patient) "the patient's desire is the most important part of this" (003 Surgeon)
Individual view on ideal candidate	"some patients are interested, but they're not really good candidates" (003 Surgeon)
Organized group / teamwork	"we have a good group: we have good surgeons, and we have a good clinical coordinator, and I think almost everyone that really wants it and are candidates for it, get it" (003 Surgeon) "we get in together and strategize and work together" (002 Administrator)

Aim 3

End of Project Knowledge Translation Meeting

Methods - Knowledge Translation Meeting

- One centralized provincial stakeholder meeting
- Engage with key stakeholders to develop interventions to target the identified barriers to BR
- Modified Delphi Technique to achieve consensus on the barriers to be prioritized and addressed as well as select appropriate and feasible interventions to target these
- Participants: 15 total
  - Breast cancer patients, physicians, administrators
  - Policy makers, key partner organization
- Goal: Produce a summary report of identified challenges, gaps and potential solutions

Limitations

- Recruitment of participants
  - Patients from BR waitlist
  - ✓ Will aim to select participants with varying opinions, from geographically diverse regions, with different beliefs and values

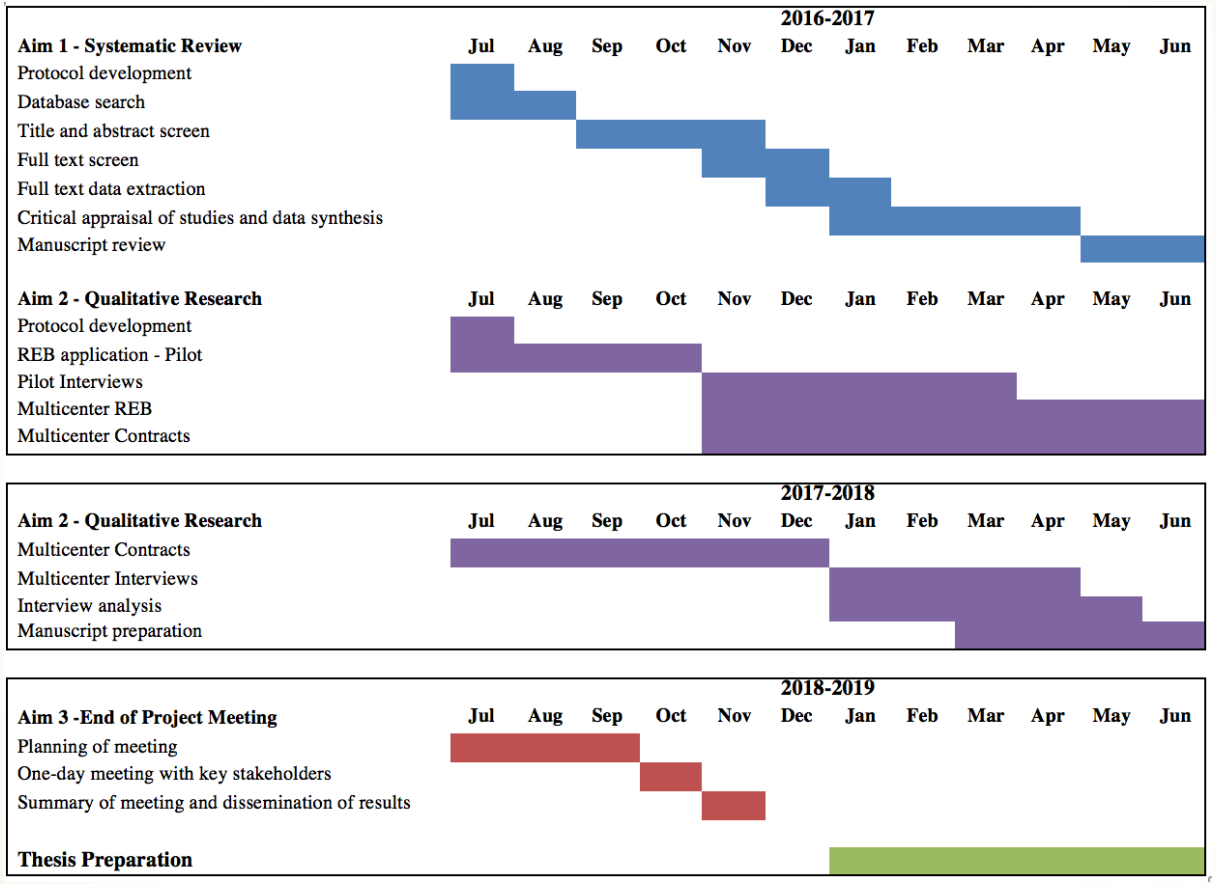
- Bias towards breast reconstruction
  - ✓ Expert multidisciplinary thesis committee with balanced and neutral view on this topic
  - ✓ Use of reflexivity

Implications

- A thorough understanding of barriers to BR is needed in order to engage with key stakeholders to develop interventions to improve access to BR.

- The ultimate goal is to ensure that access to BR is equitable, timely, and local across Ontario.

Timeline


2016-2017
Aim 1 - Systematic Review
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun
Protocol development
Database search
Title and abstract screen
Full text screen
Full text data extraction
Critical appraisal of studies and data synthesis
Manuscript review
Aim 2 - Qualitative Research
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun
Protocol development
REB application - Pilot
Pilot Interviews
Multicenter REB
Multicenter Contracts
2017-2018
Aim 2 - Qualitative Research
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun
Multicenter Contracts
Multicenter Interviews
Interview analysis
Manuscript preparation
2018-2019
Aim 3 -End of Project Meeting
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun
Planning of meeting
One-day meeting with key stakeholders
Summary of meeting and dissemination of results
Thesis Preparation

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  - Associate Professor, IHPME, University of Toronto
  - Adjunct Scientist, Institute for Clinical Evaluative Sciences, University of Toronto

- **Dr Anna R Gagliardi**, MSc, BEd, MLS, PhD
  - Scientist, Toronto General Hospital Research Institute, University Health Network
  - Professor, Department of Surgery, IHPME and IMS, University of Toronto

- **Dr Fiona Webster**, MA, PhD
  - Scientist, Wilson Centre for Medical Education, University of Toronto
  - Associate Professor, Dalla Lana School of Public Health

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CIHR IRSC
Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

Thank you!

Questions?

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