

Rhys Bernard^{1*}, Adam Alnajjar^{2*}, Julie Ryan Wolf³, Deborah Kirk^{4,5}, Corina Van Den Hurk⁶, Henry C. Y. Wong⁷, Kaori Tane⁸, Shing Fung Lee⁹, Sarina Sadeghi¹⁰, Edward Chow¹⁰, Michael Jefford¹¹, Bolette Skjødt Rafn¹², Matthew Wallen¹³, Ángela Río-Gonzalez^{14,15}, Monique Bareham^{16,17}, Stephanie Phan²¹, Debanjan Kundu¹⁸, Julia Hobbs-Wunsche¹, Samantha Kennedy¹⁰, Ayush Patel^{10,19}, Krish Devgan¹, Shayan Raesi Dehkordi²⁰, Rouhi Fazelzad²¹, Jennifer Kwan^{22#}, Muna Alkhaifi^{23#}

1. McMaster University, Health Sciences, Canada, 2. Western University, Medical Sciences, Canada, 3. Departments of Dermatology and Radiation Oncology, University of Rochester Medical Centre, Rochester, NY, USA, 4. School of Nursing and Midwifery, Edith Cowan University, Bunbury, WA, Australia, 5. School of Nursing and Midwifery, La Trobe University, Bundoora, VIC, Australia, 6. R&D Department, Netherlands Comprehensive Cancer Organisation, Utrecht, the Netherlands, 7. Department of Oncology, Princess Margaret Hospital, Kowloon West Cluster, Hong Kong S.A.R, China, 8. Department of Breast Surgery, Hyogo Cancer Center, Hyogo, Japan, 9. Department of Medical Oncology & Hematology, Odette Cancer Centre, Sunnybrook Health Science Centre, Toronto, Canada, 10. Department of Medical Oncology & Hematology, Odette Cancer Centre, Sunnybrook Health Science Centre, Toronto, Canada, 11. Department of Health Services Research, Peter MacCallum Cancer Centre, Melbourne, VIC, Australia, 12. Danish Cancer Society National Cancer Survivorship and Late Effects Research Center (CASTLE), Department of Oncology, Copenhagen University Hospital Rigshospitalet, Copenhagen, Denmark, 13. Centre for Research on Exercise, Physical Activity and Health (CRExPAH), School of Human Movement and Nutrition Sciences, The University of Queensland, Brisbane, Queensland, Australia, 14. Faculty of Sport Sciences, Universidad Europea de Madrid, Villaviciosa de Odón, 28670 Madrid, Spain, 15. Sanamanzana Physiotherapy Clinic, 28003 Madrid, Spain, 16. Flinders Health Medical Research Consumer Advisory Board, Flinders University, South Australia, Australia, 17. South Australia Lymphoedema Compression Garment Subsidy Advisory Group, South Australia, Australia, 18. Dept of Radiation Oncology, Chittaranjan National Cancer Institute, Kolkata, India, 19. University of Toronto Scarborough, Toronto, Canada, 20. Queens University, Health Sciences, Canada, 21. Library and Information Services, University Health Network- Princess Margaret Cancer Centre, 22. Radiation Medicine Program, Princess Margaret Cancer Centre, University health network, Toronto, Canada, 23. Department of Medical Oncology and Hematology, Odette Cancer Centre, Sunnybrook Health Science Centre, Toronto, Canada

*Contributed equally as joint first authors, # Contributed equally as joint senior author

Introduction

- Breast cancer-related lymphedema (BCRL) is a progressive treatment-related side effect that 14-40% of all breast cancer survivors cope with^{1,2}.
- BCRL can decrease physical well-being, cause pain and discomfort, and restrict mobility and function².
- This needs to be managed through lifelong self-management and treatment.

Aim

To understand the effectiveness of various self-management strategies for BCRL patients.

Methods

- A comprehensive search was performed to identify self-management interventions for BCRL, the date of inception to November 2023.
- Databases: Medline, Embase, Cochrane CENTRAL, Cochrane Database of Systematic Reviews, PsycINFO, Scopus, and Web of Science.
- Risk of bias was assessed using Cochrane Methods Robins-I and Robins-2

Table 1. Characteristics of articles included

	Number of studies n (%)
Year of Publication	
2020 and after	19 (41%)
2010-2019	24 (52%)
2000-2009	2 (4%)
Before 2000	1 (2%)
Country Of Study	
North America	14 (30%)
Asia	14 (30%)
Europe	12 (26%)
Not reported	3 (7%)
Australia	2 (4%)
Africa	1 (2%)
Study Type	
Randomized Control Trial	19 (41%)
Other	15 (33%)
Randomized Control Pilot Study	4 (9%)
Prospective Study	4 (9%)
Cross-Sectional	1 (2%)
Randomized Cross-over	1 (2%)
Non randomized Interventional	1 (2%)
Randomized Controlled Prospective	1 (2%)

Results

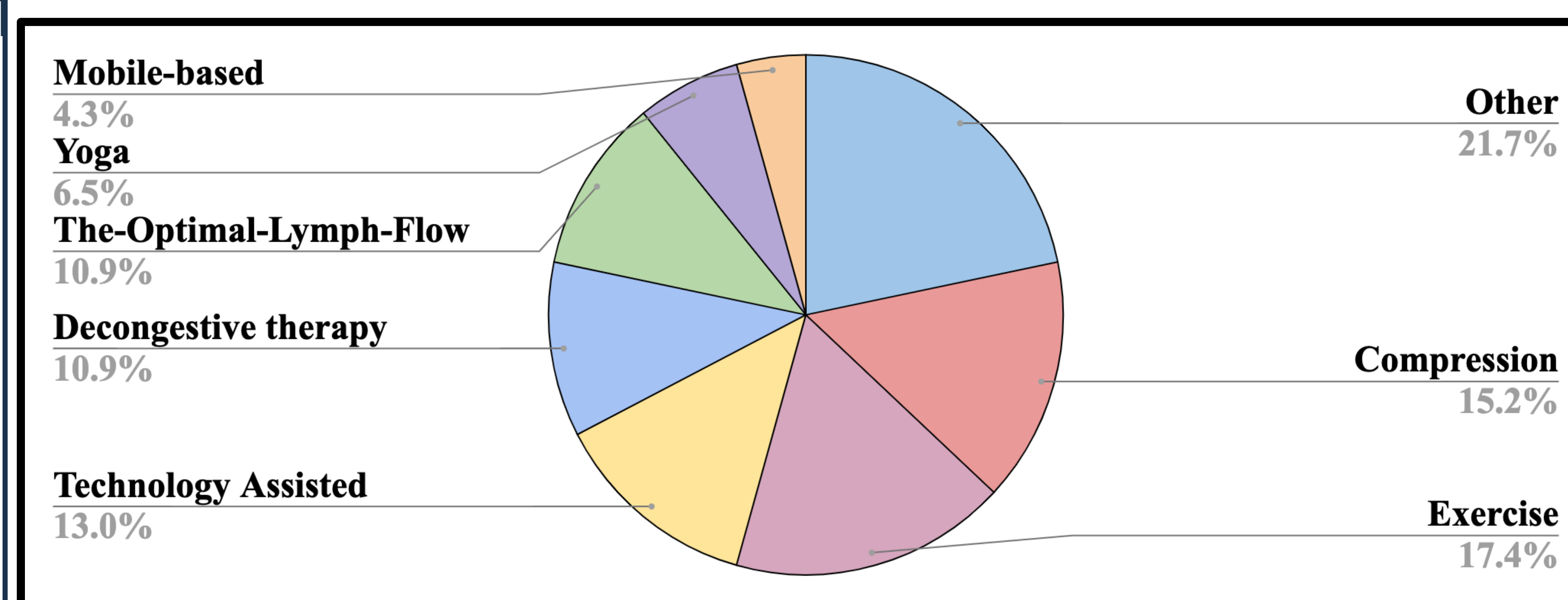


Figure 1. Types of Interventions Included

The-Optimal-Lymph-Flow (TOLF)

- All 5 TOLF studies reported improvement in lymphedema management
- 3 studies reported a decrease in arm volume
- 3 studies also reported QOL improvements; reduced psychological distress, increased empowerment, and improved symptom management.
- Limitations: limited sample size, motivation sustainability, and technological barriers

Compression Garments

- 7 studies were included in the review (15.2%)
- All reported positive improvement with use of compression garment
- 3 studies offered evidence showing improvement in arm volume
- 1 study examined the impact on health-related quality of life (HRQOL)
- *one study is still ongoing

Manual Lymphatic Drainage (MLD)

- 5 studies were included in review
- 4 studies reported a decrease in arm volume
- Quality of life improvements were reported in 4 studies
- One study found that a massage device may be more effective than MLD

Exercise

- 8 studies were included in the review
- 4 studies concluded that exercise training improved lymphedema symptoms
- 1 study found no improvements with exercise
- 2 studies found that education + sleeve compression + exercise showed no differences compared to education only
- 1 study found that home-based exercise has lower adherence than supervised

Future Recommendations

Possible areas for more research:

- Yoga
- Kinesiology Tape
- Mobile-Based Programs
- Self-lymphatic drainage versus manual lymphatic drainage

References

- Fu X, Lu Q, Pang D, Shen A, Shih YA, Wei X. Experiences of breast cancer survivors with lymphedema self-management: a systematic review of qualitative studies. *Journal of Cancer Survivorship*. 2022 Jun 30;
- Zhao H, Wu Y, Zhou C, Li W, Li X, Chen L. Breast cancer-related lymphedema patient and healthcare professional experiences in lymphedema self-management: a qualitative study. *Supportive Care in Cancer*. 2021 Jul 5;



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- Breast cancer patients 18+
- Home-based Intervention
- Primary research studies only