

PRE AND POST OPERATIVE PHYSIOTHERAPY FOR BREAST CANCER: A LITERATURE REVIEW

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Abstract: Background & Introduction: Breast cancer is the most prevalent malignancy among women with highest survival rates amongst all cancer. Pre & post-operative physiotherapy treatment being used with breast cancer patients.

Implementation strategies including music therapy, stress management training, informational & emotional support session, compression bandage, LLLT, physical exercise (aqua lymph training; Hydrotherapy & yoga) & APCD is used for home protocol.

Methodology:

The author conducted a comprehensive search of open access articles of major scientific databases including Pub Med, SCIEDIRECT, EBSCO, SCOPUS, Web of Science, shodhganga, Google Scholar etc. Five significant scientific studies were found relating to the Pre& post-operative physiotherapy for breast cancer.

Results: Effective intervention employed to reduce anxiety symptoms among preoperative breast cancer patients & postoperative intervention reduced proximal arm volume, improve ROM & QOL.

Conclusions: There is sparing research to draw on to determine the optimal approach to decrease preoperative anxiety for this patient population & for postoperative particularly for shoulder mobility & lymph-edema good evidence for narrowly focused physiotherapy management.

Keywords: Advanced Pneumatic Compression Device (APCD), Low Level Laser Therapy (LLLT), Music Therapy, Quality Of Life (QOL), and Range of Motion (ROM).

Table of Contents:

S.NO.	CONTENTS	PAGE NUMBER
1	INTRODUCTION	5-7
2	MATERIALS & METHODS	8
3	RESULTS & DISCUSSION	9-11
4	FUTURE SCOPE	12
5	CONCLUSION	13
6	ACKNOWLEDGEMENT	14

WITH THE GRACE OF GOD I DEDICATE THIS TO MY DEAREST PARENTS & TEACHERS

Introduction:

The aim of the study is about diversity of application, broadly scope of physical therapy, health promotion and evidence based practice.

Breast cancer is the extremely prevailing malignancy into women by higher survival rates amongst all cancer. Pre & post-operative physiotherapy treatment being used with breast cancer patients.

Step-in-aid of the execution strategies accompanied music therapy, stress management training, informational & emotional support session, compression bandage, LLLT, physical exercise (Aqua lymph training, hydrotherapy & yoga) & APCD is used for home protocol.

Breast cancer prevalence range from 27 per 100,000 women in middle Africa & eastern Asia to 96 per 100,000 women in Western Europe.

Cancer is a group of abnormal cell growth with the potential to invade other parts of the body.

There are various dis-contiguous types of remedy for breast cancer associated, mastectomy, axillary lymph node dissection (ALND) & regional lymph node radiation.

There are various probable side effects of breast cancer remedy such as pain & restlessness, infection, lymphedema, seroma etc.

Pre-operative anxiety is a purport that affects surgical patients at a higher betides in one or two patient's population such as breast cancer patients.

“Anxiety defines as feelings of fears, tension, flurry & high autonomic activity that varies in intensity & degree of fluctuation over time”.

Preoperative anxiety may lead to increased pain, hemodynamic changes, arrhythmias & increased anaesthetic requirements.

Complementary elective remedy for breast cancer patients: several explorers have investigated complementary elective remedy for breast cancer patients continue remedy after surgery for breast cancer patients. Music therapy, Yoga therapy, Cognitive therapy, muscle relaxation & other forms of complementary elective remedy have been evaluated in these patients population.

The most ordinary cause for pursuing elective remedy was to have less side effects & booster the defense mechanism. By using these techniques to reduce tension & anxiety fell in the middle of the ranking of cause breast cancer patients used these remedy.

Patients using complementary remedy including yoga & other relaxation techniques - music therapy, deep breathing techniques. Management of long term side effects of breast cancer remedy is most important for the betterment of quality of life of breast cancer survivors.

Physiotherapy remedy of post-operative breast cancer related lymphedema, various methods have been used with varying outcomes. Compression bandage, physical exercise (Aqua lymph training, yoga & aerobic), LLLT, IPC, taping & APCD - all are used for the management.

Materials and Methods:

STUDY DESIGN: Descriptive Study

SOURCE OF DATA: PubMed, SCIEDIRECT, EBSCO, SCOPUS, Web of Science, shodhganga, Google Scholar.

INCLUSION CRITERIA: Two studies were selected based on inclusion criteria. One pilot study has included a current standard of physiotherapy patient's care.

- Documentation.
- Clinical Patient centred approach.
- Evidence based practice.
- Profession ethics.
- Advancement in physical therapy.

EXCLUSION CRITERIA:

- Verbal assessment.
- Technique based approach.
- Unethical practice approach.
- Traditional approach in physical therapy.

Results and Discussion:

Effective intervention employed to reduce anxiety symptoms among preoperative breast cancer patients and postoperative intervention reduced proximal arm, improve range of motion and quality of life.

Low level laser therapy (LLLT) in the management of breast cancer related lymphedema is much effective for limb oedema reduction.

Kinesio-taping was effective on post-mastectomy lymphedema related to breast cancer.

Active resistive exercise with complex decongestive physical therapy was fairly decreased proximal arm volume and improves quality of life.

More research needed based on Pre-and-post operative physiotherapy for breast cancer patients.

A lack of evidence for complementary elective remedy for breast cancer patients.

Future Scope:

Physical therapy a critical component while recovering from breast cancer surgery. By creating awareness about the role and importance of physical therapy in Pre -and- post operative cancer patients it will provide better results and can include lots of advance techniques in remedy and provide more evidence for evidence based practices and improve the quality of life of patients in much more efficient way.

Conclusion: There is sparing research to drawn on to determine the optimal approach to decreased preoperative anxiety for this patients population and for postoperative particularly for shoulder mobility and lymph-edema good evidence for narrowly focused physical therapy management.

More research yet required to be organized in the use of complementary elective medicine for the use of reducing anxiety in breast cancer patients.

Various techniques for Pre-and-post operative physiotherapy intervention for breast cancer patients like music therapy, stress relaxation techniques, acupuncture, low level laser therapy (LLLT) and many more.

For health stopover and disease stopover strategies -

- i. Monitoring cancer recurrence and
- ii. To encourage preferable quality of life during the amphibolic period of survivorship.

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References:

- [1] <http://shodhganga.inflibnet.ac.in:8080/jspui/handle/10603/248194?mode=full>
- [2] <http://shodhganga.inflibnet.ac.in:8080/jspui/handle/10603/255664>
- [3] <https://www.sciencedirect.com/science/article/pii/S1836955312700723>
- [4] https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=independent+physiotherapy+practice&oq
- [5] Cook DJ, Jaeschke R and Guyatt GH. Critical appraisal of therapeutic interventions in the intensive care unit: human monoclonal antibody treatment in sepsis. Journal Club of the Hamilton Regional Critical Care Group. J Intensive Care Med.1992 Nov-Dec;7(6):275-82.
- [6] Clinical Practice Guideline for Health Care Professionals. The Journal of Spinal Cord Medicine 2005;28(5): 433- 470.
- [7] .The process of developing standards [Internet]. [Cited 2018 Feb.]. Available from: <http://www.gnbsgy.org>.
- [8] .Qualitative research methods overview. Qualitative research methods: A Data Collector' field guide [Internet]. [Cited 2018 July]. Available from: <http://www.course.ccs.neu.edu>.
- [9] .Shooneboom J, Johnson RB. How to construct a mixed method research design. Kolner Z Soz Sozpsychol. 2017; 69:107-131.
- [10] The nature and design of mixed methods research. Best practices for mixed methods research. Available at <http://www.obsr.od.nih.gov>].
- [11] Designing and Conducting Research on Policy Implementation: Multiple and Mixed-Methods for Implementation Research [Internet]. [Cited 2017 Dec.]. Available from: <http://www.activelivingresearch.org>
- [12] Video conferencing, Web conferencing, webinars, screen sharing [Internet]. [Cited 2020 May]. Available from: <http://www.zoom.us>.
- [13] World Confederation of Physical Therapists Guidelines, Policy Statement: Evidence Based Practice. London, UK: WCPT; 2011 www.wcpt.org/policy/ps-EBP, accessed April 2012.
- [14] World Confederation of Physical Therapists Strategic Plan. www.physiotherapyindia.org.in/WCPT_Strategic_Plan_2011-2015.pdf (accessed 3rd Apr 2012).
- [15] Edward J. Mullen, David L. Streiner. The Evidence For and Against Evidence-Based Practice. Brief Treatment and Crisis Intervention. Summer 2004; 4(2): 111-121

- [16] Turner P, Evidence based practice and physiotherapy in the 1990's. *Physiotherapy Theory and Practice*. 2001; 17(2): 107-121
- [17] Jette DU et al. Evidence-based practice: Beliefs, Attitudes, Knowledge and Behaviors of Physical Therapists. *Physical Therapy*. 2003; 83(9): 786-805.
- [18] National Health and Medical Research Council. (2009). NHMRC Levels of Evidence and Grades for Recommendations for Developers of Clinical Practice Guidelines. Retrieved 2 July, 2014 from: https://www.nhmrc.gov.au/_files_nhmrc/file/guidelines/developers/nhmrc_levels_grades_evidence_120423.pdf
- [19] Kendall, S. Evidence-based resources simplified. *Canadian Family Physician*, 2008; 54: 241-243
- [20] http://shodhganga.inflibnet.ac.in:8080/jspui/bitstream/10603/255664/4/04_abstract.pdf
- [21] http://shodhganga.inflibnet.ac.in:8080/jspui/bitstream/10603/248194/9/09_abstract.pdf
- [22] Raja K. Physiotherapy- The state of the profession in India: An analysis. *Physiotherapy - J Indian Assoc Physiotherapy*. 2017;11: 34-6
- [23] Maher CG, Sherrington C, Elkins M, and Herbert RD, Moseley A: Challenges for evidence-based physical therapy: accessing and interpreting high-quality evidence on therapy. *Physiotherapy* 2004, 84:644–654.
- [24] Panhale V, Bellare B “Evidence Based Practice among Physiotherapy practitioners in Mumbai, India” *Education for Health*, August 2015; 28(2): 154-155
- [25] Ross EC, Anderson EZ. The Evolution of a Physical Therapy Research Curriculum: Integrating Evidence-Based Practice and Clinical Decision Making. *Journal of Physical Therapy Education* Winter 2004; 18 (3), 52-57.
- [26] Dawes M, Summerskill W, Glasziou P, Cartabellotta A, Martin J, Hopayian K, Porzolt F, Burls A, Osborne J.. Sicily statement on evidence based practice. *BMC Med Educ*. 2005; 5(1).
- [27] Sackett D, Straus S, Richardson, W Rosenberg, W and Haynes R. 2000. *Evidence based Medicine: How to practice and teach EBM*. 2nd edition, Churchill Livingstone. Edinburgh
- [28] Gorgon EJR, Barrozo HGT, Mariano LG, Rivera EF: Research evidence uptake in a developing country: a survey of attitudes, education and self efficacy, engagement, and barriers among physical therapists in the Philippines. *J Eval Clin Pract* 2013, 19:782–790.
- [29] Leslie G Portney, Evidence-Based Practice and Clinical Decision Making: It's Not Just the Research Course Anymore. *Journal of Physical Therapy Education* Winter 2004; 18(3), 46-50.
- [30] Panhale V, Bellare B, Jiandani M. 'Evidence based practice in Physiotherapy curricula: a survey of Indian Health Science Universities', *Journal of Advances in Medical Education & Professionalism*. 2017 Jul; 5(3): 101–107. (PMC: 5522901)
- [31] Brendan McCormack, Alison Kitson, Gill Harvey, Jo Rycroft-Malone, Angie Titchen and Kate Seers 'Getting evidence into practice: the meaning of 'context' *Journal of Advanced Nursing*, 38(1), 94–104.
- [32] Goldblatt H, Karnieli-Miller O, Neumann M. Sharing qualitative research findings with participants: study experiences of methodological and ethical dilemmas. *Patient Educ Conus*. 2011;82(3):389-95
- [33] https://www.researchgate.net/publication/308080661_Patient-centered_care_in_physical_therapy_definition_operationalization_and_outcome_measures.