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Awareness and Knowledge of Physiotherapy among Breast Cancer Patients: An Observational Cross-Sectional Study

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Abstract

Background and objectives: Physiotherapy can help women recover and manage physical problems related to breast cancer treatment. However, patients may not always receive clear information about rehabilitation. This study assessed women's awareness of physiotherapy and their knowledge of its role after a breast cancer diagnosis.

Methods: This observational cross-sectional study was carried out over six months in community settings, oncology clinics, hospitals, old-age homes and non-governmental organizations. We interviewed a convenience sample of 329 women of different ages who were receiving or had completed breast cancer treatment. A six-item questionnaire, adapted with permission from an instrument used in Kosovo, was used to collect the information. Responses were summarized as frequencies and percentages, and composite awareness and knowledge categories were reported from the dataset.

Results: The mean age was 56.2 ± 14.0 years and mean time since diagnosis was 6.1 ± 4.0 years. For the composite awareness score, 33% of responses were categorized as adequate, 41% as partial and 26% as no awareness. For composite knowledge, 27% were categorized as good, 49% as basic and 24% as insufficient. Approximately 48% reported a good or clear understanding of physiotherapy, while 33% reported a broad understanding of its role in breast cancer care. Only 17.6% said their doctor had fully informed them about physiotherapy, and 32.5% reported specific advice to undergo physiotherapy.

Interpretation and conclusions: Many responses showed only partial awareness, while understanding of physiotherapy's specific role remained limited. The gap between general awareness and the information or advice provided by clinicians points to the need to consider clearer patient education and referral pathways in breast cancer care. These findings should be interpreted cautiously because convenience sampling was used and the composite scores were calculated at the response level, as described in the source thesis.

Introduction

Breast cancer is an important health concern for women in India. Alongside the effects of cancer itself and its treatment, women may face physical difficulties that interfere with everyday activities and quality of life. Physiotherapy and rehabilitation may help manage shoulder pain and limited movement, axillary web syndrome, lymphoedema-related problems, fatigue and other treatment-related functional difficulties [1,4-

9,19,20]. Exercise, stretching and selected manual techniques have been studied as ways to improve function and manage symptoms during recovery.

Although rehabilitation can play a useful role, awareness of and access to these services vary. Studies in India and elsewhere have found that patients may have limited knowledge of physiotherapy, receive little information from healthcare professionals or face barriers when trying to access rehabilitation [10-12,15,18]. Other research has emphasized the value of patient education and the link between knowledge and participation in rehabilitation [14,16]. Women's understanding of physiotherapy and the advice they receive may therefore differ from one setting to another.

Assessing what patients know about physiotherapy can help identify gaps in communication that could be addressed during routine care. This study aimed to examine awareness of physiotherapy and women's knowledge of its role in breast cancer treatment and rehabilitation.

Methods

Study design and setting: An observational cross-sectional study was conducted over six months in community settings, oncology clinics, hospitals providing cancer treatment and surgery, old-age homes and non-governmental organizations.

Participants and sampling: The study included 329 female participants of any age who had been diagnosed with breast cancer and were undergoing or had completed treatment, including surgery, chemotherapy or radiotherapy. Convenience sampling was used. Patients unable to provide valid information because of cognitive or psychological conditions and critically ill patients in intensive care or receiving home care were excluded. Participants could withdraw at any time; data from a participant who withdrew were not to be used in the analysis.

Sample size: The thesis reports a target sample of 329, calculated using OpenEpi version 3 with a stated population size of 20,000, a type I error of 0.05 and an allowable error of 5%. The source thesis does not provide a fully legible, internally consistent account of all sample-size formula parameters; these should be verified against the original calculation before journal submission.

Questionnaire and data collection: A six-item interview-based questionnaire was adapted for the Indian population from a questionnaire used in a previous study in Kosovo. The thesis states that permission was obtained from the original author. Items covered prior awareness of physiotherapy, understanding of its role, previous experience, information provided by the doctor, rehabilitation advice and instructions to seek physiotherapy. Responses were recorded in a spreadsheet without participants' personal identifying details.

Outcomes and analysis: Individual questionnaire responses were summarized as percentages. Composite awareness categories were reported as adequate, partial or no awareness, based on three awareness-related items. Composite knowledge categories were reported as good, basic or insufficient, based on three knowledge-related items. The source thesis reports counts and percentages across 987 item-responses for each composite, rather than participant-level category counts. No inferential statistical tests are reported in the thesis.

Ethics: The thesis states that approval was obtained from an ethics clearance committee and that written informed consent was obtained from willing participants. The committee's full name, approval date and reference number were not present in the material available for manuscript preparation and must be added from the original approval documentation before submission.

Results

Participant characteristics: A total of 329 women with breast cancer were included. The mean age was 56.2 ± 14.0 years, and the mean time since diagnosis was 6.1 ± 4.0 years.

Composite awareness and knowledge: Across 987 combined responses to the three awareness-related items, 324 (33%) were categorized as adequate awareness, 403 (41%) as partial awareness and 260 (26%) as no awareness. Across 987 combined responses to the three knowledge-related items, 264 (27%) were categoried as good knowledge, 481 (49%) as basic knowledge and 242 (24%) as insufficient knowledge. These are response-level totals reported in the thesis and should not be interpreted as the number of individual participants in each category.

Responses to individual items: Approximately 48% reported knowing about physiotherapy clearly or very well, 31% reported some knowledge that was not very clear, and 21% reported no prior knowledge. Regarding the role of physiotherapy in breast cancer care, 33% reported a broad understanding, 51% a basic understanding and 16% insufficient knowledge.

Prior experience and clinician communication: Among the response options reported for previous physiotherapy experience, 54% described treatment as very useful, 29% reported that treatment was not impressive and 17% reported no experience. For information from doctors, 18% reported being fully informed, 44% receiving basic information and 38% receiving no information. Regarding rehabilitation advice, 30% reported personalised advice, 51% general advice and 19% no specific advice. For instructions to seek physiotherapy, 20% reported specific instructions, 47% said physiotherapy had been mentioned without detailed instructions and 33% said it had not been mentioned.

Discussion

The main finding was that responses more often reflected partial awareness than adequate awareness, and basic knowledge was more common than good knowledge of physiotherapy's role in breast cancer rehabilitation. Many participants seemed familiar with physiotherapy, but this did not always mean they understood how it could support their care. The limited information and referral advice reportedly provided by doctors were also important findings.

These results are similar to earlier reports describing limited awareness of physiotherapy among people with cancer. Pinky et al. found that 17.3% of participants with cancer knew about physiotherapy services, whereas Kabashi et al. reported awareness of physiotherapy's role among 62.6% of breast cancer survivors in Kosovo [11,12]. A survey involving patients before and after breast cancer surgery in Pune also found limited understanding of physiotherapy's specific role in rehabilitation [18]. Differences across studies may be related to the populations studied, the questions asked, the study settings and how awareness was measured.

The findings about communication with doctors are important because this communication may influence access to rehabilitation. In this study, fewer than one in five responses indicated that the doctor had provided full information about physiotherapy, and only about one-third indicated that specific advice to seek physiotherapy had been given. Jadhav et al. also described gaps in doctors' awareness of and recommendations for physiotherapy in the Karad region [10]. Similarly, a provincial survey in Canada found that although many women had rehabilitation needs, fewer had used rehabilitation services; lack of a recommendation or prescription was one reported barrier [15]. These findings highlight the importance of explaining rehabilitation clearly and making referral pathways easier to follow.

Depending on a patient's condition and treatment plan, physiotherapy may be useful at different stages of breast cancer care. Earlier studies have explored exercise and stretching for axillary web syndrome, strengthening exercises for shoulder problems, and the relationship between exercise, quality of life and fatigue [4,6,9,19]. The present study did not test the effectiveness of treatment or measure patient outcomes; it focused on awareness and reported knowledge. The findings therefore point to education and referral as areas worth addressing, but they do not show that a particular educational or referral approach would improve clinical outcomes.

The study's strengths include its sample of 329 participants and the use of an interview questionnaire adapted, with permission, from an instrument used previously, as stated in the thesis. However, several limitations should be considered. Participants were selected through convenience sampling, and the thesis notes that most came from urban settings. Interview answers may also have been affected by recall or subjective interpretation, and the adapted questionnaire's measurement properties in this population were not fully described. The study did not explore barriers to rehabilitation in rural areas in detail or report whether awareness differed by age, education, treatment status or time since diagnosis. Finally, the composite results are reported across 987 item-responses rather than as categories for individual participants. This limits interpretation and should be checked against the raw dataset before submission.

These findings may be most applicable to settings similar to those from which participants were recruited and should not be assumed to represent all women with breast cancer in India. Further studies should include more geographically and socioeconomically diverse samples, and examine factors associated with awareness and access. Evaluation of structured patient education and routine referral pathways would help determine whether these approaches improve understanding and use of rehabilitation.

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