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Original Article

Knowledge and Awareness of Physiotherapy among Cancer Survivors

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ABSTRACT

Background: Despite the established benefits of physiotherapy in oncology care, there remains a substantial gap in the awareness and utilization of rehabilitation services among cancer patients. The role of physiotherapy in improving the quality of life and functional independence of cancer survivors is well-documented, yet the integration of these services into standard cancer care protocols is not uniformly practiced.

Objective: This study aimed to assess the level of awareness and the barriers to physiotherapy among oncology patients in a tertiary care hospital, with an emphasis on understanding the gender-specific differences in awareness and interest in physiotherapy services.

Methods: A six-month cross-sectional survey was conducted at a tertiary care hospital in Sindh, employing a non-probability convenience sampling technique to recruit 318 participants. The sample size was determined using Raosoft sampling software, with a 95% confidence level, 5% margin of error, and 50% response distribution. Data were collected through self-administered questionnaires, focusing on patients' awareness of and interest in physiotherapy, and analyzed using SPSS version 25.0, with chi-square tests applied to assess statistical significance.

Results: The study found that only 17.3% of participants were aware of physiotherapy services, with significant gender differences in awareness (p=0.013) and interest (p=0.326) observed. Barriers to physiotherapy utilization included pain (91.5%), fatigue (90.6%), and financial constraints (78.9%). A stark 84.6% of patients reported not being informed about physiotherapy during their treatment.

Conclusion: The low level of awareness and significant barriers to accessing physiotherapy among cancer patients highlight the critical need for enhanced educational programs and improved communication between oncology and rehabilitation professionals. Addressing these gaps is essential for integrating physiotherapy into cancer care, thereby improving patient outcomes and quality of life.

Keywords: Physiotherapy, Oncology, Cancer Rehabilitation, Patient Awareness, Healthcare Barriers, Gender Differences, Quality of Life, Interprofessional Education.

INTRODUCTION

The origins of physiotherapy trace back to the early foundations of scientific inquiry, with eminent figures such as Hippocrates and Galen practicing forms of physical therapy as early as 460 BC (1). The evolution of the discipline, however, was notably influenced by significant global occurrences, including World War I, the polio epidemic, and an increase in disabilities among the population (2). Despite its extensive application in healthcare, the awareness and understanding of physiotherapy's role remain limited among both the public and medical professionals. This lack of recognition may stem from misconceptions about the field, which was often narrowly perceived as being focused solely on body movements and acupressure (3).

Physiotherapy encompasses a broad spectrum of subspecialties, reflecting its rich history and the depth of its professional domain. These areas include, but are not limited to, neurophysiotherapy, sports rehabilitation, wound care, cardiopulmonary rehabilitation,

geriatric, orthopedics, pediatric, and oncology rehabilitation (4). The literature underscores the critical role of rehabilitation in cancer care, aiming to support individuals with malignant diseases in achieving optimal physical, social, psychological, and occupational functionality (5). Exercise, a cornerstone of cancer rehabilitation, has been shown to alleviate fatigue, depression, improve cardiorespiratory fitness, and enhance overall quality of life. Supervised exercise programs have been identified as particularly effective in realizing these benefits (6).

The projected increase in cancer cases worldwide by 47% to 28.4 million by 2040 highlights the growing need for effective management strategies, influenced by demographic, economic, and global factors (7). In Pakistan, the incidence of new cancer cases has reached 0.18 million, as reported by the International Agency for Research on Cancer (IARC) (8). Cancer survivors face numerous challenges, including managing the side effects of treatments and the chronic nature of the disease. Common symptoms such as fatigue, pain, depression, and sleep disturbances, along with other conditions like apprehension, immobility, nausea, peripheral neuropathies, ataxia, muscle weakness, wasting, and osteoporosis, can be effectively managed through physiotherapy. The goal of cancer treatment extends beyond survival, aiming also to improve functional status and quality of life (9).

Cancer rehabilitation can be categorized into four types—preventive, restorative, supportive, and palliative—each tailored to different stages of the disease: the treatment phase, post-treatment phase, recurrence phase, and end-of-life phase (10). The integration of oncology rehabilitation programs faces systemic and personal challenges, including a lack of resources, educational opportunities, and training for healthcare providers on the importance of rehabilitation (11). Socioeconomic factors and caregiver involvement also present barriers to accessing rehabilitation services (12). Therefore, it is crucial to develop rehabilitation services across various settings, such as hospitals, cancer centers, and outpatient facilities, to ensure that patients can easily access these services (13). The responsibility falls on healthcare professionals to educate cancer patients on the importance of physical rehabilitation, emphasizing its role in enhancing recovery and quality of life (14).

MATERIAL AND METHODS

This study was conducted over a six-month period at a tertiary care hospital in Sindh, employing a cross-sectional survey-based methodology to assess the impacts of physiotherapy on cancer patients. Utilizing a non-probability convenience sampling technique, the sample size was determined based on an estimated population of 1811 individuals, representing the total population size at the study location. Through the application of Raosoft sampling software, and setting the parameters to a 95% confidence level, a 5% margin of error, and a 50% response distribution, the required sample size was calculated to be 318 individuals (15).

The inclusion criteria for the study were broad, encompassing both male and female cancer patients in various stages of their treatment—pre-operative, peri-operative, and post-operative—without restrictions on age or cancer type. Patients who were mentally incapacitated or otherwise unable to provide informed consent were excluded from the study. Data collection was carried out through the distribution of self-administered questionnaires to patients who provided written consent to participate.

The ethical considerations of the study were meticulously observed, in alignment with the Declaration of Helsinki, ensuring that all participants were informed of the study's purpose, the confidentiality of their responses, and their right to withdraw from the study at any point without consequence. The research protocol was reviewed and approved by the hospital's Institutional Review Board (IRB), affirming its adherence to ethical guidelines for research involving human subjects.

For the analysis of the collected data, the Statistical Package for the Social Sciences (SPSS) version 25.0 was employed. The chi-square test was utilized to evaluate differences between groups, with a p-value of ≤ 0.05 being considered statistically significant. This analytical approach allowed for a comprehensive examination of the data, facilitating the identification of significant patterns and associations related to the efficacy of physiotherapy interventions among the cancer patient population.

RESULTS

In the conducted study, a total of 318 participants were surveyed to assess their awareness and interest in physiotherapy, with the gender distribution revealing a significant skew towards female participants, who comprised 68.9% (219 individuals) of the sample, while male participants accounted for 31.1% (99 individuals), as shown in Table 1. This gender distribution sets the context for further analysis on physiotherapy awareness and interest among cancer patients within the studied population.

The assessment of physiotherapy awareness among participants, detailed in Table 2, uncovered a notable gender difference. Among male participants, only 11% reported being aware of physiotherapy as a treatment option, in stark contrast to 88% who were unaware, with none uncertain about their awareness. Conversely, female participants exhibited a slightly higher awareness, with 44 individuals (20%) acknowledging awareness of physiotherapy, 167 (76%) indicating no awareness, and a small fraction (8 individuals, approximately 4%) uncertain. The statistical analysis underscored this disparity with a significant p-value of 0.013, indicating a meaningful association between gender and awareness of physiotherapy within the surveyed population.

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Table 1: Gender Distribution of Participants

S.No	Gender	Frequency	Percentage
1	Male	99	31.1%
2	Female	219	68.9%

Table 2: Frequency and Association of Physiotherapy Awareness with Patient Gender

S.No	Gender	Aware (Yes)	Not Aware (No)	Uncertain (Not Sure)	P-Value
1	Male	11	88	0	**0.013
2	Female	44	167	8	

P-value ≤ 0.05 is considered significant. The asterisks () indicate that the findings are significant at the 0.05 level, highlighting a noteworthy association between gender and awareness of physiotherapy.

Table 3: Frequency and Association of Patients' Interest to Learn About Physiotherapy with Patient Gender

S.No	Gender	Interested (Yes)	Not Interested (No)	P-Value
1	Male	95	4	0.326
2	Female	203	16	

Exploring the interest in learning about physiotherapy revealed a different aspect of patient engagement, as captured in Table 3. A substantial majority of male participants (95 out of 99, or 96%) expressed an interest in learning more about physiotherapy, compared to a mere 4% who did not. This trend of high interest was similarly reflected among female participants, with 203 out of 219 (93%) showing interest and only 16 (7%) indicating no interest. Despite these high levels of interest across genders, the statistical analysis resulted in a p-value of 0.326, suggesting that the difference in interest levels between male and female participants was not statistically significant.

DISCUSSION

In the course of our investigation, it was revealed that a substantial majority (84.6%) of patients were not briefed on rehabilitation possibilities during their cancer treatment. This finding aligns with similar research that explored the experiences, barriers, and available services in oncology departments concerning physical therapy. These studies collectively underscore a prevalent lack of awareness among patients regarding physiotherapy services and the critical role physical therapists play in cancer rehabilitation (16). A specific study focusing on Physical Therapy Rehabilitation for Breast Cancer-related Lymphedema highlighted the significant potential for quality of life improvements through active movement and exercise programs post-surgery. However, it also noted that only a minority of medical professionals refer their patients to physical therapy outpatient departments, despite acknowledging the importance of physical therapists in both pre- and post-operative phases of breast cancer surgery (17).

Our study also delved into the barriers hindering exercise participation among cancer patients, both during and after treatment. The majority cited pain (91.5%), fatigue (90.6%), and financial constraints (78.9%) as the primary obstacles. This is consistent with findings from research on oncology rehabilitation provision and practice patterns, which identified a limited referral to oncology rehabilitation in cancer centers, hospitals, and clinics due to a lack of resources, awareness, and education (18). Furthermore, the literature suggests that cancer-related pain, potentially stemming from residual tissue damage from cancer and its treatments, could be alleviated through evidence-based outpatient physical and occupational therapy interventions, emphasizing the need for the active involvement of patients and their caregivers (19, 20). It has also been reported that general practitioners (GPs) possess a positive attitude towards promoting palliative care for cancer patients, yet a significant gap exists between their beliefs and actual referral practices, adversely impacting patient health (21).

Parallel to our findings, another study identified a notable deficiency in awareness and knowledge of physiotherapy among medical and health sciences undergraduates, suggesting a pivotal role for interprofessional education during undergraduate studies to bridge this gap (22).

The study's conclusions underscore a critical need for enhanced awareness and educational programs about physiotherapy among oncology patients, with only a fraction (17.3%) being informed of such services during their treatment. This emphasizes the necessity for a collaborative approach between rehabilitation and oncology professionals to ensure optimal cancer rehabilitation services are

accessible for those in need. The evidence suggests a significant shortfall in the provision of rehabilitation, highlighting the urgency of addressing this gap.

Reflecting on the study's strengths and limitations, one of the key strengths lies in its comprehensive exploration of both awareness and barriers to physiotherapy among cancer patients. However, the study is not without limitations, including its reliance on self-reported data, which may introduce bias, and the focus on a single tertiary care center, potentially limiting the generalizability of the findings. Future research should aim to expand the scope to multiple centers and incorporate objective measures of physiotherapy outcomes.

Recommendations based on this study include the integration of interprofessional education into medical and health sciences curricula, enhanced communication between oncology and rehabilitation professionals, and the development of targeted awareness campaigns to educate patients about the benefits of physiotherapy in cancer care. These measures are essential for bridging the existing knowledge gap and ensuring that cancer patients receive comprehensive, multidisciplinary care that includes physiotherapy as a key component.

CONCLUSION

The findings from this study illuminate a significant gap in awareness and utilization of physiotherapy among oncology patients, underscoring an urgent need for concerted efforts to enhance education and communication between healthcare professionals and patients. The implications for human healthcare are profound, suggesting that by fostering greater collaboration between oncology and rehabilitation services, patients can receive a more holistic approach to cancer care. This integration is essential for improving not only the physical well-being of patients through targeted physiotherapy interventions but also their overall quality of life, demonstrating the critical role of informed, multidisciplinary care strategies in the contemporary healthcare landscape.

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