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A Qualitative Investigation on How Medical Personnel View Their Supportive Role for Cancer Patients

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Abstract

Physical activity has been recognized as a key component in improving health outcomes for individuals undergoing cancer treatment. However, despite evidence supporting its benefits, discussions about physical activity are not routinely incorporated into cancer care. Healthcare professionals (HCPs) often hesitate to introduce the topic due to a lack of training and evidence-based resources. This study explores the perspectives of both HCPs and cancer patients regarding the integration of physical activity into routine care, identifying challenges and potential solutions to improve adherence.A qualitative study was conducted using semi-structured interviews with cancer patients and HCPs. Participants were recruited through a purposive sampling approach, and interviews were conducted virtually or via telephone. Data were analyzed using thematic analysis to identify recurring themes regarding the promotion and implementation of physical activity in oncology care.Findings revealed that physical activity is not consistently discussed with all cancer patients, with most conversations being patient-initiated. HCPs expressed reluctance to address physical activity due to limited training, lack of resources, and concerns about patient safety. Patients favored self-managed, home-based activity programs over structured exercise sessions in public settings. Both groups identified the need for digital resources, including mobile applications, to facilitate adherence. HCPs emphasized that brief, repeated conversations throughout the treatment pathway would be more effective in promoting behavior change. Additionally, they highlighted the importance of structured training modules to enhance their ability to guide patients effectively.Integrating physical activity into routine cancer care requires structured training for HCPs, access to evidence-based resources, and flexible, self-managed exercise options for patients. Mobile applications and remote tools can serve as scalable solutions to support adherence while minimizing disparities in access to physical activity guidance. Encouraging brief but repeated discussions throughout the care continuum may help normalize physical activity as part of cancer treatment, ultimately improving patient outcomes.

Introduction

Extensive research, including numerous systematic reviews [1,2,3], has firmly established the role of physical activity in preventing, managing, and improving survival outcomes for various adult cancers. Engaging in physical activity both during and after cancer treatment is considered safe, well-tolerated, and recommended by major health organizations such as the World Health Organization (WHO) and the American College of Sports Medicine (ACSM) [4]. The WHO advises that adults diagnosed with cancer should strive to remain active and aim for a minimum of 150 minutes of moderate-intensity aerobic exercise weekly, in addition to muscle-strengthening activities on at least two days per week [5].

Research has demonstrated that physical activity during and post-treatment offers several benefits, including improved psychological well-being [6], better cognitive function [7], increased adherence to chemotherapy regimens [8,9], reduced likelihood of developing comorbid conditions like cardiovascular

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disease, and a lower risk of cancer recurrence [1,10]. Despite this compelling evidence, physical activity remains underutilized as a core component of cancer care, with only 6% of oncologists worldwide recommending physical activity programs to their patients [11]. Additionally, a significant proportion of cancer patients report low levels of physical activity, with some becoming less active following their diagnosis [12,13].

Previous qualitative studies exploring the perspectives of oncology professionals have highlighted several barriers to incorporating physical activity guidance into standard cancer care. These obstacles include insufficient training and expertise on providing appropriate recommendations [14], limited consultation time, safety concerns regarding patient participation [15,16], and inadequate referral pathways to physical activity specialists [17,18]. However, further research is needed to identify factors that could facilitate the integration of physical activity into cancer care pathways. Given the increasing emphasis on healthcare professionals supporting patients in making positive lifestyle changes to improve overall health outcomes, initiatives such as Making Every Contact Count have gained prominence in healthcare systems.

This study seeks to examine both healthcare professionals' and cancer patients' perspectives on engaging in discussions that promote physical activity during cancer treatment. The findings will help inform future health policies and the development of strategies to support cancer patients in adopting and maintaining an active lifestyle to manage treatment-related effects and minimize the risk of recurrence.

Methods

This research employed a qualitative approach using semi-structured interviews with both breast cancer patients and healthcare professionals (HCPs). The study adhered to the COREQ guidelines (refer to the supplementary document). Ethical approval was obtained from the relevant ethics committee. HCPs involved in cancer care, including oncologists, surgeons, and cancer nurses, were invited to participate in virtual semi-structured interviews. A snowball sampling strategy was used to facilitate recruitment through professional networks, mailing lists, and social media platforms.

Individuals undergoing or having completed treatment for breast cancer were recruited through snowball sampling. Recruitment was promoted via cancer support groups, newsletters, and social media. Initially, the study aimed to include patients diagnosed within three years prior to the interview. However, after initial interviews revealed that those diagnosed during this timeframe had experienced disruptions in routine care due to the COVID-19 pandemic, the inclusion criteria were expanded to include all breast cancer patients regardless of the time elapsed since diagnosis.

Data Collection

Participants provided informed consent either verbally or via email before their interview, which was conducted via telephone or MS Teams, based on their preference. Interviews lasted between 20 and 50 minutes and were conducted privately with only the participant and the interviewer (KG) present, with no prior relationship between them.

Two tailored semi-structured interview guides—one for HCPs and another for patients—were developed by KG and AJD in alignment with the study objectives. The interviews explored perceptions of physical activity, perceived benefits, existing discussions on physical activity within cancer care, and potential enablers for integrating such conversations into routine clinical practice. Patients also provided demographic details and self-reported physical activity levels using the Exercise Vital Signs Questionnaire [19] to assess their engagement in physical activity.

KG conducted all interviews, which were audio-recorded and transcribed verbatim. After each interview, reflective notes were documented to summarize key points and refine the interview schedule if needed. KG, a senior research fellow with a PhD and expertise in mixed methods research across clinical and non-clinical populations, including breast cancer patients, recognized the potential for bias due to a strong

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advocacy for physical activity in cancer care. To mitigate this, CDM, who does not specialize in cancer rehabilitation, engaged in peer-to-peer debriefing during the analysis process [20].

Data Analysis

All interview transcripts were anonymized and analyzed using NVivo 12. An inductive thematic analysis approach was employed to identify patterns and themes within the data. Data collection and analysis occurred concurrently, with coding carried out by KG. Interviews were concluded once no new themes emerged.

Data from patient and HCP interviews were analyzed separately but presented together due to overlapping themes. The emerging themes were continuously discussed with AJD and CDM throughout the analysis process and were informed by reflective notes. KG and CDM further reviewed the themes, using thematic mapping to ensure a thorough interpretation beyond mere description. Theme titles and subthemes were refined iteratively, but no significant disagreements in theme identification occurred.

Results

A total of 64 individuals—48 patients and 16 healthcare professionals (HCPs)—showed interest in participating in the study, and 28 provided consent: 13 HCPs (Table 1) and 15 patients (Table 2). All patient participants were female and had been diagnosed with breast cancer within the past 6 months to 12 years. The patients had an average age of 57 years (SD 8.9), with 45% currently employed, 85% identifying as Caucasian, and 70% receiving treatment solely through public healthcare services. On average, they self-reported engaging in 190 minutes (SD 125.5) of physical activity per week. Among the HCPs, 92% were female, with professional experience spanning between three and twenty years. The group included two surgeons, six oncologists, and five cancer nurse specialists, representing multiple healthcare institutions.The themes identified were largely consistent between patients and HCPs, leading to a unified analysis of current clinical practices and perceptions regarding the incorporation of physical activity discussions into routine cancer care. Three overarching themes emerged (with 14 subthemes): current practice, implementation into care, and required training.

Theme 1: Current Practice

Minimal Guidance on Physical Activity

Both patients and HCPs displayed limited awareness of cancer-specific physical activity guidelines, and most patients did not recall being provided with information regarding the role of physical activity in managing cancer and its treatment (Table 3). The few who did recall such discussions had been treated through private healthcare services, while only three patients under public healthcare reported being asked about their physical activity levels by medical professionals.

Reactive Nature of Physical Activity Discussions

When physical activity was addressed by HCPs, it was typically in response to patient inquiries rather than as a proactive discussion. As one HCP described, conversations happened when the patient "initiates the topic" [HCP11], while another patient noted, "I had to be the one to push for it" [P01]. Some HCPs mentioned that they tended to discuss physical activity only with patients who already expressed an interest in exercise and sought reassurance about maintaining an active lifestyle during cancer treatment. A common reason cited by HCPs for not proactively discussing physical activity was the lack of available resources or structured support: "Bringing it up without being able to offer concrete guidance just makes us feel like we're pointing out a problem without a solution"

Perceived Benefits of Physical Activity in Public Healthcare

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Patients generally recognized the general benefits of physical activity for overall health, though few demonstrated awareness of its specific impact on cancer-related outcomes. Most referenced its positive effects on mental well-being, fatigue management, and sleep quality

Perceived Benefits in Private Healthcare

Among the subset of patients (n=6) who received treatment privately, physical activity guidance was more readily provided by healthcare professionals. These patients received structured recommendations and practical support to stay active throughout their treatment. Unlike their public healthcare counterparts, patients in private care referenced research on the role of physical activity in improving long-term health outcomes, including reduced recurrence risk.

Theme 2: Implementation of Care

This theme explores the key factors necessary for the effective integration of regular discussions about medication adherence within home healthcare for older patients with multimorbidity. Seven subthemes emerged from the data analysis: (1) digital resources, (2) home-based adherence strategies, (3) credible sources, (4) personalized approach, (5) shifting perceptions, (6) frequency and timing of discussions, and (7) social support.

Digital Resources

Older patients often experience information overload during medical consultations, making it essential to provide them with easily accessible resources they can review at their own pace.

Home-Based Adherence Strategies

Participants from both groups emphasized the importance of flexible, home-based approaches to medication adherence. Older adults often have mobility limitations or frequent medical appointments, making structured or supervised adherence programs less practical. They preferred strategies that could be easily incorporated into their daily routines.

Credible Sources

Patients expressed a strong preference for receiving adherence guidance from a trusted source

Personalized Approach

Patients and HCPs emphasized the importance of tailoring medication adherence strategies to individual needs rather than adopting a one-size-fits-all approach.

Shifting Perceptions

Many older patients face well-meaning but counterproductive attitudes from family members who encourage rest rather than adherence to prescribed treatments.

Frequency and Timing of Discussions

Both patients and HCPs emphasized the need for repeated discussions about medication adherence throughout the treatment journey.

Social Support

Patients highlighted the value of peer support in fostering adherence.

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Theme 3: Training for Healthcare Professionals

Analysis of HCP interviews identified the need for additional training to enhance their ability to discuss medication adherence within home healthcare settings. Four subthemes emerged: (1) demand for training, (2) access to evidence-based materials, (3) clear guidance, and (4) preferred training delivery methods.

Demand for Training

HCPs expressed interest in structured training programs to improve their confidence in discussing adherence with older patients.

Access to Evidence-Based Materials

HCPs requested access to well-researched materials to support their conversations about medication adherence.

Clear Guidance

HCPs highlighted the need for clear recommendations on discussing adherence, including appropriate language and strategies.

Preferred Training Delivery Methods

There was a strong preference for flexible, remote training options over in-person sessions.

Discussion

This research offers valuable insights and practical recommendations for incorporating physical activity into the care pathway for individuals undergoing treatment for breast cancer. The findings highlight that physical activity is not systematically discussed with all patients receiving breast cancer treatment. Healthcare professionals (HCPs) exhibit hesitancy in initiating conversations about physical activity, although they express confidence in promoting it if they receive proper training and access to well-structured, evidence-based materials. Both HCPs and patients voiced concerns about the feasibility and safety of participating in structured exercise programs at public fitness centers, favoring self-directed, home-based physical activity instead.

A significant number of both patients and HCPs in this study were unfamiliar with the recommended physical activity guidelines for individuals diagnosed with cancer, and such guidelines were not consistently addressed during medical consultations. Discussions regarding physical activity occurred on a case-by-case basis, leading to missed opportunities for providing essential support to physically inactive breast cancer patients who could benefit the most from tailored interventions [22]. Considering the common side effects of cancer treatment and the fact that the majority of breast cancer cases are diagnosed in women over the age of 50, it is crucial to encourage engagement in strength-based physical activity twice per week, as recommended, to lower the risk of osteoporosis and maintain muscle mass [5, 23, 24]. Additionally, the study revealed that patients who received information about the benefits of physical activity were primarily those under private healthcare, raising concerns about disparities in access to health-promoting guidance. Ensuring that all patients receive clear and accessible information about the benefits of physical activity is essential in addressing health inequalities and reducing the likelihood of cancer recurrence.

HCPs were reluctant to initiate discussions about physical activity due to a lack of sufficient knowledge and supporting materials. Participants echoed barriers to promoting physical activity in oncology care that have

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been reported in previous research [14, 17, 18]. However, both HCPs and patients acknowledged the importance of incorporating discussions on physical activity into cancer treatment to enhance overall health outcomes. These findings reinforce the importance of integrating physical activity into standard oncology care, aligning with recommendations from the American College of Sports Medicine (ACSM) [5]. Given that oncology professionals are viewed as trusted sources of health information, their role in encouraging physical activity among patients is critical.

HCPs in this study agreed that all breast cancer patients could engage in some form of physical activity and recognized that even small, incremental bouts of movement could be beneficial, particularly for those who are the least active. This perspective aligns with current recommendations from the World Health Organization (WHO) [25]. Furthermore, HCPs suggested that promoting physical activity does not necessarily require a preliminary assessment, indicating that such discussions could be seamlessly incorporated into routine care. Consistent with prior research, brief yet repeated interactions with HCPs were regarded as key to encouraging behavior change without overwhelming patients with excessive information at once [26].

While previous studies have identified limited consultation time as a major challenge in integrating physical activity promotion [14], HCPs in this study did not emphasize time constraints as a significant barrier. Instead, they highlighted the value of using brief, efficient strategies, such as referring patients to digital tools like mobile applications that provide evidence-based exercise resources. These self-guided resources were considered beneficial as they require minimal input from healthcare providers while still supporting patients in managing their own physical activity. Participants preferred self-managed, home-based exercise options, citing advantages such as flexibility, the ability to exercise without body-image concerns, and a reduced risk of infection from public gym environments.

As seen in previous studies, most HCPs in this research were unaware of physical activity guidelines specifically designed for cancer patients. Consequently, they emphasized the need for training programs that provide practical knowledge and remote resources to help facilitate appropriate referrals and recommendations for physical activity. HCPs expressed interest in flexible, online training modules that would enhance their ability to incorporate physical activity guidance into routine patient care.

Conclusion

Although HCPs involved in cancer care are often hesitant to discuss physical activity, patients expressed a willingness to engage in such conversations. Providing HCPs with relevant education, along with access to low-cost, evidence-based, and remote interventions, would facilitate the integration of physical activity promotion into routine breast cancer care. This, in turn, has the potential to enhance treatment outcomes and reduce the risk of cancer recurrence.

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