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Perspectives on physical therapy in advanced cancer care from those who give, receive, and refer: a qualitative interview study

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Abstract

Purpose

Physical therapy (PT) can improve mobility, symptom relief, and quality of life (QoL) in advanced cancer, yet remains underused. Little is known about the barriers and facilitators influencing patients' engagement in PT, physicians' referral decisions, and physical therapists' delivery of care. The aim is therefore to explore barriers and facilitators influencing the integration of PT in advanced cancer care, specifically shaping patient engagement, physician referral behavior, and physical therapists' delivery of care.

Methods

Qualitative study using semi-structured, face-to-face interviews. Data were analyzed inductively using the Framework Method. Interviews were conducted in hospital, nursing home, and primary care settings in Brussels and Flanders, Belgium. Using purposive and snowball sampling, we included adults with advanced cancer, physicians (oncologists and General Practitioners (GPs)), and physical therapists.

Results

Thirty interviews (10 patients, 10 physicians, 10 physical therapists) identified barriers and facilitators shaping PT engagement, referral, and delivery. Patients' engagement was influenced by symptoms, perceived benefits, coping style, social support, and awareness of PT's role and reimbursement. Physicians' referrals depended on knowledge of PT indications, local providers, procedures, and outcome expectations. Physical therapists' delivery was shaped by oncology-specific knowledge, confidence, attitudes, and organizational support. Many factors operated at individual and environmental levels, with misalignment across the three groups limiting integration.

Conclusion

A combination of behavioral factors influences the integration of PT in advanced cancer care. This highlights the need for multilevel strategies targeting knowledge, roles, communication, and system structures to improve PT integration in advanced cancer care.

Introduction

Advanced cancer care can be a comprehensive approach to address the complex needs of patients with advanced cancer. In this context, advanced cancer care is defined as a holistic, person-centered approach aimed at relieving suffering and supporting both patients and their families. It encompasses

services such as pain management, psychosocial, nutritional, and physical support, essentially aligning with the principles of palliative care [1–3].

Physical therapy (PT) is an important component of advanced cancer care, offering benefits such as improved mobility, pain relief, and enhanced psychological well-being [4, 5]. Patients who participate in exercise programs, for example, report improved Quality of Life (QoL) and a renewed sense of purpose [6, 7]. However, despite growing evidence for the effectiveness of PT in advanced cancer care, it remains underutilized [3–5, 8–12]. Barriers across patients, providers, and the system hinder the integration of this service into routine care [12, 13].

At the patient level, barriers include symptom burden, comorbidities, and practical issues such as transportation and time constraints, as well as misconceptions, for example, assuming daily activities provide sufficient physical activity (PA) [14]. At the provider level, gradually developing functional decline is often under-recognized, partly because some clinicians prioritize tumor-directed treatment and may underestimate the relevance of functional impairments [12]. Furthermore, knowledge gaps regarding the role and benefits of PT limit timely referral and integration into oncology care [12, 13]. At the system level, the lack of tailored programs, administrative burden, and insufficient interprofessional collaboration hinder integration [12, 13].

Despite these challenges, opportunities exist at all levels. Patients benefit from psychosocial support, personalized goal setting, and positive attitudes towards PA [12, 13]. Providers can leverage multidisciplinary collaboration to identify functional problems earlier and embed PT more effectively in care pathways [12, 13]. At the system level, better coordination and more integrated pathways can facilitate the routine incorporation of PT into oncology care [12, 13].

Most of the studies on barriers and facilitators related to PT in advanced cancer care have focused on single perspectives, have been restricted to one specific modality (most often exercise programs), and/or have examined general experiences rather than behaviors and their underlying factors, making it difficult to realize differences in practice or engagement [7, 14–19]. These limitations constrain our understanding of how PT can be effectively integrated into oncology care.

This study addresses these gaps by combining three elements: (1) a multiperspective design including patients, physicians, and physical therapists; (2) consideration of PT in its full scope (from exercise and functional rehabilitation to pain, lymphedema, breathing, comfort, and psychosocial support) [4, 5, 20]; and (3) a behavioral focus on patient engagement, physician referral, and PT delivery, providing actionable insights for implementation. Understanding these behaviors is crucial, as successful PT integration in advanced cancer care relies on sustained behavior change shaped by attitudes, perceived barriers, self-efficacy, and environmental factors [21].

Accordingly, this study aimed to identify perceived barriers and facilitators influencing these key behaviors and, by comparing perspectives across patients, physicians, and physical therapists, to

uncover convergences and divergences that can inform targeted strategies to enhance PT referral, uptake, and delivery.

Methods

Design

A qualitative study was conducted using semi-structured, face-to-face interviews, to gather in-depth information. The criteria for reporting qualitative research in the COREQ guidelines were used [22]. The study was approved by the Medical Ethics Committee of the UZ Brussel (University Hospital of Brussels) (BUN/registration number: 1432025000026) and was conducted in accordance with the Declaration of Helsinki.

Setting & Participants

Patients, physical therapists and physicians (i.e., oncologists and general practitioners (GPs)) were recruited via hospitals, nursing homes and primary care settings in Flanders, Belgium. Table 1 provides the inclusion and exclusion criteria for each group.

Table 1
In- and exclusion criteria

Stakeholder group	Inclusion criteria	Exclusion criteria
Patients	• Adults (≥ 18 years) with advanced cancer, regardless the primary tumor, requiring systemic anticancer therapy (antihormonal therapy, targeted therapy, immunotherapy, chemotherapy or combinations) • Have or have not yet received PT as part of their advanced cancer care • Proficient in Dutch	• Patients without advanced cancer • Cognitive, emotional or communication difficulties that, in the judgment of the treating physician, would make a semi-structured interview impossible or substantially more difficult.
Physical therapists	• Physical therapists providing care to patients with advanced cancer • Working in a hospital setting, nursing home and/or independent PT practice • Proficient in Dutch	• Physical therapists not providing care to patients with advanced cancer
Physicians	• Physicians providing care to patients with advanced cancer • Working as an oncologist or GP • Proficient in Dutch	• Physicians not providing care to patients with advanced cancer
PT: Physical Therapy, GP: General Practitioner		

By including patients requiring systemic anticancer therapy, we aimed to capture individuals confronted with advanced cancer and actively engaged in complex oncological care pathways where PT integration is highly feasible. Systemic treatment typically involves close multidisciplinary follow-up, regular clinical contact, and dynamic changes in functional status.

Sampling & recruitment

Participants were recruited through purposive and snowball sampling to ensure heterogeneous groups *(*Table 1*).* Patients were identified via physicians at UZ Brussel, who informed eligible patients and, with consent, forwarded their contact details to the researcher (LG), who then arranged interviews directly. Physical therapists and physicians were approached through institutional networks and professional associations via mailings, events, and public contact lists. All participants received detailed study information, provided consent, and were invited to recommend other potential participants.

Data collection & procedure

Individual interviews were conducted at the participant's preferred location to ensure patient comfort when discussing advanced cancer care and to reduce the time burden on healthcare providers. Data were collected between March and July 2025 by LG.

Prior to the interview, participants completed a short survey on sociodemographic, clinical, and professional characteristics. Patients reported age, sex, cancer type and stage, and PT use, while physical therapists and physicians provided information on work setting, role, education, and experience with advanced cancer patients.

A semi-structured interview guide for each stakeholder group was developed by a multidisciplinary team with expertise in oncology care (LD), oncological rehabilitation and PT (NA), oncology and palliative care research (AS & KB), behavioral change (AS, KB & TD), and qualitative research (AS, KB & TD). The topic guides were added as *Supplementary Material (***Appendix 1–3**). All interviews were audio-recorded.

Data analysis

Data collection and analysis occurred iteratively, meaning that preliminary analysis of the first interviews informed subsequent interviews. Recordings were transcribed verbatim by the primary researcher (LG) and analyzed using the Framework Method [23], a systematic approach that enables coding, charting, and comparison of data across cases and themes while preserving individual context. It is particularly suitable for examining and contrasting perspectives across different participant groups. Analysis was supported by MAXQDA Plus 24 software [24].

An inductive-first approach was used, allowing context-specific factors and participants' perspectives to emerge freely, without being constrained by a predefined model. Codes were subsequently linked to relevant constructs from behavioral theories to facilitate conceptual clarity, as outlined in *Appendix 4* [18, 21, 25–28]. Coding was refined in consultation with the multidisciplinary expert team to ensure rigor. To enhance the credibility and comprehensiveness of the findings, data triangulation was conducted across the three participant groups, allowing trends and discrepancies between perspectives to be identified and providing a more nuanced understanding of the factors influencing PT integration. Data saturation was monitored throughout the study and was reached after 27 interviews, with three additional interviews confirming that no new factors emerged.

Results

The study included 30 participants: 10 patients, 10 physical therapists, and 10 physicians (6 oncologists, 4 GPs – see Table 2). Almost all patients had stage IV disease (n = 9/10) and predominantly lung cancer (n = 7/10). Half were currently receiving PT (n = 5/10). Half of the GPs were LEIF-trained- or CRA-physicians (n = 2/4). Physical therapists were mainly female (n = 8/10), worked across private practice (n = 7/10), hospitals (n = 3/10), or nursing homes (n = 3/10), and three (n = 3/10) received no additional oncology or palliative care training.

Table 2
Characteristics of participants (N = 30)

Characteristics	**Patients (n = 10)**	**Physicians (n = 10)**	**Physical therapists (n = 10)**
Age *(years)*			
21–40	0	5	5
41–60	3	4	5
61–80	6	1	0
81–100	1	0	0
Sex			
Male	5	2	2
Female	5	8	8
Primary tumor			
Lung cell carcinoma	7	N/A	N/A
Mesothelioma	1	N/A	N/A
Renal cell carcinoma	2	N/A	N/A
Metastasis *(multiple answers possible)*			
Bone	5	N/A	N/A
Lung	4	N/A	N/A
Pleural	3	N/A	N/A
Brain	1	N/A	N/A
Pericardial	1	N/A	N/A
Adrenal	1	N/A	N/A
Cancer stage			
IIIB	1	N/A	N/A
IV	9	N/A	N/A
PT treatment			
Currently treated by a physical therapist	5	N/A	N/A
Physician type + specialization			
GP	N/A	4	N/A

Characteristics	Patients (n = 10)	Physicians (n = 10)	Physical therapists (n = 10)
- LEIF-trained- and/or CRA physician	N/A	2	N/A
Medical oncologist	N/A	6	N/A
PT setting *(multiple answers possible)*			
Private practice	N/A	N/A	7
Nursing home	N/A	N/A	3
Hospital	N/A	N/A	3
- Outpatient rehabilitation service	N/A	N/A	2
- Inpatient rehabilitation service	N/A	N/A	1
Specialized training *(multiple answers possible)*			
Master training in internal disorders	N/A	N/A	1
Postgraduate training in oncology	N/A	N/A	5
Postgraduate training in palliative care	N/A	N/A	1
No extra training in palliative care and/or oncology	N/A	N/A	3
Professional experience *(years)*			
0–5	N/A	3	5
6–20	N/A	4	2
21–30	N/A	3	3

Below, the results from the interviews are presented according to key behaviors, starting with (1) patient engagement, followed by (2) physician referral, and finally (3) physical therapist treatment. Within each behavior, non-modifiable and modifiable behavioral factors are distinguished. Most of the factors were found to act in a bidirectional manner (e.g., knowledge), where they could be both facilitating (e.g., adequate knowledge) and hindering the behavior (e.g., lack of knowledge). Moreover, they could be identified at both the individual-level (e.g., awareness) and the (perceived) environmental-level (e.g., social influence).

Overall, barriers predominated, often limiting engagement, referral, or treatment. *Appendices 6, 8–9 & 11* present all identified facilitating and hindering factors for each behavior. For each group, a behavior framework was also developed, summarizing the modifiable factors influencing PT engagement, referral, or delivery. These frameworks, shown in Figs. 1–3, offer a clear visual synthesis of the key individual and environmental factors shaping behavior and supporting the integration of PT into advanced oncology care.

In the quotes, references to participants are presented in an anonymized manner, as detailed in *Appendices 5, 7 & 10*.

Patients' PT engagement

Patients' engagement in PT was influenced by both non-modifiable and modifiable factors. **Non-modifiable factors** included pre-diagnosis PA levels, personality and coping style, language, previous PT experiences, and disease-related aspects such as symptom burden.

Modifiable behavioral factors existed at individual and environmental levels. Individually, these included knowledge, awareness, attitude, perceived control, and risk perception.

Patients who understood their illness and its functional impact valued PT more, while limited insight or uncertainty (e.g., about reimbursement) reduced motivation.

In my case, I don't know what PT can do. It has nothing to do with muscles or joints.

(Patient F)

Awareness of physical decline similarly encouraged engagement, while denying or underestimating needs hindered it.

[Patient suffers from dyspnea and muscle weakness] If you have muscle pain or something like that... Then you might be able to do some exercises with a physio. But...for now, I don't really see the point."

(Patient F)

Attitudes and expectations shaped whether PT felt meaningful or futile. Expected benefits (symptom relief, improved breathing, pain reduction, maintaining independence) supported engagement, while low expected benefits or perceived burden discouraged it. Motivation came from preserving autonomy or continuing valued activities, whereas high symptom burden, fear of discomfort, or preferring independent exercise reduced involvement.

It was really helpful. Thinking back to how they had to carry me, wash me, and help me with everything in the hospital… I couldn't do anything. So, being independent again means everything to me.

(Patient A)

Perceived behavioral control interacted with risk perception: symptoms had to be burdensome enough to trigger action, but not so overwhelming that participation felt impossible.

Interviewer: “Can you do what you used to do, movement-wise?”

Patient: “Yes, except walking for a long time.”

Interviewer: “And you don’t want guidance?”

Patient: “No.”

(Patient G)

Environmentally, social influence, norms, and practical factors shaped behavior. Support from family and providers, trust in the PT, and perceived competence facilitated engagement, while fears of burdening others or beliefs that PT is futile at the end of life hindered it.

But I’ve always said I don’t want to be the ‘babbling brook’ - someone who burdens others.” [Starts crying] “I don’t want my family to see me becoming someone who can’t do anything anymore… just lying there, waiting to die.

(Patient D)

Practical aspects like access, flexible timing, insurance coverage, and safe environments enabled participation, whereas transport difficulties, unclear referral pathways, and limited multidisciplinary communication hindered it.

So I thought it would be very useful to continue PT in the hospital. And also, because it's not too far away for me.

(Patient I)

A detailed overview of all behavioral factors, modifiable and non-modifiable, is provided in *Appendix 6*.

Physicians’ PT referral

The only identified **non-modifiable factor** in the physicians’ group was their prior exposure to PT, which shaped their general orientation toward referral but cannot be altered directly.

Modifiable factors included physicians’ knowledge of PT content, providers, reimbursement, and referral procedures; awareness of indications and contraindications; attitudes and outcome expectations; perceived behavioral control; and risk perception. Environmental factors, such as social influence, norms, and organizational aspects, also shaped referrals.

Physicians familiar with treatment options and local PTs were more likely to refer, whereas uncertainty about PT scope or documentation acted as a barrier.

During intensive cancer treatment, I honestly don’t know what PT can offer.

(Physician B)

Likewise, referral was facilitated when physicians recognized appropriate indications, including psychosocial benefits, while limited awareness of prevention of muscle loss, or end-of-life possibilities reduced referral activity.

If their mobility worsens after a complication, they lose independence or have issues like back problems or polyneuropathy that make walking difficult. These are common reasons why patients ask for help themselves.

(Physician D)

Attitudes and expectations influenced referrals: physicians guided by evidence and anticipated patient benefits referred more readily, whereas prioritizing medical treatments, frailty concerns, or underestimating PT's value hindered referrals.

That study showed it's clearly effective for fatigue and pain, so we should certainly consider referring them.

(Physician J)

Perceived behavioral control further influenced behavior: confidence in advocating for PA and initiating referrals supported action, whereas uncertainty in referring or time issues constrained it.

I do think that we as doctors should mention it more often. But you have so much to think about during a consultation, you often forget other things.

(Physician B)

Environmental factors influenced referrals: support from colleagues and motivated patients facilitated them, while poor communication, low prioritization of PT, and doubts about therapist competence hindered them.

He [the physical therapist responsible for outpatient oncological rehabilitation of the hospital] has certainly been to our staff meeting twice already to encourage us to refer.

(Physician D)

Systemic and organizational factors affected referrals: efficient systems, tools, and coordinated networks facilitated them, while fragmented documentation, absent pathways, time pressure, and inconsistent structures hindered referrals.

We often don't see people for quite a long time. And so, they end up seeing specialists, getting caught up in the oncological care pathway. And because of that, we often lose track of them for a whole period and don't refer them in the end.

(Physician E)

Moreover, *Appendices 8 and 9* provide an overview of all reported barriers and facilitators by oncologists and GPs.

Physical therapists' treatment delivery

During the physical therapist interviews, the only **non-modifiable factor** identified was prior exposure to oncology or palliative care, which influenced motivation, confidence, and familiarity, but cannot be changed through intervention.

Key individual **modifiable factors** included oncology-specific knowledge, awareness of safety precautions, understanding of reimbursement, and recognition of professional limits. Attitudes toward caring for advanced cancer patients and perceived control in treatment and communication also shaped practice, alongside social influence, norms, and organizational factors.

Physical therapists with strong oncology knowledge and awareness of safety precautions felt better equipped to provide safe, adapted care. In contrast, gaps in training, limited awareness of red flags, uncertainty about reimbursement, or unfamiliar cases reduced confidence.

A patient came in with a trapezius syndrome diagnosis and was receiving chemotherapy. When her pain became extreme, a local GP advised spinal manipulation, but I refused because it didn't feel safe given her treatment and symptoms. We referred her urgently, imaging was done, and a vertebral metastasis was found. I'm very glad I didn't follow that instruction.

(Physical therapist A)

Attitudes played a central role. Many viewed this work as meaningful, expecting benefits in pain relief, function, psychosocial support, and QoL, while emotional strain or perceived limited benefit in advanced stages could reduce engagement.

When someone is diagnosed with cancer, their world collapses. The relationship is very different from treating a sports injury. The mental aspects are crucial. I make it my mission to ensure they feel well cared for right up until the end.

(Physical therapist C)

Perceived behavioral control influenced practice: those confident in managing complex conditions delivered care more consistently, whereas others hesitated with metastases, comorbidities, limited patient information, or weak interprofessional communication.

"The most difficult patients for me are those with brain tumors, because they often have severe cognitive and communication problems. Some can be unpredictable, disinhibited, or even aggressive. This makes working with them very challenging and uncomfortable."

(Physical therapist E)

Social influence also shaped behavior. Appreciation from patients, families, and colleagues reinforced involvement, while perceived undervaluing of contributions could be discouraging.

It's motivating when patients tell me that their GP agrees with my advice. Hearing that indirectly reinforces my confidence and keeps me motivated.

(Physical therapist H)

Social norms concerning the timing of PT when deemed "appropriate", limited proactive referral in community settings, and culturally embedded fatalism (e.g., the belief that functional decline is inevitable) sometimes restricted timely involvement.

Especially with women with breast cancer, preventive (lymphedema) PT is possible. Yet, many doctors only refer once a problem arises, which was frustrating.

(Physical therapist C)

Practical and organizational factors, supportive environments, clear referral pathways, multidisciplinary meetings, reimbursement, and flexible scheduling, facilitated delivery, while treatment disruptions, staff shortages, unpaid work, language/mobility issues, and insufficient policies posed challenges.

If there were more structure, rather than everyone doing their own thing, there would likely be better communication and coordination. A clear framework would provide something to rely on.

(Physical therapist D)

Appendix 11 summarizes all identified facilitators and barriers.

Discussion

This qualitative study identified barriers and facilitators influencing the following behaviors contributing to the integration of PT in advanced cancer care: patient engagement, physician referral, and physical therapist delivery. Behavioral factors, including knowledge, awareness, attitude, perceived behavioral control, risk perception, (perceived) social influence, social norm, and practical, systemic, and organizational factors, were identified.

Interpretations of the main findings

Knowledge and awareness gaps regarding PT content, timing, and role were common across all groups, consistent with Cheville et al., showing that unclear referral pathways, limited physician knowledge, and patient unawareness delay rehabilitation [12, 14]. Professionals struggled to define PT's scope, while

patients often underestimated its potential beyond basic functional rehabilitation, aligning with prior findings that patient education and clinician encouragement are key facilitators [6, 7, 13, 14].

Social influence was ambivalent: support from colleagues or family facilitated engagement, whereas skepticism or negative judgment hindered it, echoing normative and system-level barriers [19]. Perceived roles differed: physical therapists emphasized functional, psychosocial, and emotional benefits, while physicians focused on physical outcomes [13]. Some GPs viewed palliative care as a reason to discontinue PT, reflecting misconceptions about its relevance in comfort-oriented care.

Cross-perceptions of barriers and facilitators between patients, physicians, and physical therapists revealed misaligned assumptions about motivations, responsibilities, and potential obstacles. Professionals often expected patient reluctance due to financial or motivational issues, which patients rarely reported, while physicians assumed motivated patients would seek PT independently, despite many relying on physician initiation. These misalignments hinder the timely integration of PT, extending prior work on role ambiguity and delayed referrals in advanced cancer care [12–14].

By mapping these hindering or facilitating behavioral factors across all stakeholder groups, our study provides a basis for defining desired behaviors that support PT integration, which can be targeted through evidence-informed behavior change strategies drawing on health promotion and end-of-life care research.

Behavioral perspectives, study contributions, strengths, and limitations

Given that behavioral theories are rarely applied to PT-related behaviors in advanced cancer care [21, 29], there is limited guidance on the most appropriate theoretical framework for this domain. Therefore, an inductive-first approach was adopted, allowing behavioral factors to emerge from the data. These empirically derived factors were subsequently organized into three behavioral frameworks *(*Fig. 1–3*)* and mapped onto constructs from established theories commonly used in end-of-life and palliative care research among the general public and professional carers, such as the Theory of Planned Behavior and the Health Belief Model [21, 29]. The frameworks include attitude, subjective norm, perceived behavioral control, awareness and risk perception, knowledge, social influence, and environmental factors [21, 25, 29–31].

Limitations include a sample largely comprising patients with advanced lung cancer, which may affect generalizability, although the sample was quite heterogeneous in terms of age, sex, and other characteristics reported in the patient demographics *(*Table 2*)*. Other limitations include the potential influence of the researchers' interpretations and background on the thematic analysis, and the focus on current practice settings, which in many cases reflect partial or delayed integration of PT.

Overall, by combining behavioral theory, multiperspective data, and cross-perception analysis, this study moves beyond descriptive accounts of barriers and facilitators, providing actionable insights for

designing interventions that are sensitive to the motivations and constraints of all stakeholders in advanced cancer care.

Practical implications

Our findings highlight the need for strategies to optimize PT in advanced cancer care. Education should address knowledge and awareness gaps, while strengthening multidisciplinary collaboration, clarifying roles, and structured referral pathways can improve care. Flexible treatment settings, telehealth, and psychosocial support may reduce organizational and emotional barriers.

Future research should use quantitative designs to examine associations between the identified factors and PT-related behaviors across diverse healthcare contexts. To ensure alignment with the needs and preferences of target populations, interventions targeting these behavioral factors should be co-created with patients and professionals and evaluated in pragmatic trials. Longitudinal and comparative studies with process evaluation can assess effects on patient outcomes and continuity of care.

Conclusion

Successful integration of PT in advanced cancer care depends on the combined efforts of patients, GPs, oncologists, and physical therapists. While all groups recognize its value, multiple factors can both hinder and facilitate referral and delivery. By identifying these factors, this study provides a foundation for designing interventions that target specific behavioral factors.

Declarations

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Author Contribution

Conceptualization, all authors; methodology, L.G., K.B., L.D., T.D., N.A., A.S.; formal analysis, L.G., A.S.; writing-original draft preparation, L.G.; writing-review and editing, all authors.; visualization, L.G.; supervision, K.B., L.D., T.D., N.A., A.S.; project administration, L.G.; funding acquisition, all authors. All authors have read and agreed to the published version of the manuscript.

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Data Availability

Raw data (interview transcripts) cannot be made available, as the information contained therein could compromise the privacy of the research participants and cannot be sufficiently de-identified. Summary findings are available within the article.

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Footnotes

1. Physician specialized in palliative and end-of-life care, trained by the Flemish LEIF (LevensEinde InformatieForum) program. The program is an initiative that trains and officially certifies physicians in this care. LEIF physicians receive education in ethics, legislation, and communication, and provide consultation to colleagues and guidance to patients and families on end-of-life decisions.
2. Coordinating and Consulting Physician (CRA): a physician affiliated with a nursing home responsible for coordinating and advising on care for all residents. In the context of palliative care, the CRA

supports the care team, guides decisions on comfort- and symptom-focused care, and ensures a coordinated, continuity-oriented approach to palliative care within the facility.

Figures

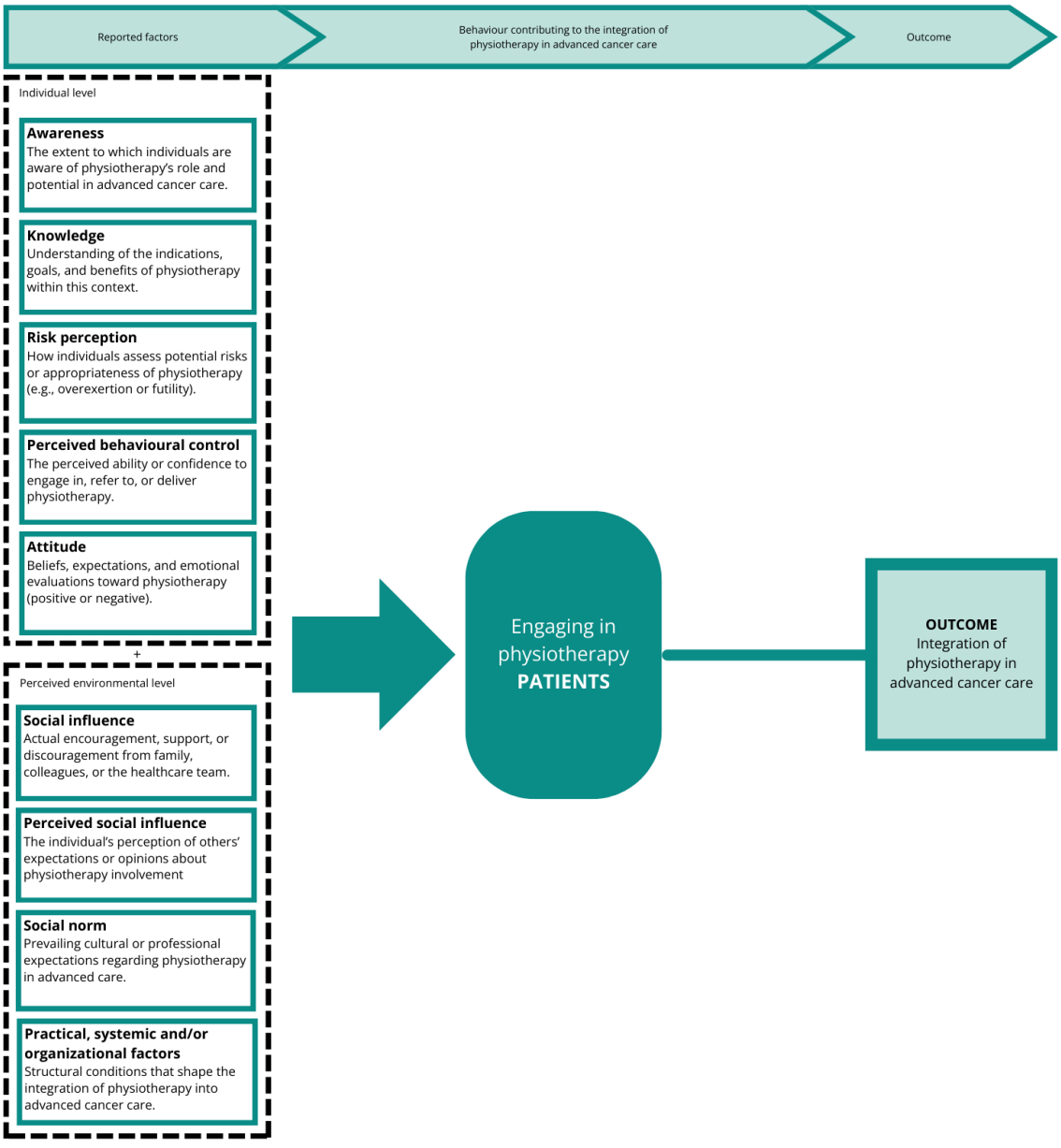

Figure 1

Factors influencing patient engagement

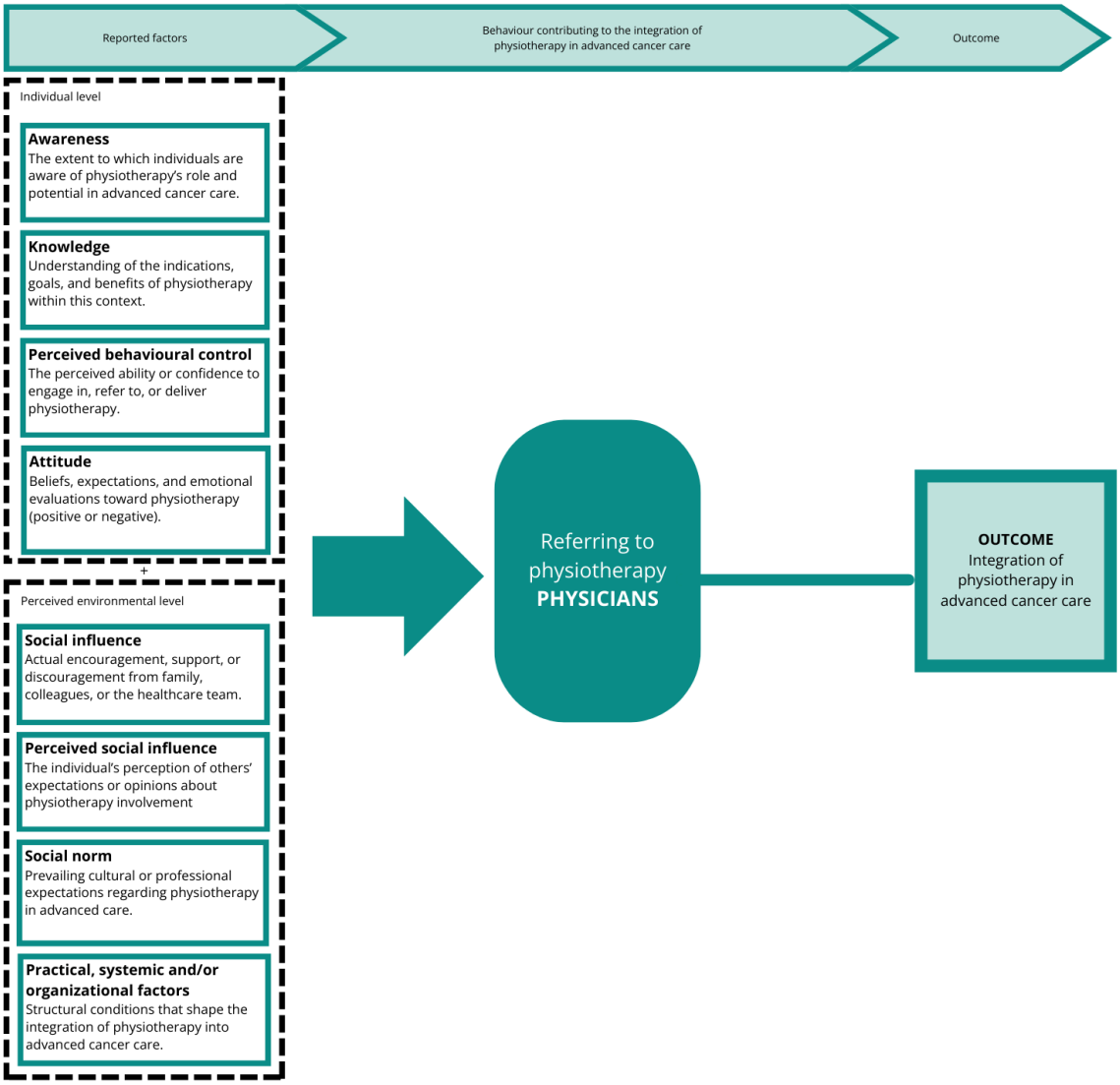

Figure 2

Factors influencing physician referral

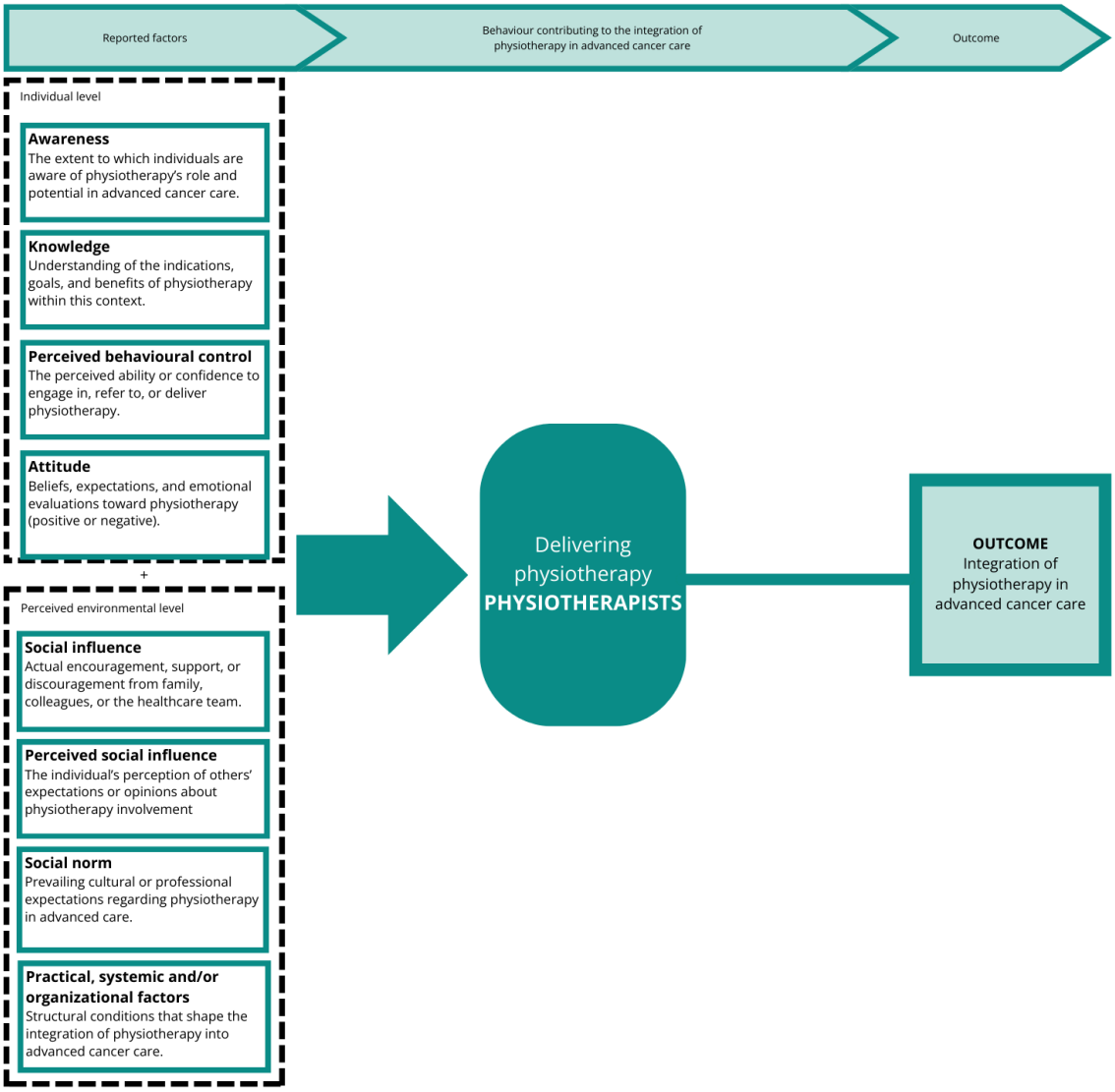

Figure 3

Factors influencing physical therapist treatment delivery

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