

Review Article

What is “Coaching” in Interventions for Patients in Cancer Care Research? A Systematic Scoping Review

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Objective: Cancer has an impact on psychosocial well-being as well as on mental health. Coaching increasingly appears as a source of psychosocial support to cancer patients. However, we currently lack a clear framework for coaching in that context. The present review aims to better define the concept of coaching in interventions for patients in cancer care research, as well as to synthesize frameworks, techniques, and providers.

Methods: A conceptual scoping review based on PRISMA was performed on studies focusing on coaching and cancer published in peer-reviewed journals until November 2024. Studies on coaching and cancer were systematically extracted from five online databases and then screened.

Results: A total of 237 studies were included after screening. Less than 15% of the studies provided an explicit definition of coaching. Six coaching categories were identified based on their goal, in addition to a general form of coaching. Coaching in cancer care occurs during the acute treatment phase as well as during the posttreatment phase. Most providers were healthcare professionals, despite an important heterogeneity. Techniques were sorted into 9 sets of techniques implemented in coaching interventions, including goal setting, providing support, and self-regulation.

Conclusions: This review provided structure to the field of coaching in cancer. It also showed that defining a field only on the word “coaching” does not appear sufficient to reflect the current heterogeneity. Consequently, there is a necessity for the field to clarify its theoretical frameworks, targets, and intervention components to increase the necessary reproducibility and cumulative knowledge.

Keywords: cancer care; coaching; conceptual review; mental health; psycho-oncology; psychosocial challenges; psychosocial support; scoping review

1. Introduction

Cancer, a group of diseases characterized by the rapid creation of abnormal cells that grow beyond their usual boundaries, is a potentially life-threatening disease with an increasing incidence [1]. Cancer patients' life expectancy is currently improving [2], but patients still face an important cognitive, emotional, and social burden [3]. Surviving patients also have to face different psychosocial

challenges, such as returning to work [4], adjusting to neurocognitive dysfunction [5], or fear of recurrence [6], while maintaining or adapting their identity [7]. Research is increasingly focusing on stepped-care approaches, to provide low- to mid-intensity psychological support to patients who do not need high-intensity support (with mixed results, see [8]). In the last two decades, a growing number of psycho-oncology studies and interventions have relied on “coaching” approaches and tools to provide

such (cost-)effective support to patients in addition to existing ones.

Initially, coaching was associated with work-oriented challenges and focused on supporting individuals to thrive in their work and address work-related issues [9]. It was meant as a task or attitude performed by the managers, “coaching” their employees. This approach of coaching quickly expanded to accompany self-defined goals in general, whether in the work context or outside of it. Subsequently, coaching was defined as a collaborative relationship that focuses on goal-setting designing solutions, or attainment processes [10]. It is about improving the achievement of self-congruent goals and promoting conscious self-change and self-development [11], as well as attaining better well-being using the individual’s resources [12]. In that context, coaches are seen as learning facilitators that support individual processes.

Such a definition encompasses several approaches and theories, each addressing different facets of human experience and behavior [13, 14]. Some of the most common forms are as follows: *executive coaching* focusing on performance and well-being enhancement at work [10]; *stress (self-) management coaching* to help individuals cope with their stress (inside and outside of work) [15, 16]; and *life (or personal) coaching* to improve the achievement of personal life goals [17]. In that regard, it can be considered as one operationalization of positive psychology, including through a focus on growth and change [18], as well as the reliance on techniques that originate from that field [19].

Yet, there appears to be no consensus on the definition, conceptualization, and operationalization of coaching as a field [11]. Moreover, it is acknowledged that coaching has no clear set of skills, training, or theories that would unify the practice behind the word [20]. This issue stems from the fact that coaching has organically and incrementally grown while being at the crossroads of several fields (e.g., behavioral sciences and organizational studies) [10]. Although often cited, coaching, however, remains an ambiguous field that requires structure. Several reviews have tried to provide such necessary structure in coaching, with various fortunes [10, 11, 21].

Coaching has also been applied to chronic diseases—including cancer—often under the label of “Health and Wellness Coaching” (HWC) [22]. HWC is a form of coaching targeting the improvement of health behaviors (e.g., physical activity and diet). Recent reviews on HWC have highlighted its potential for behavioral and psychosocial outcomes [22, 23]. However, HWC only reflects one delineated instance of “coaching” in cancer care, and numerous coaching studies in cancer were therefore not included, leaving them not fully understood and categorized. As such, cancer coaching studies targeting, for example, self-management [24], education [25], or motivational interviewing [26] are not yet included. This impairs a proper definition and delineation of coaching in the cancer context.

In a broader context of a hard-to-define field, coaching often flirts with pseudoscience and must therefore be well-defined, which includes an evaluation of coaching practices [27]. Because cancer coaching is expected to grow in the coming years, it appears therefore necessary to provide a framework for future practice, research, and evaluation in

the field. Therefore, the present work proposes to make a conceptual systematic exploration of what is referred to under the umbrella term of “coaching” in cancer care.

1.1. Objectives. The present review aims at structuring all literature that refers to itself as “cancer coaching.” The objectives of this scoping review are twofold. First, the goal is to list all studies that combine the labels of “cancer” and “coaching” to explore what definition was used for coaching in that context and see if categories or distinct fields of research can be defined. Second, and beyond the sole term of coaching, the goal is to list the techniques and modes of delivery in these studies, to have a comprehensive collection of what is currently performed. This would provide a necessary overview of how coaching is actually implemented.

2. Methods

The present study consists of a systematic scoping review [28] with specific attention given to a conceptual review of what “coaching” entails in cancer research [29]. This approach was chosen because it provides a framework to explore and structure existing research while accounting for its lack of current structure (impairing further exploration, e.g., meta-analysis of efficacy). The present work is therefore seen as a necessary step to establish a structure for future works and reviews.

The present review follows the PRISMA extension for scoping review [30].

2.1. Protocol and Registration. The protocol has been registered in the Open Science Framework (<https://osf.io/7yce4>). The sole deviation from the protocol was to not include the efficacy of the coaching and the quality assessment of each study in the present review. This was decided based on the large number of studies and their important heterogeneity which first requires structure before synthesis and in favor of a conceptual focus on the included studies.

2.2. Eligibility Criteria, Information Source, and Search. The focus was on studies that empirically associated cancer and coaching. Therefore, studies were included if they (1) address both “cancer” and “coaching” (as broadly defined above), (2) were empirical interventions on cancer patients, (3) were published in a peer-reviewed journal or book, and (4) were published in English, irrespective of their publication date or design (e.g., feasibility study, randomized control trial [RCT]). Studies were excluded if they addressed separately “coaching” and “cancer” and did not contribute to the understanding of their combination. Studies were also excluded if they did not focus on the treatment or the survival phase of cancer (e.g., focusing on cancer screening) or focused solely on sports coaching, as the present focus is on psychosocial coaching. Only studies where the patients were targets of the intervention were included (alone or with their informal caregivers or partners).

The studies were retrieved from five key online databases in the fields of medicine and psychology: Embase, PsycINFO, PubMed, Scopus, and Web of Science. As the objective was to synthesize published studies, no attempt was made to explore the grey literature. This extraction of online databases was performed in December 2022 (updated in November 2024) and focused on all available studies published until that moment. Keywords to retrieve studies are presented in Appendix 1. Previous existing reviews were hand-searched to identify additional references.

2.3. Selection of Sources of Evidence. Identified records were merged using EndNote, and duplicate records were removed using a deduplication method [31]. Using an online spreadsheet app, two researchers (P.G. and A.M.) each independently screened all titles and abstracts (yes/maybe and no) based on the inclusion criteria. Disagreement was solved through consensus. Full texts were screened by two reviewers (P.G. and A.M.). The update from 2024 was performed by the first author (P.G.). Following PRISMA recommendations, the reason for exclusion was only mentioned at the full-text stage.

2.4. Data Charting Process and Items. A data extraction spreadsheet was used to extract information on *study description; participants' characteristics; study design; study objectives; coaching approach; implementation of the coaching component; and coaching intervention*. Data extraction was shared by two authors (P.G. and A.M.).

2.5. Synthesis of Results. Based on existing recommendations in the reporting of scoping reviews, the results were synthesized narratively and with tables [28, 32]. A first synthesis focuses on the definition and approaches of cancer coaching. We regarded as a “definition” any statements or indications within the introduction and methods sections that elucidate the authors’ conceptual understanding of coaching, while deliberately excluding explicit descriptions of the coaching activities implemented in the intervention. These elements of definition were then thematically synthesized by exploring the common elements among the different studies, to build a synthesized definition. A second focuses on the content of the interventions. Given the large number of studies available, a two-step approach was used to organize the existing literature. In Step 1, studies were sorted based on how the authors labeled the coaching component in their paper to form a preliminary series of categories. Based on that first categorization, main group of studies could be identified, relying on the common target of these coaching approaches (e.g., on health behaviors and decision-making) rather than the providers (e.g., “nurse coaching” and “digital coaching”). In Step 2, uncategorized studies (i.e., studies that only mentioned “coaching” or “coaches,” as well as studies that did not fit with the definition of the category that was first assigned based on their label) were then assigned to one category to then refine and make sense of each of them. A thorough analysis then led to forming a definition of each

category. Following that, the components of the coaching interventions (e.g., providers, focus, and techniques) were synthesized for each coaching category based on cross-referencing elements of the extraction sheet.

To relate to existing frameworks in intervention techniques, the present study relied on the Behavior Change Technique (BCT) Ontology, which is a work that aims to unify definitions of all behavior change intervention components by providing a structured ontology (see [33]). It consists of a comprehensive framework of 20 higher level groups of BCTs, each with its identification code, wherein most (if not all) BCTs can be grouped. This ontology is part of a larger creation of complementary ontologies aiming at providing a clear structure to behavior change intervention studies to facilitate their comparison [34].

The synthesis was performed by the first author, with regular iterative reports, discussions, and adjustments made with the other coauthors to improve validity and clarity.

3. Results

At first, a total of 4267 studies were included from the different databases (see Figure 1). After duplicate screening, 2610 studies were excluded, followed by 1302 based on title and abstract screening. This left 355 studies for full-text screening, among which 119 were excluded and one included. This led to the inclusion of 237 studies in the present review.

Because of the high number of studies ($k = 237$), the summary of each study can be found in Appendix 2. Due to the journal’s constraints, not all studies could be cited directly in the text and only representative studies were therefore cited. Consequently, the exhaustive reference list of the studies included in the present review is displayed in Appendix 3.

Studies were mainly originating from English-speaking high-income countries (75.5%), i.e., 138 from the United States (58.2%), 18 from Australia (7.6%), 12 from Canada (5.1%), and 11 from the United Kingdom (4.6%). The rest mainly originated from continental Europe (15.6%) and East-Asian countries (8.0%). They mainly focused on adults (89.5%), the rest focusing on either children, adolescents, or young adults, or a combination. Most studies focused on various forms of cancers taken together (50.6%), whereas the rest focused on a specific form of cancer, among which the most common were breast cancer (23.6%), prostate cancer (5.1%), lung cancer (3.8%), and colorectal cancer (2.5%).

As per our inclusion criteria, the designs of the studies were heterogeneous, ranging from feasibility studies to RCTs (see Appendix 2). Forty-seven different labels were used to define the design of the included studies, the most common being RCT ($k = 103$, 43.5%), pilot study/trial/test/RCT ($k = 40$, 16.9%), and feasibility study ($k = 27$, 11.4%).

3.1. Definitions of Coaching. The first goal was to explore the definitions of coaching used in the included studies. Less than a fifth of the included studies ($k = 34$, 14.4%) provided

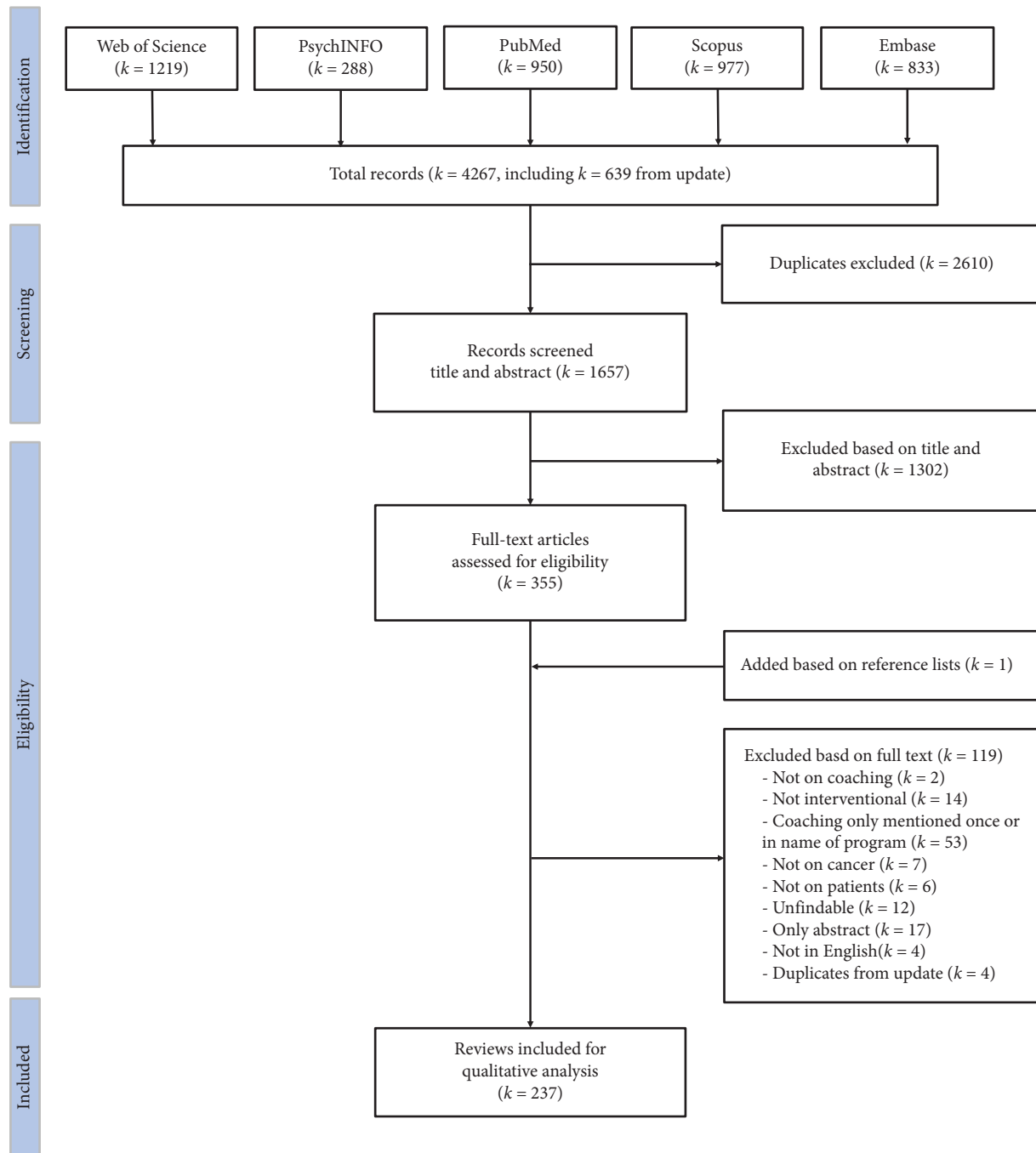


FIGURE 1: Flowchart of the inclusion process.

an explicit definition of coaching or mentioned a coaching framework in their work. Different elements mentioned in these definitions can be used to provide a synthesis of the definition provided.

Coaching appears as a patient-centered [35–37], individualized [38–44], relational, and dialectic [36, 37, 45–47] support [36, 38–40, 46–51] to cancer patients. Its final goal appears to be the improvement of the patient's wellness [36, 40, 45], well-being [37, 40, 50, 52], and quality of life [53], with a strong emphasis on increasing self-management [26, 35, 36, 43, 45, 52, 54, 55] and (self-) empowerment [35–37, 47, 50, 54, 56–60], as well as self-efficacy [35, 38, 50, 51, 54, 59] and self-confidence [59]. As such, coaching seems to be relying on goal-setting [36, 37, 47, 51, 61], goal achievement [35, 41, 51, 53, 59, 60], and the engagement in and maintenance of behavior change [35–38, 40, 42, 44, 45, 52, 55, 60, 62]. It is also seen as relying on motivational work [38, 40, 43, 60] and education [36, 49, 54], based on the patient's own resources [51, 59], strengths [37], and potential [53]. Regarding its theoretical anchorage, some authors support that coaching is evidence-based [43, 45] but mostly theory-based

empowerment [35–37, 47, 50, 54, 56–60], as well as self-efficacy [35, 38, 50, 51, 54, 59] and self-confidence [59]. As such, coaching seems to be relying on goal-setting [36, 37, 47, 51, 61], goal achievement [35, 41, 51, 53, 59, 60], and the engagement in and maintenance of behavior change [35–38, 40, 42, 44, 45, 52, 55, 60, 62]. It is also seen as relying on motivational work [38, 40, 43, 60] and education [36, 49, 54], based on the patient's own resources [51, 59], strengths [37], and potential [53]. Regarding its theoretical anchorage, some authors support that coaching is evidence-based [43, 45] but mostly theory-based

[26, 38, 41, 44, 51, 55, 62], notably by relying on socio-cognitive theory or the transtheoretical model of change. Finally, coaching is mentioned as being result-oriented [37], which can in certain cases facilitate the transition to postcancer life [39] or guarantee continuity during treatments [36]. The providers of coaching are often explicitly referred to as coaches [35–38, 40, 45, 47, 48, 53, 60, 61] and are seen as partners [49] who could be peers [56].

3.2. Categories of Coaching in Cancer. Table 1 displays the seven different categories of coaching that were identified based on the included studies (see Appendix 4 for the 20 original categories identified in Step 1). Six have specific targets and a seventh (i.e., General and Multifaceted Coaching) has a broader scope. The six specific categories of coaching interventions target, to different extents, a biopsychosocial challenge raised by the disease. One study was set aside from other studies, as the coaching component's main aim was to promote the participation of patients in clinical trials [63].

3.3. Integration of Coaching in Intervention Design. Although all studies needed to have a coaching component to be included in the present review, the centrality of the coaching component varied importantly. As such, it appears that most studies were coaching interventions ($k = 98$; 41%)—where coaching was the main or only component of the investigated intervention [64]; e.g., [26]—or part of multicomponent interventions studies ($k = 102$, 43%)—where coaching held equal importance to other components (e.g., accompanying an education module). In these studies, the coaching was therefore integrated alongside other components (e.g., alongside a nutritional intervention [65]; or in addition to an educational module [66]). The last set of studies consisted of studies where coaching was only present to support the main intervention of studies. This took two distinct forms, based on how studies were reported. The first was when “coaches” were the ones performing the intervention ($k = 6$; 3%), often with no clear specification as to why they were labeled as coaches (e.g., [67, 68]). The second consisted of studies where the coaching component was only there to support the main intervention ($k = 31$; 13%), notably to ensure compliance with the intervention or to solve problems encountered (e.g., problems with the online self-help platform [69]).

3.4. Coaching Intervention in the Cancer Continuum. The interventions focused on the different phases of treatments, with a balance between the acute phase of treatments and the after treatments. Appendix 5 displays in detail the interplay between the phases of treatment and the categories of coaching, and Figure 2 presents a visual summary. A large proportion of coaching studies focused on the acute phase of treatments when patients undergo active treatment ($k = 104$, 44%), including one study specifically on reoccurrence [70] and another on chronic leukemia [54]. The coaching approaches during treatments were mainly focusing on Self-

Management Coaching (34%), HWC (25%), and Communication and Decision Coaching (23%). Studies focusing on the period after main treatment were also frequent ($k = 108$, 46%), with studies focusing on cancer survivors, survivors with maintenance chemotherapy [71], and survivors in active surveillance [60]. Most of these posttreatment studies relied on HWC (57%), Mental Health and Wellbeing Coaching (13%), and General and Multifaceted Coaching (12%). A less frequent set of studies focused on more advanced and palliative ($k = 15$, 6%) forms of cancers, with a particular emphasis on Communication and Decision Coaching (33%), followed by General and Multifaceted Coaching (20%), Mental Health and Wellbeing Coaching (20%), and Self-Management Coaching (20%). Finally, a minor set of studies ($k = 10$, 4%) considered all kinds of cancer patients together.

3.5. Coaching Providers. Coaching in the included studies came from a variety of providers, including both professionals and nonprofessionals, trained and untrained individuals, and even automated or virtual systems (e.g., chatbot). However, most coaches came from a healthcare background ($k = 106$; 45%). This included nurses ($k = 54$, 23%), physiotherapists and physical therapists ($k = 10$, 4%), health educators ($k = 8$, 3%), occupational therapists ($k = 5$, 2%), psychologists ($k = 3$, 1%), dietitians ($k = 2$, 1%), or a combination of different healthcare professionals ($k = 22$, 9%). In several instances, the coaching was also provided by students ($k = 12$, 5%), mostly in training in medical professions. In some physical activity studies, the coaches were physical trainers ($k = 4$, 2%). Coaching was also performed by peers ($k = 16$, 7%) and informal caregivers ($k = 1$). The place of digital platforms providing coaching through apps, automated answer systems, or virtual agents was also nonnegligible ($k = 23$, 10%).

The rest of the studies were less clear. Coaching was performed by “coaches” in 26 studies (11%), often without clear specifications as to what was their initial training. The same issue was encountered when studies relied on research staff ($k = 10$; 4%) and laypersons ($k = 4$; 2%). In the last set of studies, it was either unclear ($k = 11$, 5%) or not mentioned ($k = 20$, 8%) who provided the coaching.

Appendix 6 displays the providers by the phases of the disease. Appendix 7 displays the providers by coaching categories.

3.6. Typology of Coaching Techniques. The last goal of the present review was to understand the techniques used in the coaching interventions.

In the included studies, an important variety of techniques are reported as part of the coaching components of the interventions. These techniques were inductively structured into 9 types displayed in Table 2. These 9 types of techniques are mainly focused on behavior change, from the initial phases of Education, Goal Setting, and building Motivation to Training and providing Feedback during their implementation. As mentioned, we refer to the BCT Ontology codes to integrate the present review in existing frameworks [33].

TABLE 1: Categories of coaching in cancer.

Category of coaching	Goal
Health and Wellness Coaching $k = 92$	Encourage and guide cancer patients toward healthier behaviors, with a major emphasis on increasing physical activity and improving dietary habits. Health coaching typically assists patients in identifying and pursuing behaviors that they themselves perceive as important for their well-being or that are defined as healthy
Self-Management Coaching $k = 49$	Empowering individuals to effectively manage their health conditions. It involves providing individuals with the tools and support necessary to take active control of their disease, as well as the side effects and consequences of treatments. It covers a wide array of aspects, including medication, fatigue, pain, or sexuality
Communication and Decision Coaching $k = 32$	Aiding patients in their cancer journey through enhanced decision-making and improved communication with healthcare professionals, including for advanced care planning - Decision Coaching: Empower patients and enable them to make informed decisions that best align with their individual circumstances and preferences - Communication Coaching: Enhance patient communication with healthcare providers (e.g., expressing concerns or worries, discussing symptoms, or communicating pain effectively). The objective is to help patients articulate their experiences and needs in a way that medical professionals can easily understand and address
Mental Health and Well-being Coaching $k = 27$	Supporting the mental well-being of patients, addressing issues like anxiety, depression, and fear of recurrence
General and Multifaceted Coaching $k = 26$	Not specifically target a single component of care but instead address a mix of physical, mental, and emotional health aspects. It reflects a more holistic approach of addressing patients' needs, sometimes including a personalized approach
Life Coaching $k = 6$	Supporting patients' overall growth based on their personal goals and needs. Using individual resources to meet challenges in their lives and increasing the self-confidence through the definition, pursuit, and attainment of self-selected goals [51]
Cognitive Coaching $k = 4$	Enhance cognitive abilities that might have been affected by cancer treatments (e.g., working memory, attention, processing speed, and executive function). It aims at maximizing the effectiveness of the cognitive training program and ensuring participants' engagement and progress

Note: One study did not fall into a category [63].

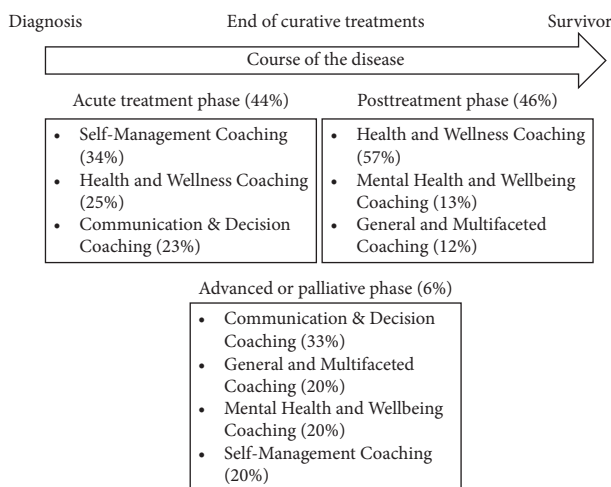


FIGURE 2: Coaching intervention in the cancer continuum. Note: 4% of studies considered all phases together.

The correspondence shows that most of the coaching techniques can, to some extent, be related to BCT, with 14 of the 20 groups of BCTs present in the included studies. A particular emphasis is put in the included studies on Barrier identification, Planning, and Problem-Solving. This type of

technique (which loosely relates to BCIO: 007001; 007090; 007168; 007150) appears to be at the core of coaching. It shows the importance of co-elaboration and collaboration in the coaching relationship to find an adequate solution tailored to the patient. The importance of that collaboration was often highlighted in the included studies as a key component. This also includes particular attention to support techniques, in providing emotional support, reassuring, and using active listening.

However, the overlap with the BCT Ontology is not complete. For example, the important work on motivation (e.g., motivational interviewing), even though tied to Goal Setting, holds central importance in coaching studies but is less explicitly included in the BCT Ontology. Self-Management & Monitoring, if tied to Monitoring BCT (BCIO: 007017) goes beyond it as it includes an important array of specific behaviors that are specific to diseases and cancer, notably through symptom and side-effect management (e.g., [72]), as well as how to ask for questions or help when necessary, based on the said monitoring (e.g., [43]).

One notable element to highlight regarding the techniques included is that most of them are used by the coach during the sessions with the patients, but these techniques can also be used by the patients outside of that setting. For example, Goal Setting through SMART goal definition can

TABLE 2: Typology of coaching techniques.

Type of techniques	Definition	Examples	Related Behavior Change Technique (BCT) Ontology groups
Goal setting	Techniques related to defining specific, measurable, achievable, relevant, and timely (SMART) targets. This involves setting behavioral objectives, formulating a plan of action, and discussing outcomes	- (Self-directed) goal setting - Decision making - Assisting with SMART (specific, measurable, attainable, relevant, and timely) goal-setting - Clarification of values and preferences - Alignment of expectations - Health goals discussions - Definitions of priorities	- Goal Directed BCT (BCIO: 007001) - Prompt focus on self-identity BCT (BCIO: 007157)
Barrier identification, planning, and Problem-solving	Techniques that focus on recognizing obstacles and devising solutions for overcoming them	- Identifying barriers and future challenges - Exploring options to overcome them - Plan for implementing solutions - Identification of facilitators - Activity scheduling - Action planning - Problem solving - Reinforcement schedules - Plan based on goals - Formation of implementation intention	- Goal Directed BCT (BCIO: 007001) - Associative learning BCT (BCIO: 007090) - Advise specific behaviour BCT (BCIO: 007168) - Restructure the environment BCT (BCIO: 007150)
Self-Management & Monitoring	Techniques centered around tracking and reviewing personal data or behaviors related to health, symptom, and side-effect management and being able to act accordingly in response	- Monitoring & discussing pain and analgesic side effects/fatigue - Assess adherence to treatment - Reviewing and ongoing of health behaviors - Self-monitoring - Identification of “Red Flags” for seeking help - Activity monitoring	- Monitoring BCT (BCIO: 007017) - Promote pharmacological support BCT (BCIO: 007144)
Motivation	Techniques that involve building a patient’s motivation to change or maintain health behaviors	- Motivational interviewing - Providing motivational messages - Exploration of their motivation to certain goals - Assessing motivational readiness - Identify benefits of performing the activity	
Self-regulation	Techniques used to develop better skills in self-regulation, including emotion and stress management in order to increase mental well-being	- ACT strategies - Positive self-talk - Mindfulness techniques - Coping, self-care - Stress management, cognitive restructuring, and meaning making - Stress-reduction strategies - Relaxation techniques	- Manage mental processes BCT (BCIO: 007185) - Advise how to change emotions BCT (BCIO: 007147)

TABLE 2: Continued.

Type of techniques	Definition	Examples	Related Behavior Change Technique (BCT) Ontology groups
Feedback & Reinforcement	Techniques focused on providing patients with constructive feedback on their performance and reinforcing progress made toward their health goals	- Feedback on how patients perform instructed behaviors - Encouragements - Reinforcing progresses - Checking the progression and how to adjust it better - Reviewing of self-care strategies	- Monitoring BCT (BCIO: 007017) - Prompt thinking related to successful performance BCT (BCIO: 007239)
Education	Techniques involving the sharing of knowledge and information to assist patients in understanding their health condition, its management, and its implications	- Psychoeducation - Teaching on stress/emotion management techniques - Information about the treatments and the disease - Answering questions	- Increase awareness of behaviour BCT (BCIO: 007173) - Increase awareness of consequences BCT (BCIO: 007062)
Support	Techniques that aim to foster a supportive relationship between the coach and the patient, providing encouragement, empathy, and guidance throughout the process	- Encouragement - Active listening - Availability/presence if needed - Building supportive relationship - Emotional support - Engagement warmth, empathy, and positive regard - Reassurance	- Social Support BCT (BCIO: 007028) - Prompt thinking related to successful performance BCT (BCIO: 007239)
Training	Techniques supporting the acquisition, understanding, and application of knowledge, skills, and competencies. Beyond simply providing patients with educational resources, it ensures teaching them how to use them, and guiding them in practicing the learned skills.	- Communication skills training - Training in setting realistic and achievable goals - Training on the use of a self-help platform/app - Training on assessing pain - Behavioral rehearsal and practice - Providing guidance and instructions (for meditation) - Providing supervised practices in question-asking	- Guide how to perform behaviour BCT (BCIO: 007050)

Note: The related BCT groups originate from Marques et al. [33] and are mentioned to relate to the gold-standard ontology of BTC.

span beyond the sole coaching moment and be used by patients in other contexts [69]. The self-regulation techniques, while used during the coaching sessions, are also aimed at being used outside of that setting [67].

4. Discussion

The present scoping review explored coaching in cancer to address the heterogeneity of the field and clarify what is coaching in cancer in interventional studies as well as to provide a framework for future studies and allow their meta-analysis. Consequently, this paper tried to clarify the definition of coaching, provide a categorization of the areas of coaching, structure the techniques that are often used in coaching, and provide a picture of the included interventions as to who provides coaching, the integration of the coaching component into the interventions, and the moments of the cancer journey during which the coaching is present.

The definition of coaching appears to be something often overlooked in the included studies. Less than 15% of the studies included a definition, and when doing so, there appears to be a wide variety of components that are included. This lack of clear framework and indicators that would allow replicability however relates to the broad coaching literature, which is hardly defined, even according to researchers in the field [13, 14]. With the available elements, we however tried to provide a unifying definition of coaching:

Coaching in cancer is a patient-centered, individualized, relational, and dialectic form of support aimed at enhancing the wellness, well-being, and quality of life of cancer patients. It focuses on goal-oriented (behavior) change to empower patients throughout their cancer journey. Subsequently, coaching can be seen as a facilitating process focusing on initiating, supporting, and consolidating change. The coaching process is geared toward working on patient's needs, by helping them clarify, define, and attain realistic goals, using their resources. Coaching may have various targets that are challenged by the disease, which include the improvement of health behaviors, self-management, communication and decision processes, mental health, or attainment of life goals. It can be a stand-alone intervention but can also be present to support other interventions or programs. Coaches are the providers of coaching and can be healthcare professionals, lay individuals, peers, or even digital tools. They rely on a vast array of techniques, including goal-setting, problem-solving, self-regulation and -management, education, and support.

This definition reflects the heterogeneity of the coaching field but also that it seems to be held together by common principles. The most common principle of coaching in cancer is the support of personal growth, empowerment, behavior change, and well-being through the activation and improvement of the patient's resources and skills, in various domains (e.g., health behaviors, self-management, communication, and decision-making). As such, coaching

probably seeks to provide support through an alternative to psychological support. This is also reflected by those who provided coaching in the included studies, where psychologists were rarely present. This observation echoes the works attempting to identify the boundary between coaching and mental health counseling practices, ending up pointing them on a continuum [73]. In that context, coaching interventions in cancer can be seen as first-line interventions that are "briefer, problem-focused and targeted at improving well-being in nonclinical populations." ([74], p. 288).

This seemingly clear definition must however not hide the fact that the included studies are highly heterogeneous on different intertwined levels. At this stage, the important variability in definitions, categories, techniques, and coaching providers interrogates the assumption that coaching can be considered as a unified concept and practice.

The difficulty in defining and clarifying what is coaching starts with the difficulty that the word "coaching" appears polysemous in the included studies. On the one side, we can observe research labeling itself as "coaching" research, relying on some form of coaching framework, provided by people defining themselves as coaches [13]. On the other side, we see various studies using "coaching" interchangeably with "support," suggesting a generic form of aid or assistance without a clear specific framework. In between the two, there were studies where "coaching" implies a certain structured form of patient support but still lacks a concrete definition or reference to a cohesive theoretical coaching framework (related to coaching research or not). This confusion underscores an urgent need for future research to articulate what is meant by "coaching" to distinguish between these varied uses. The implicit and undefined use of "coaching" by some authors—while not necessarily indicating a lack of theoretical underpinning for their study as a whole—contributes to an ambiguity that hinders the precise demarcation and evaluation of coaching in cancer care.

Seven categories of coaching approaches were identified through the present review, from the known HWC to more discrete instances, such as Cognitive Coaching. To provide a framework for future studies, we propose that these categories can be further structured around a continuum of patient-centered coaching interventions (see Figure 3). On the one end, coaching studies focus more on the challenges that the patients face due to the disease and its management, as well as the relationship with the healthcare professionals. On the other end, coaching studies focus more on the psychosocial challenges of the patients, which are linked to the disease, but not exclusive to it. In between, HWC studies focus on increasing the patients' physical recovery from the disease, but also increasing protective factors against potential reoccurrence (including stress management). This continuum structure provides the opportunity to consider that coaching interventions for cancer patients, while always patient-centered, have varying degrees of focus on the disease. The end of disease-focused coaching is tied to the disease while psychosocial-focused coaching can be related to the disease but could be implemented without the patient being ill.

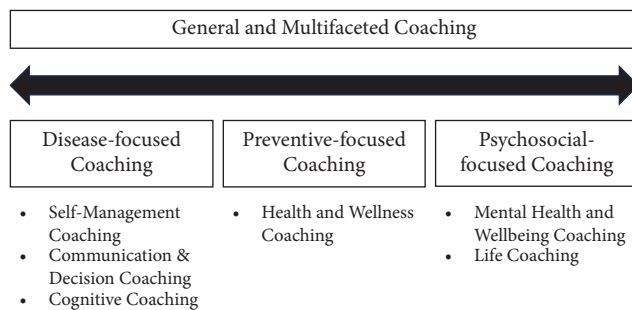


FIGURE 3: A continuum structure of types of cancer patient-centered coaching.

Beyond the sole label, we can identify that coaching is a set of techniques that a person can take to support behavior change. That behavior change lens combined with the important heterogeneity of BCTs included shows that coaching is a polymorph form of support. Consequently, the need for coaching interventions (and particularly in research) should be to clarify which BCTs they are based on. For now, this is not clear. The present review provided a structure to help future studies in reporting a clear(er) set of definitions of the BCTs included to help replicate coaching interventions and provide the opportunity to better assess their efficacy (and efficiency) [75]. Relating to existing frameworks of BCTs might also help in linking coaching research to broader research, and not focusing only on the coaching side of evidence.

The fact that coaching is performed by different kinds of individuals, from laypeople to healthcare professionals, also fuels the observation of heterogeneity in coaching and the necessity to clarify how coaching interventions are delivered [76]. However, the important place of healthcare professionals does suggest that the people providing coaching should have some form of adequate knowledge, understanding, and training that allows them to be close to the experience of the cancer patients. Such observation has been supported by a recent review on the training of healthcare professionals in health coaching, highlighting the benefits (and challenges) of healthcare professionals in providing coaching to patients [77].

A last observation is the striking absence of return to work in the present review. Only two included studies emphasized coaching to support return to work [41, 78]. Despite an increasing focus on research, policies, and practices, return to work remains a key issue in cancer survivorship, which calls for new approaches to address it [79, 80]. This is particularly necessary since existing evidence shows the limited to absent impact of existing interventions [4, 81]. In that context, coaching can play an important role, notably because it takes its roots in organizational contexts. As such, future studies could provide fruitful synergies using (return-to-)work-related tools adapted to the specificities of the cancer context to open new avenues of research.

4.1. Study Limitations. The present review did not focus on the efficacy of coaching interventions. Its main motive was to create a framework for coaching studies in the face of a too-heterogeneous field that lacks adequate categories to allow comparability and any cumulative approach [28]. Therefore,

it included all studies with interventional components, regardless of what they measured. Consequently, the present review does not conclude on the (in)effectiveness of coaching in cancer. Because of the qualitative nature of this summary and the significant number of studies included, other authors could also have produced a different framework than the one provided in the present paper, which reflects our reading of that field.

4.2. Clinical Implications. Cancer coaching as a “discipline” can hardly be summarized homogeneously. The categories of coaching displayed in Figure 2 provide a clear framework on how coaching can be implemented, based on the target. It should serve as a base for coaching intervention practices to call for a clear goal definition and a subsequent adapted requirement definition (e.g., having the necessary knowledge of the disease). The focus on types of techniques should also help define clearly what the coaching intervention implemented and the expected active component on which it relies. More broadly, the present review has shown the necessity to using the adequate label when creating a coaching intervention and to interrogate its theoretical underpinnings, as well as its potential overlap with psychological care.

5. Conclusion

The present work aimed at providing a framework for future studies in cancer coaching and a founding ground for them. The heterogeneity in the field, the challenges in defining coaching, the categorization of coaching, and the insights into techniques and approaches contribute to a complex but rich landscape. The direction for future research should involve a clearer use of the “coaching” word and what it entails, a closer examination of the underlying techniques used, and efforts to assess the efficacy of coaching in various contexts. It underscores the need for clarity, structure, and collaboration within the field to build upon this foundational understanding and create meaningful coaching interventions for cancer patients.

Data Availability Statement

All available information is present in supporting information.

Disclosure

The protocol for this review was first posted on OSF (<https://osf.io/7yce4>) and relayed on the university portal <https://researchportal.vub.be/en/publications/what-do-we-refer-to-as-coaching-in-cancer-research-a-scoping-revi>.

Conflicts of Interest

The authors declare no conflicts of interest.

Author Contributions

All authors (1) have made substantial contributions to the conception and design, or acquisition of data, or analysis and

interpretation of data; (2) have been involved in drafting the manuscript or revising it critically for important intellectual content; (3) have given final approval of the version to be published; and (4) have agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. (*Supporting Information*)

Appendix 1: List of the keywords used to retrieve articles on online databases, as well as the research equation for each platform. Appendix 2: PDF file of the Excel sheet displaying all extracted information of the included studies. The present review is based on that table. Appendix 3: Complete list of references of the included studies (too long to be included in the manuscript). Appendix 4: Presentation of the two-step categorization of the coaching studies. Appendix 5: Crosstab between the phases of treatment and the categories of coaching. Appendix 6: Crosstab between the coaching providers and the phases of treatments. Appendix 7: Crosstab between the coaching providers and the coaching categories.

References

- [1] J. Ferlay, M. Colombet, I. Soerjomataram, et al., "Cancer Incidence and Mortality Patterns in Europe: Estimates for 40 Countries and 25 Major Cancers in 2018," *European Journal of Cancer* 103 (2018): 356–387, <https://doi.org/10.1016/j.ejca.2018.07.005>.
- [2] K. D. Miller, L. Nogueira, T. Devasia, et al., "Cancer Treatment and Survivorship Statistics, 2022," *CA: A Cancer Journal for Clinicians* 72, no. 5 (2022): 409–436, <https://doi.org/10.3322/caac.21731>.
- [3] J. Firkins, L. Hansen, M. Driessnack, and N. Dieckmann, "Quality of Life in "Chronic" Cancer Survivors: A Meta-Analysis," *Journal of Cancer Survivorship* 14, no. 4 (2020): 504–517, <https://doi.org/10.1007/s11764-020-00869-9>.
- [4] R. A. Cocchiara, I. Sciarra, V. D'Egidio, et al., "Returning to Work After Breast Cancer: A Systematic Review of Reviews," *Work* 61, no. 3 (2018): 463–476, <https://doi.org/10.3233/WOR-182810>.
- [5] H. Carreira, R. Williams, M. Müller, R. Harewood, S. Stanway, and K. Bhaskaran, "Associations Between Breast Cancer Survivorship and Adverse Mental Health Outcomes: A Systematic Review," *JNCI: Journal of the National Cancer Institute* 110, no. 12 (2018): 1311–1327, <https://doi.org/10.1093/jnci/djy177>.
- [6] Y. L. Luigjes-Huizer, N. M. Tauber, G. Humphris, et al., "What Is the Prevalence of Fear of Cancer Recurrence in Cancer Survivors and Patients? A Systematic Review and Individual Participant Data Meta-Analysis," *Psycho-Oncology* 31, no. 6 (2022): 879–892, <https://doi.org/10.1002/pon.5921>.
- [7] S. Plage, "Deploying Normality: Cancer Survivor Identity and Authenticity in Ritual-Like Practice," *Medical Anthropology* 40, no. 5 (2021): 473–489, <https://doi.org/10.1080/01459740.2021.1909582>.
- [8] P. Pradhan, L. Sharpe, and R. E. Menzies, "Towards a Stepped Care Model for Managing Fear of Cancer Recurrence or Progression in Cancer Survivors," *Cancer Management and Research* 13 (2021): 8953–8965, <https://doi.org/10.2147/CMAR.S294114>.
- [9] B. Redshaw, "Do We Really Understand Coaching? How Can We Make It Work Better?" *Industrial & Commercial Training* 32, no. 3 (2000): 106–109, <https://doi.org/10.1108/00197850010371693>.
- [10] D. R. Stober and A. M. Grant, *Evidence Based Coaching Handbook: Putting Best Practices to Work for Your Clients* (John Wiley & Sons, 2006).
- [11] S. Greif, H. Möller, W. Scholl, J. Passmore, and F. Müller, "Coaching Definitions and Concepts," in *International Handbook of Evidence-Based Coaching: Theory, Research and Practice*, eds. S. Greif, H. Möller, W. Scholl, J. Passmore, and F. Müller (Springer International Publishing, 2021), 1–12, https://doi.org/10.1007/978-3-030-81938-5_1.
- [12] J. Ammentorp, L. Uhrenfeldt, F. Angel, M. Ehrensverd, E. B. Carlsen, and P.-E. Kofoed, "Can Life Coaching Improve Health Outcomes?—A Systematic Review of Intervention Studies," *BMC Health Services Research* 13, no. 1 (2013): 428, <https://doi.org/10.1186/1472-6963-13-428>.
- [13] S. Greif, H. Möller, W. Scholl, J. Passmore, and F. Müller, "International Handbook of Evidence-Based Coaching: Theory, Research and Practice" (2021).
- [14] S. Palmer and A. Whybrow, *Handbook of Coaching Psychology: A Guide for Practitioners* (Routledge, 2018).
- [15] K. Ebner, E.-M. Schulte, R. Soucek, and S. Kauffeld, "Coaching as Stress-Management Intervention: The Mediating Role of Self-Efficacy in a Framework of Self-Management and Coping," *International Journal of Stress Management* 25, no. 3 (2018): 209–233, <https://doi.org/10.1037/str0000058>.
- [16] S. Greif and S. Palmer, "Stress and Stress Management in Coaching," in *International Handbook of Evidence-Based Coaching: Theory, Research and Practice*, eds. S. Greif, H. Möller, W. Scholl, J. Passmore, and F. Müller (Springer International Publishing, 2022), 863–876, https://doi.org/10.1007/978-3-030-81938-5_71.
- [17] O. M. Spaten, "Personal and Life-Coaching Psychology," in *Handbook of Coaching Psychology*, 2nd edition (Routledge, 2018), 347.
- [18] I. Boniwell, C. Kauffman, and J. Silberman, "The Positive Psychology Approach to Coaching," *The Complete Handbook of Coaching* 2 (2014): 157–169.
- [19] S. Panchal, S. Palmer, and S. Green, "From Positive Psychology to the Development of Positive Psychology Coaching," in *Handbook of Coaching Psychology* (Routledge, 2018), 51–67.

- [20] D. Lane, R. Stelter, and S. Stout-Rostron, "The Future of Coaching as a Profession," *The Complete Handbook of Coaching* (2014), 377–390.
- [21] N. Z. Abiddin, "Mentoring and Coaching: The Roles and Practices" (2006).
- [22] G. A. Sforzo, M. P. Kaye, I. Todorova, et al., "Compendium of the Health and Wellness Coaching Literature," *American Journal of Lifestyle Medicine* 12, no. 6 (2018): 436–447, <https://doi.org/10.1177/1559827617708562>.
- [23] S. Barakat, K. Boehmer, M. Abdelrahim, et al., "Does Health Coaching Grow Capacity in Cancer Survivors? A Systematic Review," *Population Health Management* 21, no. 1 (2018): 63–81, <https://doi.org/10.1089/pop.2017.0040>.
- [24] M. R. Lovell, T. Luckett, F. M. Boyle, J. Phillips, M. Agar, and P. M. Davidson, "Patient Education, Coaching, and Self-Management for Cancer Pain," *Journal of Clinical Oncology* 32, no. 16 (2014): 1712–1720, <https://doi.org/10.1200/jco.2013.52.4850>.
- [25] R. L. Street, C. Slee, D. K. Kalauokalani, D. E. Dean, D. J. Tancredi, and R. L. Kravitz, "Improving Physician–Patient Communication About Cancer Pain With a Tailored Education-Coaching Intervention," *Patient Education and Counseling* 80, no. 1 (2010): 42–47, <https://doi.org/10.1016/j.pec.2009.10.009>.
- [26] M. L. Thomas, J. E. Elliott, S. M. Rao, K. F. Fahey, S. M. Paul, and C. Miaskowski, "A Randomized, Clinical Trial of Education or Motivational-Interviewing-Based Coaching Compared to Usual Care to Improve Cancer Pain Management," *Oncology Nursing Forum* 39, no. 1 (2012): 39–49, <https://doi.org/10.1188/12.ONF.39-49>.
- [27] S. Greif, "Pseudoscience and Charlatanry in Coaching," in *International Handbook of Evidence-Based Coaching: Theory, Research and Practice*, eds. S. Greif, H. Möller, W. Scholl, J. Passmore, and F. Müller (Springer International Publishing, 2021), 755–772, https://doi.org/10.1007/978-3-030-81938-5_62.
- [28] H. Sucharew and M. Macaluso, "Methods for Research Evidence Synthesis: The Scoping Review Approach," *Journal of Hospital Medicine* 14, no. 7 (2019): 416–418, <https://doi.org/10.12788/jhm.3248>.
- [29] F. Schreiber and C. Cramer, "Towards a Conceptual Systematic Review: Proposing a Methodological Framework," *Educational Review* 0, no. 0 (2022): 1–22, <https://doi.org/10.1080/00131911.2022.2116561>.
- [30] A. C. Tricco, E. Lillie, W. Zarin, et al., "PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation," *Annals of Internal Medicine* 169, no. 7 (2018): 467–473, <https://doi.org/10.7326/m18-0850>.
- [31] W. M. Bramer, D. Giustini, G. B. de Jonge, L. Holland, and T. Bekhuis, "De-Duplication of Database Search Results for Systematic Reviews in EndNote," *Journal of the Medical Library Association: JMLA* 104, no. 3 (2016): 240–243, <https://doi.org/10.3163/1536-5050.104.3.014>.
- [32] Z. Munn, M. D. J. Peters, C. Stern, C. Tufanaru, A. McArthur, and E. Aromataris, "Systematic Review or Scoping Review? Guidance for Authors when Choosing between a Systematic or Scoping Review Approach," *BMC Medical Research Methodology* 18, no. 1 (2018): 143, <https://doi.org/10.1186/s12874-018-0611-x>.
- [33] M. M. Marques, A. Wright, M. Johnston, et al., "The Behaviour Change Technique Ontology: Transforming the Behaviour Change Technique Taxonomy V1," *PsyArXiv* (2023): <https://doi.org/10.31234/osf.io/vxyypn>.
- [34] S. Michie, R. West, A. N. Finnerty, et al., "Representation of Behaviour Change Interventions and Their Evaluation: Development of the Upper Level of the Behaviour Change Intervention Ontology," *Wellcome Open Research* 5 (2021): 123, <https://doi.org/10.12688/wellcomeopenres.15902.2>.
- [35] N. J. Berzins, M. Mackenzie, M. L. Galantino, et al., "Preliminary Effectiveness Study of a Community-Based Wellness Coaching for Cancer Survivors Program," *American Journal of Lifestyle Medicine* 18, no. 4 (2022): 465–474, <https://doi.org/10.1177/15598276221076040>.
- [36] D. M. O'Malley, S. N. Davis, R. Amare, et al., "User-Centered Development and Patient Acceptability Testing of a Health-Coaching Intervention to Enhance Cancer Survivorship Follow-Up in Primary Care," *Journal of Cancer Education* 37, no. 3 (2022): 788–797, <https://doi.org/10.1007/s13187-020-01883-2>.
- [37] D. L. Stan, S. M. Cutshall, T. F. Adams, et al., "Wellness Coaching: An Intervention to Increase Healthy Behavior in Breast Cancer Survivors," *Clinical Journal of Oncology Nursing* 24, no. 3 (2020): 305–315, <https://doi.org/10.1188/20.CJON.305-315>.
- [38] J. Cairo, L. Williams, L. Bray, K. Goetzke, and A. C. Perez, "Evaluation of a Mobile Health Intervention to Improve Wellness Outcomes for Breast Cancer Survivors," *Journal of Patient-Centered Research and Reviews* 7, no. 4 (2020): 313–322, <https://doi.org/10.17294/2330-0698.1733>.
- [39] S. Cuvelier, D. Blaise, J.-M. Boher, et al., "A Study of Elite Sport-Inspired Coaching for Patients After Allogeneic Hematopoietic Stem Cell Transplantation," *Bone Marrow Transplantation* 56, no. 11 (2021): 2755–2762, <https://doi.org/10.1038/s41409-021-01401-y>.
- [40] M. L. Galantino, P. Schmid, S. Botis, C. Dagan, S. M. Leonard, and A. Milos, "Exploring Wellness Coaching and Traditional Group Support for Breast Cancer Survivors: A Pilot Study," *Rehabilitation Oncology* 28, no. 1 (2010): 19–25, <https://doi.org/10.1097/01893697-201028010-00003>.
- [41] J. Lo, K. Ballurkar, S. Fox, et al., "A Digital Coaching Intervention for Cancer Survivors With Job Loss: Retrospective Study," *JMIR Cancer* 7, no. 4 (2021): e31966, <https://doi.org/10.2196/31966>.
- [42] F. Monteiro-Guerra, G. R. Signorelli, S. Tadas, et al., "A Personalized Physical Activity Coaching App for Breast Cancer Survivors: Design Process and Early Prototype Testing," *JMIR mHealth and uHealth* 8, no. 7 (2020): e17552, <https://doi.org/10.2196/17552>.
- [43] A. M. Nápoles, J. Santoyo-Olsson, L. Chacón, A. L. Stewart, N. Dixit, and C. Ortiz, "Feasibility of a Mobile Phone App and Telephone Coaching Survivorship Care Planning Program Among Spanish-Speaking Breast Cancer Survivors," *JMIR Cancer* 5, no. 2 (2019): e13543, <https://doi.org/10.2196/13543>.
- [44] E. Ristevisk, T. Trinh, N. Vo, et al., "I.CAN: Health Coaching Provides Tailored Nutrition and Physical Activity Guidance to People Diagnosed With Cancer in a Rural Region in West Gippsland, Australia," *Journal of Cancer Survivorship* 14, no. 1 (2020): 48–52, <https://doi.org/10.1007/s11764-019-00818-1>.
- [45] A. M. Algotar, C. H. Hsu, H.-H. Chow, et al., "Comprehensive Lifestyle Improvement Program for Prostate Cancer (CLIPP) Is Associated With Improvement in Weight and Components of Metabolic Syndrome in Men Exposed to Androgen Deprivation Therapy for Prostate Cancer," *Prostate Cancer and Prostatic Diseases* 24, no. 3 (2021): 903–909, <https://doi.org/10.1038/s41391-021-00346-z>.
- [46] B. Berger-Höger, K. Liethmann, I. Mühlhauser, and A. Steckelberg, "Implementation of Shared Decision-Making

- in Oncology: Development and Pilot Study of a Nurse-Led Decision-Coaching Programme for Women With Ductal Carcinoma In Situ,” *BMC Medical Informatics and Decision Making* 17, no. 1 (2017): 160, <https://doi.org/10.1186/s12911-017-0548-8>.
- [47] C. M. Liska and D. Stacey, “Decision Support for a Woman Considering Continuing Extended Endocrine Therapy for Breast Cancer: A Case Study,” *Canadian Oncology Nursing Journal* 26, no. 4 (2016): 297–303, <https://doi.org/10.5737/23688076264297303>.
 - [48] R. Banerjee, C.-Y. Huang, L. Dunn, et al., “Digital Life Coaching During Stem Cell Transplantation: Development and Usability Study,” *JMIR Formative Research* 6, no. 3 (2022): e33701, <https://doi.org/10.2196/33701>.
 - [49] N. Samarel, J. Fawcett, and L. Tulman, “Effect of Support Groups With Coaching on Adaptation to Early Stage Breast Cancer,” *Research in Nursing & Health* 20, no. 1 (1997): 15–26.
 - [50] C. Timmermann, J. Ammentorp, and R. Birkelund, “Person-Centred Communication With Cancer Survivors: Exploring the Meaning of Follow-Up Coaching Conversations,” *Scandinavian Journal of Caring Sciences* 37, no. 1 (2021): 243–249, <https://doi.org/10.1111/scs.13007>.
 - [51] R. Wagland, D. Fenlon, R. Tarrant, G. Howard-Jones, and A. Richardson, “Rebuilding Self-Confidence after Cancer: A Feasibility Study of Life-Coaching,” *Supportive Care in Cancer* 23, no. 3 (2015): 651–659, <https://doi.org/10.1007/s00520-014-2399-5>.
 - [52] C. Yj, N. Gl, F. Kd, and T. Petitte, “Home-Telemonitoring Lung Cancer Intervention in Appalachia: A Pilot Study,” *International Journal of Chronic Diseases & Therapy* 2, no. 2 (2016): 21–30, <https://doi.org/10.19070/2572-7613-160005>.
 - [53] A. Shearsmith, “An Exploration of Holistic Life Coaching for Breast Cancer Survivors,” *International Journal of Evidence Based Coaching & Mentoring* (2011).
 - [54] C. Sawicki, K. E. Friend, R. Patel, J. M. Polinski, and S. Singh, “Two-Way Clinical Messaging in a CML Specialty Pharmacy Service Model,” *Journal of Managed Care & Specialty Pharmacy* 25, no. 11 (2019): 1290–1296, <https://doi.org/10.18553/jmcp.2019.25.11.1290>.
 - [55] D. Wilkie, D. Berry, K. Cain, et al., “Effects of Coaching Patients With Lung Cancer to Report Cancer Pain,” *Western Journal of Nursing Research* 32, no. 1 (2010): 23–46, <https://doi.org/10.1177/0193945909348009>.
 - [56] A. Adkins, “Peer Coaching During Treatment Decision Making With Men Newly Diagnosed With Prostate Cancer,” *International Journal of Evidence Based Coaching & Mentoring* 15 (2021).
 - [57] S. Eggly, L. M. Hamel, T. S. Foster, et al., “Randomized Trial of a Question Prompt List to Increase Patient Active Participation During Interactions With Black Patients and Their Oncologists,” *Patient Education and Counseling* 100, no. 5 (2017): 818–826, <https://doi.org/10.1016/j.pec.2016.12.026>.
 - [58] A. Jerant, P. Franks, and R. L. Kravitz, “Associations Between Pain Control Self-Efficacy, Self-Efficacy for Communicating With Physicians, and Subsequent Pain Severity Among Cancer Patients,” *Patient Education and Counseling* 85, no. 2 (2011): 275–280, <https://doi.org/10.1016/j.pec.2010.11.007>.
 - [59] M. Kenyon, F. Young, G. j. Mufti, A. Pagliuca, Z. Lim, and E. Ream, “Life Coaching Following Haematopoietic Stem Cell Transplantation: A Mixed-Method Investigation of Feasibility and Acceptability,” *European Journal of Cancer Care* 24, no. 4 (2015): 531–541, <https://doi.org/10.1111/ecc.12297>.
 - [60] L. F. Obro, P. J. S. Othier, J. Ammentorp, et al., “An Intervention Offering Self-Management Support through mHealth and Health Coaching to Patients With Prostate Cancer: Interpretive Description of Patients’ Experiences and Perspectives,” *JMIR Formative Research* 6, no. 9 (2022): e34471, <https://doi.org/10.2196/34471>.
 - [61] P. I. Chow, S. L. Showalter, M. Gerber, et al., “Use of Mental Health Apps by Patients With Breast Cancer in the United States: Pilot Pre-Post Study,” *JMIR Cancer* 6, no. 1 (2020): e16476, <https://doi.org/10.2196/16476>.
 - [62] B. M. Pinto, S. I. Dunsiger, M. M. Kindred, and S. Mitchell, “Physical Activity Adoption and Maintenance Among Breast Cancer Survivors: A Randomized Trial of Peer Mentoring,” *Annals of Behavioral Medicine* 56, no. 8 (2022): 842–855, <https://doi.org/10.1093/abm/kaab078>.
 - [63] P. M. Fracasso, S. A. Goodner, A. N. Creekmore, et al., “Coaching Intervention as a Strategy for Minority Recruitment to Cancer Clinical Trials,” *Journal of Oncology Practice* 9, no. 6 (2013): 294–299, <https://doi.org/10.1200/JOP.2013.000982>.
 - [64] K. K. W. Lam, W. H. C. Li, O. K. Chung, et al., “An Integrated Experiential Training Programme With Coaching to Promote Physical Activity, and Reduce Fatigue Among Children With Cancer: A Randomised Controlled Trial,” *Patient Education and Counseling* 101, no. 11 (2018): 1947–1956, <https://doi.org/10.1016/j.pec.2018.07.008>.
 - [65] S. K. Allen, V. Brown, D. White, et al., “Multimodal Prehabilitation During Neoadjuvant Therapy Prior to Esophagogastric Cancer Resection: Effect on Cardiopulmonary Exercise Test Performance, Muscle Mass and Quality of Life—A Pilot Randomized Clinical Trial,” *Annals of Surgical Oncology* 29, no. 3 (2022): 1839–1850, <https://doi.org/10.1245/s10434-021-11002-0>.
 - [66] E.-O. Im, J.-S. Yi, H. Kim, and W. Chee, “A Technology-Based Information and Coaching/Support Program and Self-Efficacy of Asian American Breast Cancer Survivors,” *Research in Nursing & Health* 44, no. 1 (2021): 37–46, <https://doi.org/10.1002/nur.22059>.
 - [67] A. R. Rosenberg, C. Zhou, M. C. Bradford, et al., “Assessment of the Promoting Resilience in Stress Management Intervention for Adolescent and Young Adult Survivors of Cancer at 2 years: Secondary Analysis of a Randomized Clinical Trial,” *JAMA Network Open* 4, no. 11 (2021): e2136039, <https://doi.org/10.1001/jamanetworkopen.2021.36039>.
 - [68] A. Sikorskii, C. W. Given, A.-E.-A. Siddiqi, et al., “Testing the Differential Effects of Symptom Management Interventions in Cancer,” *Psycho-Oncology* 24, no. 1 (2015): 25–32, <https://doi.org/10.1002/pon.3555>.
 - [69] J. McCusker, J. M. Jones, M. Li, et al., “CanDirect: Effectiveness of a Telephone-Supported Depression Self-Care Intervention for Cancer Survivors,” *Journal of Clinical Oncology* 39, no. 10 (2021): 1150–1161, <https://doi.org/10.1200/JCO.20.01802>.
 - [70] D. Burbage, N. Duffy, E. J. Johnson, and S. M. Schneider, “Cancer Survivorship Program: Implementation for Individuals With Recurrent Breast Cancer,” *Clinical Journal of Oncology Nursing* 24, no. 1 (2020): 89–94, <https://doi.org/10.1188/20.cjon.89-94>.
 - [71] A. Zhang, A. Weaver, E. Walling, et al., “Evaluating an Engaging and Coach-Assisted Online Cognitive Behavioral Therapy for Depression Among Adolescent and Young Adult Cancer Survivors: A Pilot Feasibility Trial,” *Journal of Psychosocial Oncology* 41, no. 1 (2022): 20–42, <https://doi.org/10.1080/07347332.2021.2011530>.
 - [72] N. A. Kolb, A. G. Smith, J. R. Singleton, et al., “Chemotherapy-Related Neuropathic Symptom Management: A Randomized

- Trial of an Automated Symptom-Monitoring System Paired With Nurse Practitioner Follow-Up,” *Supportive Care in Cancer* 26, no. 5 (2018): 1607–1615, <https://doi.org/10.1007/s00520-017-3970-7>.
- [73] T. Bachkirova and S. Baker, “Revisiting the Issue of Boundaries Between Coaching and Counselling,” in *Handbook of Coaching Psychology*, 2nd edition (Routledge, 2018), 487.
- [74] N. J. Hulbert-Williams, L. Beatty, and H. M. Dhillon, “Psychological Support for Patients With Cancer: Evidence Review and Suggestions for Future Directions,” *Current Opinion in Supportive and Palliative Care* 12, no. 3 (2018): 276–292, <https://doi.org/10.1097/SPC.0000000000000360>.
- [75] A. Garland and S. K. Schoenwald, “Use of Effective and Efficient Quality Control Methods to Implement Psychosocial Interventions,” *Clinical Psychology: Science and Practice* 20, no. 1 (2013): 33–43, <https://doi.org/10.1111/cpsp.12021>.
- [76] M. M. Marques, R. N. Carey, E. Norris, et al., “Delivering Behaviour Change Interventions: Development of a Mode of Delivery Ontology,” *Wellcome Open Research* 5 (2021): 125, <https://doi.org/10.12688/wellcomeopenres.15906.2>.
- [77] H. K. Singh, G. A. Kennedy, and I. Stupans, “Competencies and Training of Health Professionals Engaged in Health Coaching: A Systematic Review,” *Chronic Illness* 18, no. 1 (2022): 58–85, <https://doi.org/10.1177/1742395319899466>.
- [78] M. P. van Egmond, S. F. A. Duijts, A. P. J. Scholten, A. J. van der Beek, and J. R. Anema, “Offering a Tailored Return to Work Program to Cancer Survivors With Job Loss: A Process Evaluation,” *BMC Public Health* 16, no. 1 (2016): 940, <https://doi.org/10.1186/s12889-016-3592-x>.
- [79] B. Brusletto, R. A. Nielsen, H. Engan, et al., “Labor-force Participation and Working Patterns Among Women and Men Who Have Survived Cancer: A Descriptive 9-Year Longitudinal Cohort Study,” *Scandinavian Journal of Public Health* 49, no. 2 (2021): 188–196, <https://doi.org/10.1177/1403494820953330>.
- [80] P. Gérain, P. Aurouet, and J. Foucaud, “Proceedings of the International Scientific Conference “Cancer, Work & Employment”—Paris, November 21 and 22, 2022,” *Psycho-Oncologie* 17, no. 1 (2023): 11–17, <https://doi.org/10.3166/pspon-2022-0227>.
- [81] K. Lamore, T. Dubois, U. Rothe, et al., “Return to Work Interventions for Cancer Survivors: A Systematic Review and a Methodological Critique,” *International Journal of Environmental Research and Public Health* 16, no. 8 (2019): 1343, <https://doi.org/10.3390/ijerph16081343>.