

Review

Psychosocial care interventions in cancer treatment: a review of innovative approaches to patient empowerment

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CITATION

Xu L. Psychosocial care interventions in cancer treatment: a review of innovative approaches to patient empowerment. *Psycho-Oncologie*. 2026; 20(4): 4191. <https://doi.org/10.18282/po4191>

ARTICLE INFO

Received: 04 March 2025

Available online: 03 June 2026

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Abstract: Cancer represents a significant global public health challenge, posing not only a serious threat to the physical health of individual patients but also resulting in extensive mental and psychological distress for both patients and their families. Within the framework of the subject matter, conducting interventions to help the patient mentally and socially, has come to be a key part of the cancer treatment process by relaxing the psychological suffering, improving the quality of life and increasing the treatment compliance. The aim of this paper is to provide a comprehensive review of the psychosocial nursing interventions in the field of the cancer care with the addition of some innovative ways of helping patients to feel more powerful. This paper comprises a thorough review of the already published literature to bring to light the distinct value of patient empowerment among the skills of self-management, communication between patients and healthcare providers, and a patient being active in decision-making. The point is to lay down a sturdy scientific basis for clinical nursing practice but also to indicate the potential fields of research to be explored in the future. Also, the contents of the paper are dealing with the issues linked with the implementation of patient empowerment, are the findings about their effectiveness and the anticipated trends for their forthcoming developments. The intention of this debate is to contribute towards theoretical as well as practical innovation within the domain of psychosocial interventions in cancer care.

Keywords: cancer care, psychosocial care interventions, patient empowerment

1. Introduction

Cancer treatment and management remain a really complex and challenging task to be solved inside the common set of medical standards of our day. Cancer survivors despite the physical suffering, they encounter have to face with various other psychological afflictions including social and spiritual stressors [1]. The intricate entanglement of these aspects of health with one another largely accounts for the patients' condition. Psychosocial nursing models, which pursue a multi-dimensional approach, are geared to offering comprehensive health care to cancer survivors by guiding them through the complexity and multiplicity of the disease, thereby increasing their quality of life [2]. In the present scope of treatment, patients' empowerment is increasingly becoming important and a prominent point of psychosocial interventions [3].

The concept of patient empowerment is a core concept that derives from the ideals of personhood and freedom. It puts the patient at the center of health management process as an active decision-maker and not as a passive participant. Whereas the medical professionals are there to provide the best possible care, the patients are also required to contribute all they can in decision-making [4, 5]. Patient empowerment in the context of cancer care is the patient's increasing of his/her self-

efficacy and gaining control over the disease by means of different strategies such as the provision of information, education, effective communication, emotional support, and involvement in decision-making [6, 7]. This principle forms the divergent segment of health care that is otherwise centered on unfaltering dependence of the patients on actions that are undertaken by medical personnel. The idea promotes inclusion of patients as participants, whose input is of utmost significance in the treatment decision process.

The primary aim of this article is to provide a comprehensive review on in-depth studies on the concepts of empowerment in psychosocial nursing interventions in the field of cancer care by drawing on an all-rounded analysis of the theoretical foundations and the crucial scramble of empowerment. This paper will present practical suggestions for future research undertakings, including ways of deepening patient empowerment in cancer care by the collaborative effort of different medical teams, utilizing innovative technologies, and then improving methodologies. The study aims at communication of our research findings to oncology professionals, advocacy for a robust scientific implementation of patient empowerment strategies, and finally reaching a significant difference in the lives of cancer-afflicted individuals.

2. Method

This review was conducted through a literature search of CNKI, PubMed, and Web of Science databases covering publications from 2000 to 2024. Keywords included “cancer care”, “psychosocial care intervention”, “patient empowerment”, and related terms. Relevant literature addressing psychosocial interventions and patient empowerment in cancer care was reviewed and synthesized.

2.1. Psychosocial care interventions

2.1.1. Importance of psychosocial care interventions

The significance of psychosocial nursing interventions in the treatment of cancer is paramount. The psychosocial needs of cancer patients are multifaceted, encompassing the necessity for information regarding the disease, emotional support, enhanced self-management skills, and an improved quality of life. Addressing these needs is essential for the overall recovery of the patient.

2.1.2. Psychosocial needs of cancer patients

Cancer patients encounter not only physical health challenges but also psychosocial issues, including economic stress, alterations in interpersonal and familial relationships, and adjustments in roles due to their diagnosis and treatment. Mental health and quality of life are the most impacted by these elements [8]. Emotional reactions such as feeling endless that may be caused by untreated psychosocial needs are exactly vulnerability, sadness, fear, with severity, including even anxiety, depression, and social isolation [9, 10]. Thus, a fundamental goal for nursing interventions in psychological fields is to identify and deal with such problems in order to ease the patient's psychological distress.

The issue of psychological support, in the context of cancer care, is one that cannot be neglected. The most viable means to remedy the psycho-emotional problems of patients are through personalized psychological diagnostics and treatments, continuous psychological care and family support proposal [11]. However, no less difficult is the application of this strategy in practice, for instance dramatic moods among the patients, the team being under significant pressure, and the relatives' inadequate participation [12]. To tackle these problems, we should first

establish a platform for more elaborate monitoring, follow-up team development, and training of psychological caregivers in self-protection. In addition to that, enhancing the communication and cooperation with family members will lead to the delivery of better family support services [13].

Cancer patients, in addition to adequate treatments, have to get information about their illness, emotional support, be taught how to improve their self-management skills, and one more thing is they have to have a better quality of life [14]. Meeting these needs is key to overall recovery of the patient. For example, a timely and correct mental health screening and assessment is an important part of the process of mental recovery and health increase. Because mental health assessment instruments are widely used tools across multipurpose service networks and include the different subscales of emotional arousal, anxiety, depression, and post-traumatic stress disorder (PTSD), they make the diagnosis of psychiatric problems easier and faster. These inventories are liked for their high sensitivity, specificity, and positive and negative predictive values [15, 16]. The psychological needs of cancer patients are multivariate and need psychosocial care in full, identification, and treatment of these needs are used to mitigate psychological distress and improve the quality of life [17]. This means that health practitioners should not only focus on the patients' physical symptoms but also their psychological well-being and provide all-around support and care through integrated psychosocial services.

2.1.3. Impact of psychosocial interventions on patients' quality of life

Psychosocial support services have been proven to be highly effective in stress management and addressing problems related to cancer treatment they provide customized psychological help to patients and families which includes behavioral therapy, cue therapy, supportive expression group therapy, and group psychotherapy [18]. This means how psychosocial interventions that are complementing not only verbal and nonverbal communication skills in fact, they provide multifaced and holistic support, which may include medication management and environmental modifications [19]. Though research revealed that, practically, the psychosocial support involvement led to significant improvements in patients' mental health, treatment outcomes, and increase of survival rates. Medication-free therapies, for exam meditation, wellness programs are getting developed and are often mentioned as influential mechanisms in people's mental health and general well-being improvement [20].

In the exploration of the impact of beliefs on the participation in psychosocial interventions, the perceptions of negative emotional states and their status of life were found to be positively and significantly affected as the experimental group social support measures were included ($P < 0.05$). The results of this study suggest that psychosocial interventions not only help to patients' mental health recovery but also raise their quality of life, hence, in clinical settings, they should be promoted [21]. Therefore, interventions which are offered in the area of psychosocial nursing are the ones that are directly related to the topic of cancer care and that those who are in charge meet the psychosocial needs of the patients as well as facilitate their mental health and hence quality of life. These techniques make the biggest difference in the treatment of those cancer patients.

At the onset of the following research, the finding that the application of mental and emotional rehabilitation is effective in bringing about the appropriate improvement may be put across to those who are suffering from mental illness is

proven the most [22]. For example, among other strategies, psychological distress thermometers could serve as crucial tools not only for screening but also for the accurate and timely assessment of the mental health of cancer patients [23]. Additionally, psychosocial interventions also cover health education programs that are oriented towards raising the patients' knowledge and self-care capacities about their condition which is a key factor in addition to enhancing quality of life [24, 25]. The mental health and quality of life of cancer patients show multiple aspects of psychosocial interventions; that mental health is improved but also, life quality is taken care of and when both are done, you have the best recovery and you can last longer as a cancer patient.

2.1.4. Types of psychosocial care interventions

Psychosocial care interventions that are based on the biopsychosocial model represent not only a supporting type of care but a whole multimodal approach that includes support of different types, patient empowerment, health education, guidance in using the healthcare system, etc. As a consequence, such a model enables various levels of support for people experiencing cancer.

2.1.5. Psychological interventions

The main reason psychological therapies are used in cancer care is that they don't cover only counseling, psychotherapy, and emotional support but also movement exercises that are part of the entire spectrum of mental health activities [26]. The main purpose of psychological interventions is to help patients identify and overcome psychological stress. Cognitive- behavioral therapy (CBT), a well-known psychotherapeutic method, has been shown to be effective in allowing patients to change their frame of mind and which is thus compatible with them to cope with the psychological effects of diagnosis and treatment of cancer [27]. CBT leads to increasing patients' feeling of psychological well-being since it empowers them to recognize and combat negative thoughts of all sorts, which is of particular benefit to youngest clients. In addition, findings reveal that face-to-face treatments are more successful than telemedicine, which stresses how crucial interpersonal relationships are for effective therapeutic outcomes [28].

Psychological interventions are very diverse in their kind and spread as a psychological intervention includes health promotion, disability care, or even the developmental process. These treatments enable people to act in a positive way, see thoughts in a more constructive manner, and make necessary lifestyle changes, which in turn will help them improve their health through enhanced self-management skills [29]. Such as, a study sought to investigate the factors that were influencing self-management behaviors among cancer patients, using the theoretical domain framework, and discovered that psychosocial factors were the major cause of patient self-management behavior [30]. Moreover, the application of the psychological distress thermometer and the examination of psychological distress screening in the Chinese population have solidified the position of the psychological evaluation tools as they have further been considered to be crucial in psychological interventions [31, 32].

The assessment of psychological interventions on the state of negative emotions and life quality of cancer patients showed that the improvements in those when compared with the control group were statistically and symptomatically preferable in the case of the social support group. Such results show that not only psychosocial therapies will help people to reach their recovery in mental health but also might be responsible for their overall better quality of life [33]. Psychosocial nursing is then

needed in cancer care for it provides the necessary support for cancer survivors' psychological and emotional needs and significantly increases their quality of their own lives. Hence, such interventions that focus on the main patient problems represent major improvements in the entire cancer patients' quality of care.

2.1.6. Social intervention

The core mission of social intervention is to create a social support system that helps the patients socialize and makes them lead an everyday social life in spite of the obstacles caused by the illness. Family support is an essential part of this network, as it gives patients both emotional comfort and physical assistance. Studies have also revealed that the family's support can greatly improve the emotional well-being of patients and their overall quality of life. Additionally, the integration of social resources such as medical services, community programs, and support from charitable organizations can give patients the opportunity to obtain a wider range of services that include financial aid, psychological counseling, and support in their daily living activities [34-35].

Rehabilitation is the core part of social intervention which means physical optimization, occupational counseling, and the development of social relationships [36]. The National Cancer Institute of the United States defined oncology rehabilitation in four different dimensions which include the repairing of physical, social, psychological, and occupational functions as the main task of rehabilitation [37]. The concept of prehabilitation, which describes a series of pre-treatment interventions performed before the active treatment phase, has been shown to be beneficial in the postoperative recovery and long-term prognostic outcomes [38].

The assessment of the effects of social interventions showed that the symptoms of the intervention group were significantly changed in a positive way in contrast to the control group whose symptoms got worse. This discovery proves even more the vital part the social interventions play in helping the mental health recovery of persons as it has a direct impact on their living standards [39]. Therefore, the social interventions not only address the psychosocial needs of patients but also critically influence the enhancement of their mental health and quality of life, which is the main part of the improvement of overall care quality in people with cancer.

2.1.7. Health education

Health education's role is a vital part of cancer care since it not only involves the dissemination of information and behavioral change but also largely contributes to the development of patients' self-management capabilities as well as their general quality of life. Patient education sessions are created to help them and their families get a full understanding of their condition, treatment alternatives, as well as the ways of adaptation to the new lifestyle, department underlining patients' comprehension of their disease and compliance with the treatment protocols [40, 41]. This educational process does not only improve patients' self-management abilities but also develops their ability to make good decisions, thus, giving them the necessary tools to fight the disease.

relevant self-care competencies are improved, i.e., management of symptoms and side effects, as a result of the implementation of an educational intervention that consists of receiving proper instruction. These changes can lead to a significantly better treatment adherence and as a consequence to life quality too [42]. Also, it works as a kind of therapy that helps to soothe the patients' minds from the dreadful feelings of fear, anxiety, and depression due to cancer diagnosis and the treatment

process thereafter [43][44].

2.1.8. Patient empowerment

Patient empowerment is the basic element of psychosocial nursing interventions and is mostly promoted through patient participation and the recognition of patient preferences together with the development of self-management skills. These strategies are used to promote a holistic improvement in patients' psychological, physiological and social functioning [45]. The process of empowerment is a stimulant to the patients to assert their rights to the decision-making intrigued at their treatment that will help to set a course of care basing on the individual good-namely their needs and values. In addition to that, it becomes a mechanism that instigates the patients to be more participatory, thus, support the overall efficiency of the treatment.

The empowerment context means that care planning focuses on the patient as the major decision-maker, including sharing the patient's preferences, experiences, and needs with the formulation of the care plan [46]. This model, which is also known as the patient-centered approach, is not only believed to be a major cause of patient satisfaction, but also a driver of patients' adhering to treatment regimens. The studies demonstrate that when patients have a feeling of empowerment, they behave better with their treatment plans and comply with doctor's orders, which accumulates to outsized results and better health and high-life quality [47].

As such, healthcare providers need to offer patients with essential information and resources that will enable them to grasp their medical conditions and the various options for the treatment. This implies informing patients about the disease, treatment options, potential side effects, and the expected outcomes in a clear and comprehensive way [48]. Additionally, empowerment consists in educating the patients on social support resources and their proper use, and in teaching them how to successfully navigate through the healthcare labyrinth.

In practical terms, the efficiency of empowerment strategies can be gauged by a patient feedback system. For example, patients are requested to fill in surveys about the level of satisfaction with the care they receive and the degree to which they feel involved in and in control of the treatment their disease is going through [49]. This feedback not only helps in the consolidation of the nursing aspects but also presents key tips on the design of future patient empowerment strategies. Patient empowerment represents one of the paramount characters that can match the role of psychosocial nursing interventions in patients' treatment experiences and quality of life by making the latter more self-programmable and acquiring the first as the engager [50].

The success of health recommendation systems (HRS) with respect to the care of cancer patients lies in providing information about the disease, the treatment options, and the healthcare services as well as guidance and self-care, symptom management, decision support, remote home management and follow-up consultations. These platforms are in place to offer intelligent and personalized care support to people diagnosed with cancer [51]. This changing face is a signal of a continuous transition of psychosocial care that goes in parallel with technological progress as the best possible way to reach perfect patient care results. The significance of the psychosocial nursing interventions in cancer care is undisputed, as these are the treatments that are available for the patients that also incorporates the aspects of well-being. This, in its turn, provides the patient with a whole and unique care experience through a broad and individualized view of the disease.

2.2. Innovative approaches to patient empowerment

2.2.1. Policy reform and organizational culture change

In the provision of cancer treatment, involving patients and giving them more control and freedom in the decision-making process is the key to success [52]. Policy reform plays a pivotal role in fostering patient empowerment. The formulation and execution of patient-centered care policies can facilitate a transformation in nursing practices, thereby better addressing the needs of patients [45, 53]. Additionally, shifts in organizational culture are essential, necessitating healthcare institutions to transition from a traditional disease-centered approach to a patient-centered model [54]. This transition entails not only the optimization of nursing processes but also the improvement of nursing staff's awareness and respect for the unique differences among individual patients. The Denison Organizational Culture Model serves as a valuable instrument for evaluating and enhancing the organizational culture within hospital nursing, thereby contributing to the establishment of a patient-centered care culture by increasing nurse engagement, reinforcing the organizational mission, ensuring consistency, and adapting to the diverse needs of patients [55].

2.2.2. Application of digital health technologies

The inclusion of digital health technologies is something new. It can be an essential part of treatment, opening up new opportunities for people to feel responsible for their own health. Besides, through the use of such developments as AI, big data analytics, and mobile health applications, cancer patients can get the care plan and health information that suits them, which in turn will allow them to take initiative when it comes to their self-management [56]. For instance, the use of digital twin technology in the field of oncology not only helps physicians to make the diagnosis and prognosis with a higher probability but also gives patients more precise treatment suggestions [45]. Additionally, digital health technologies remove the barriers to patient engagement by enabling them to stay near to the treatment process through remote monitoring and online counseling services [57].

2.2.3. Patient participation in care decisions

Healthcare decision-making based on input provided by patient is an important element in the quest to build patient empowerment. Studies have proved that involving patients in their care decisions positively affects their satisfaction and adherence to treatment, leading thus to better ways of managing their psychological stress due to the illness [58]. To promote patient participation, healthcare professionals need to, first of all, evaluate patients' attitudes and needs, maximize communication strategies at the same time, and finally motivate patients for their active engagement in the creation and execution of care plans. Moreover, non-pharmacological intervention methods (like physical activity and psychosocial support) have shown their usefulness in the treatment of cancer-related fatigue in breast cancer patients and underlining the contribution of patient participation in care decisions [59].

2.3. Patient empowerment innovations in cancer care

The following examples are representative models synthesized from published literature and are presented to illustrate potential approaches to patient empowerment.

2.3.1. Increased patient engagement

Improving patient engagement is a core part of the innovative strategy, which aims to give more power to the patients in a certain framework of cancer care. The main goal of this strategy is to increase the patients' understanding of the disease

trajectory and the different types of treatment available by letting them be a part of the decision-making processes about the treatment. It is postulated that this involvement will help the patients to make more effective choices of the treatment they wish. Many researches have proven that patient participation in the decision-making of treatment not only is a move toward getting a patient to follow the suggested treatment plan but also it elevates the success of treatments [60]. One example is a longitudinal study of lung cancer patients who participated as active decision-makers in the decision-making process, which revealed that they reported better psychological adjustment and significantly higher quality of life scores than did patients who were not involved in the decision-making [61]. Besides, a systematic review came to the conclusion that patient involvement in the treatment decision-making process could minimize the medical disputes and it can create a trustful connection between health providers and patients, which would promote a more compassionate approach to patient care [62].

A cancer center in the United States is the one that brought forward the innovative approach to patient empowerment through their Patient Decision Aid Program [63]. This program initiates the informed decision-making process by providing personalized medical information, decision aids, and professional counseling in the context of their treatment options. Research shows that people who participated in the program experienced significant improvements in treatment satisfaction, disease knowledge, and adherence to treatment protocols. And equivalently patients with advanced cancer, who in particular but not exclusively, found the program very effective, as it brought a new perspective in their fight for life and health, leading to personal life decisions guided by their existential purpose ending at life. The above not only meant that their life was better but they were also the pivotal players in the management of their diseases.

2.3.2. Respect for patients' wishes

Considering patients' preferences is a very important part of the new method of patient empowerment in cancer that uses innovation. In agreement with this guiding, deeply rooted personal conversations and detailed needs appraisals help to understand the individual needs comprehensively. The knowledge so gained further on goes on to be the basis for the personalized care plan creation that fits only the special situation of the respective patient. Such a patient-centered care model not only significantly encourages patient satisfaction but also promotes a doctor-patient relationship with communication and cooperation [64]. When patients' preferences are recognized and respected, their compliance and adherence to the treatment plan are noticeably improved [65]. For example, a research study on advanced cancer patients found that those who got a personal treatment plan enjoyed remarkable improvements in comfort and quality of life, therefore, the importance of respecting patients' desires is once again brought to light in the nursing field [66].

The Patient's Wish Fulfillment Program at a European institute specializing in cancer is an instance of the successful offering of respect to patients' preferences [67]. The way this program works is by putting together a group of healthcare professionals, including doctors, nurses, psychologists, and social workers, who collaborate to the best of their ability to fulfill the special wishes of cancer patients. The team has in-depth conversations with both the patient and their family in order to determine the patient's special wants and in addition, sets off such processes as even a family gathering to the organizing of a long-awaited event [68]. Since the program's start, patients and their family members have seen a great change by the satisfaction levels going up and the patients reporting that they feel respected and supported as they approach the final

days of life. This story is a vivid example of how an innovative method which respects patients' wishes in cancer care can not only make life better but also give substantial emotional and psychological comfort to patients.

2.3.3. Developing patient self-management skills

The primary goal of strategies for patient empowerment is enabling it through the development of self-management abilities in patients. Underlying this strategy is the promotion and upgrading of patients' self-management skills to keep themselves healthy. This process involves not only the provision of disease-centric knowledge but also the development of important daily living skills, with the primary goal of enabling cancer patients to cope with their care more effectively [69]. A retrospective analysis conducted systematically showed that the cancer patients who took part in self-management training experienced significant results in symptom control as well as improvements in their overall quality of life [70]. Besides, a communication platform is a crucial prompt for patient empowerment advancement. Through a channel-based communication system, the cooperation of the healthcare service providers with the patients and their families has significantly increased, which resulted in the easy sharing and exchange of information leading to better treatment outcomes. A study pointed out that the use of communication strategies and plans can effectively address patients' concerns of uncertain treatment [71].

The Healthcare Cancer Center in Florida, U.S.A., reported on the Self-Management Enhancement Program (SMEP) in the context of a research study to improve the self-management skills in people suffering from the disease [72]. The center involves the isolation of therapy to individual patients in the SMEP program which aims at teaching the individuals the skills needed to monitor their symptoms, deal with medication side effects and do well in the areas of physical exercise. In other words, it indicated that patients who joined the SMEP were the ones that showed the highest rates of self-efficacy, symptom management, and overall quality of life. Besides, a pilot project in the U.K. referred to Communication for Care (C4C) successfully implemented a structured communication protocol and an online support system to the program, thus enhancing patient understanding and involvement in care planning [73]. Patients who participated in a randomized controlled trial had better adherence to treatment and satisfaction in the C4C group than those who were in the control group, posing the need for the use of innovative strategies to aid patients in their cancer care.

2.3.4. Innovative models of care

Due to the development of Internet and Internet of Things (IoT) technologies, researchers have been interested in novel care models such as telecare and smart care among others, which have the potential to significantly reduce travel time and waiting time, among others, thus making life better for the treatment of cancer patients [74]. A case in point is the result of the application of wearable technology in telemonitoring studies where it was revealed that the real-time health status assessment of patients through wearable devices, facilitated the prompt identification and management of potential complications thus improving the patient's safety and satisfaction [75]. These technologies not only reduce the burden of frequent patient visits but also provide patients with the tools necessary to take control of their health loss of money, which reduces poverty.

One such example of telecare, the Smart Health Monitoring Network (SHMN), constitutes an innovative initiative with a total remote monitoring system that

targets advanced cancer patients [76]. This includes connective wearables which are worn on the body and mobile applications that collect vital signs, pain levels, and responses to medication from patients in real-time. Through the elucidation of this data, the SHMN can predict modifications in the patient's health status and give the timely alerts to the healthcare professionals. It was found from a two-year follow-up study that patients engaged in the SHMN experienced a 30% reduction in the frequency of emergency visits to healthcare providers, while overall patient satisfaction with care increased by 25% [77]. This particular example demonstrates that the technology of telecare is good not only for the efficient provision of healthcare but also for increasing the self-management skills and quality of life of the patients through patient empowerment.

By the same token, in the case of smart care, the developments in this area are so impressive that they demand our attention. I.e. intelligent care models for cancer rehabilitation like one mHealth app, which helps survivors suggesting the personalized rehabilitation programs and fits with artificial intelligence algorithms are developed [78]. Through the constant modification of training programs and health suggestions based on the patient's recovery status and response, the app aims at the patient's speedy recovery. The findings of this research make clear that the intelligent care model can deliver more precise and individualized care services to patients, which are the main route of the future development of cancer care.

2.3.5. Evaluation of the effectiveness of innovative approaches to patient empowerment

For quality care, it is necessary that psychosocial support of the patients is also evaluated. The impact of these interventions can be assessed by observing the patients' satisfaction, the level of their pain, their emotional status, and the food they eat. This data can be gathered by means of the regular follow-up visits and surveys which are held after the treatment.

2.3.6. Effectiveness of pain management programs

Pain management is indispensable to the care provided to cancer sufferers. Successful pain management is the key not only to the fading of patients' bodily unease but also to the enhancement of their emotional condition and overall life quality [79]. In spite of the fact that the results of studies differ a holistic approach which includes patient education, assessment of pain, and relief strategies, as well as psychological help indicated that a whole pain management program had strong therapeutic effects. The proven fact that holistic pain relief programs can not only allow a patient to survive in the most challenging of activities but also to heal the natural connection between pain, relief, and recovery is only through a deeper understanding of the actual suffering caused by the disease is evidence of such studies [80]. A controlled trial in which a patient empowerment strategy was employed to handle the pain of cancer patients was conducted and it was discovered that such trials decreased patients' pain scores by a significant amount [81]. Through patient education on pain diary maintenance and guiding of the patients in the co-creation of a personalized chronic pain reliever, patients' pain management skills were improved, which significantly decreased the pain's influence on their life. The most influential patient empowerment-oriented pain management program showed the highest pain control needs which, besides the increased quality of life, resulted in the lowest pain scores. This program was designed to empower patients by educating them on the appropriate use of technology-based pain management tools such as the pain diaries.

2.3.7. Effectiveness of psychological support programs

A vital part of the entire cancer patient's care is the psychological support. With personalized psychological assessments and interventions such as behavioral therapy, suggestive therapy, supportive-expressive group therapy, and group psychotherapy, patients can get a significant reduction in psychological distress, which consequently improves their mental health, and overall quality of life [82]. Psychological support has been established to be the most efficient in improving patients' quality of life, increasing self-efficacy, and thus lowering the levels of depression and anxiety. A study on the psychological well-being of cancer patients found out that the introduction of a psychological support program was associated with a significant reduction in patients' scores on the anxiety and depression scales [83]. The program that utilized regular psychological counseling and peer support groups was the one that was most successful in helping patients adapt to psychological changes.

2.3.8. Effectiveness of nutritional care programs

Nutrition is the primary approach to ensure the energy level sustains for the patient with cancer and the general state of health is also looked at. Inclusion of patients with enough nutrition may help them retain weight, maintain physical capabilities, and encounter less harmful effects of the treatment process. The presence of entire nutrition care programs has been illustrated to considerably change the poor nutritional condition of patients, thus, increasing their life quality and thereby affecting their full recovery course positively. The results of the nutritional care program evaluation show that patients had seen improvements in how well they were taking nutrition and also gained weight at the levels that are healthier [84]. Dietitians worked together with the patients to make dietary plans according to individual needs and preference. These practices got the kudos from the patients [85]. By this all-around nutrition change, the patients' status improved significantly but it also helped them returning to their physical functions. Additionally, it laid a strong nutritional foundation for the other treatments that were to follow.

2.3.9. Effectiveness of health education programs

Patient involvement and higher self-management capacity play an essential role in health education. As a result of the transmission of disease, options for treatment, and elements for health realignment health education, through which the patients become more knowledgeable and acquainted with their conditions, leading to compliance with the treatment regimens and reduction of the risk of complications [86]. Development programs have been successful in showing that health education can positively influence the capacity of the public to avoid, prevent and even engage in self-rescue and support each other mutually, also it can bring the benefits of health and safety protocols as well as the legal regulations into the awareness of community members [87].

2.3.10. Effectiveness of the Family Care Participation Program

It has been found that the participation of families in nursing is a method to provide not only emotional support but also practical help in the form of reducing the psychological stress level and increasing the quality of life. An optimistic nursing environment is well-nigh impossible without family participation in caring for the patients, which in the long run leads to patients' confidence and satisfaction getting a boost while also increasing the nurse's performance [88]. At the same time, family participative approach is one of the major determinants of improved communication and collaboration among family members, and thus, provides more supportive

services to families [89].

3. Discussion and outlook

Despite the technological advances made in cancer care practices, the practical challenges related to patient empowerment need to be taken very seriously. Patient factors such as their subjective willingness, cultural background, and educational background can pose complex challenges to the empowerment process and in turn, affect the final outcomes. At the same time, the level of understanding and practicability among healthcare professionals about patient empowerment can be different for which there should be improved teaching practices and educational programs. Among the wide range of psychosocial needs encountered by cancer patients, a custom-made nursing intervention is extremely beneficial. Future research should concentrate on how interventions can be tailored and dynamically adapted to the unique circumstances of patients. Sustained adherence to patient empowerment interventions is essential for achieving optimal outcomes, thereby rendering the sustainability of these interventions a critical focus in practice.

To thoroughly investigate the intrinsic mechanisms and effects of patient empowerment, future research should employ a more diverse array of methodologies, including qualitative and mixed-methods approaches. Furthermore, the implementation of multidisciplinary collaboration in patient empowerment interventions is essential. In-depth cooperation among experts in psychology, sociology, public health, and clinical practice will significantly advance the understanding and development of the concept of patient empowerment. The rapid advancement of information technology presents new opportunities for enhancing patient empowerment; thus, exploring empowerment tools that leverage the Internet, mobile applications, and other technological innovations will substantially improve the convenience and accessibility of interventions. Additionally, conducting cost-benefit analyses will provide critical insights for policymakers and healthcare organizations, thereby facilitating the broader adoption of patient empowerment strategies.

Furthermore, given the variability of patient empowerment across diverse cultural contexts, future research should investigate the implementation of patient empowerment strategies that respect cultural diversity and their applicability in various countries and regions. Through these discussions and perspectives, we seek to offer new insights and directions for the advancement of psychosocial care interventions in cancer treatment, particularly innovative approaches to enhancing patient empowerment.

4. Limitations

This review has several limitations. First, the literature search was restricted to selected databases and English- and Chinese-language publications. Second, no formal methodological quality assessment of included studies was performed. Third, the heterogeneity of study designs and intervention approaches may limit the generalizability of the findings. Future studies employing systematic review methodologies and quantitative synthesis are warranted to strengthen the evidence base for patient empowerment interventions in cancer care.

5. Conclusion

Patient empowerment has emerged as a central component of psychosocial

care in oncology. Evidence reviewed in this study suggests that empowerment-oriented interventions can improve self-management abilities, treatment adherence, psychological well-being, and overall quality of life among patients with cancer. As healthcare systems continue to move toward patient-centered models of care, integrating empowerment strategies into psychosocial nursing practice may contribute to more effective and individualized cancer care. Future research should further explore innovative technologies and multidisciplinary approaches to enhance patient engagement and optimize psychosocial outcomes.

Author contributions: The author contributed entirely to this work and approved the final manuscript.

Funding: None

Ethical approval: Not applicable

Informed consent statement: Not applicable.

Conflict of interest: The author declares no conflict of interest.

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