Psychodietetics in oncology practice: strategies for coping with eating difficulties

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Abstract:

Given the rising incidence of cancer, nutritional problems pose a significant challenge in the care of cancer patients. Appetite disturbances, taste alterations and smell, dysphagia, and vomiting often lead to malnutrition and cachexia, which may worsen the course of treatment, reduce treatment tolerance, and negatively affect quality of life. In response to these complex challenges, we propose a psychodietetic approach – combining nutritional interventions, psychological support and psychosocial aspects.

In this article, we outline strategies that can support cancer patients: modifying the consistency of food, tailoring meals to individual needs, taking taste preferences into account, creating a supportive mealtime environment, providing nutritional education for patients and their families, as well as psychosocial interventions – to counteract aversion to food, reduce stress, stimulate appetite and improve the relationship with food. A multimodal approach to treatment, including psychodietetic strategies, should be an integral part of modern oncology – from diagnosis through to recovery.

Introduction

Cancer represents a growing challenge for public health systems worldwide. According to the latest report from the International Agency for Research on Cancer (IARC), based on data from the GLOBOCAN database, there were approximately 19.3 million new cases of cancer and nearly 10.0 million cancer-related deaths in 2020 [1]. At the same time, it is predicted that, as populations age and demographic changes take place, the global burden of cancer will continue to rise.

Given the epidemiological scale of the problem, standard cancer treatment – whilst essential – often proves insufficient. Increasing attention is being paid to the need for complementary care, which takes into account aspects of nutrition, nutritional status and gastrointestinal function, as well as psychological and psychosocial factors [2].

Cancer and its treatment are often associated with nutritional and eating disorders. Difficulties with eating may be of a physical nature (e.g. cachexia, dysphagia, xerostomia, vomiting, nausea), but the psychosocial aspects of eating difficulties are equally significant: loss of appetite, taste alterations, fear of eating, distorted body image, and emotional distress [3]. Inadequate nutrition leading to malnutrition worsens clinical status, reduces treatment efficacy, increases the risk of complications and infections, impairs wound healing and recovery, and, in patients with advanced disease, may contribute to mortality.

The current literature lacks data on the prevalence of eating disorders classified according to DSM-5 and ICD-11 among patients with cancer [4]. Therefore, in addition to medical and dietary interventions, the need for a psychodietetic and psychosocial approach to nutritional problems among patients with cancer is increasingly emphasized.

The integration of multidisciplinary teams into oncology care appears to be essential. Ensuring access to a psychologist, psychotherapist, dietitian, psychodietetics specialist, and, when necessary, a psychiatrist. Such an approach could significantly improve treatment outcomes and, in particular, enhance the quality of life of patients with cancer. This could be achieved by recognizing the importance of mental health disorders, including anxiety, depression, and eating disorders, both in the diagnostic process and in their impact on treatment outcomes.

In this article, we discuss the concepts, challenges and possible strategies for psychodietetic interventions in the treatment of cancer patients.

Methodology

This article is a narrative review. To gather the relevant material, a non-systematic literature review was conducted using the PubMed and Google Scholar databases. The search strategy involved combining terms such as: *'cancer cachexia', 'eating-related distress', 'psycho-oncology' oraz 'multidisciplinary support cachexia, 'nutritional support', 'psychosocial suport in cancer', 'supportive care in cancer'*. Particular attention was paid to publications integrating metabolic and psychosocial aspects (the psychodietetic approach) and to the latest clinical guidelines (ESPEN, ASCO) for 2020–2025.

Characteristics of eating disorders in cancer patients

The causes of eating disorders are usually multifactorial [5]. Patients usually experience chronic fatigue, a decline in physical function and nutritional disorders. Metabolic alterations, inflammation, catabolism, loss of appetite, taste alterations and smell, nausea, vomiting, pain, early satiety, swallowing difficulties, discomfort during eating, xerostomia, and dysphagia may lead many patients to avoid eating or consume only very small amounts of food. Consequently, malnutrition, severe weakness, muscle wasting, impaired immune function, delayed wound healing, and physical and psychological exhaustion may develop.

Eating disorders in patients with cancer are also frequently associated with anxiety, stress, depression, changes in social and family roles, difficulties adapting to the illness, concerns about treatment and its side effects, changes in body image and self-esteem, as well as feelings of guilt or frustration resulting from the inability to eat. Such difficulties can affect relationships with loved ones, leading to conflicts, a sense of helplessness, a constant struggle and uncertainty [6,7].

In a study by Amano et al., more than 60% of patients' relatives reported that they worried every day about planning meals for the patient, whilst 72.2% stated that they needed support with dietary advice [7]. Observations have shown that the psychological and emotional strain associated with eating also affects the carers themselves. The authors noted that caregivers' anxiety regarding the patient's nutritional intake (the so-called "eating--related distress") stems largely from a sense of responsibility. These included worry, anxiety, feelings of guilt, the perceived need to pressure the patient to eat, interpersonal conflict, and stress. Respondents reported feeling compelled to pressure their relatives to eat and to explain that the patient needed to eat in order to survive. They also experienced guilt over the considerable efforts they made to help the patient eat, while food-related issues frequently became a source of conflict with close family members. Studies highlight that many family members of patients with advanced cancer experienced high levels of stress related to eating and needed support [7,8].

Taste and sensory perception disturbances (dysgeusia, taste alterations, smell, and appetite)

In patients with cancer, particularly those undergoing chemotherapy or radiotherapy, disturbances in taste perception are very common. These may include reduced or complete loss of taste, a metallic taste in the mouth, bitterness, alterations in olfactory perception, and taste alterations preferences. Depending on the type of treatment, up to 64% of patients experience dysgeusia, which may contribute to a significant reduction in appetite and food intake

[9]. Taste alterations in patients with cancer often result from the toxic effects of treatment on taste bud cells and damage to the oral mucosa and salivary glands, leading to impaired regeneration of oral epithelial cells and reduced saliva production. Inflammatory reactions may be sufficiently severe to cause extensive and serious ulceration associated with intense pain, further impairing food intake. Taste disturbances are often accompanied by reduced appetite and the sensation that food is difficult to swallow or seems to "expand in the mouth". Negative experiences associated with eating (nausea, a metallic taste, pain, discomfort) may lead to an aversion to food, avoidance of meals and, consequently, to worsening malnutrition, anorexia and cachexia [10]. In the context of psychodietetics, taste alterations often also affect one's emotional relationship with food: food can be a source of stress, anger or sadness, which needs to be taken into account in a support plan.

Nausea, vomiting, gastrointestinal symptoms, dysphagia (difficulty swallowing)

Gastrointestinal symptoms, including nausea, vomiting, early satiety, bloating, motility disorders, and dysphagia, are particularly common in patients with gastrointestinal, head, and neck cancers, as well as in those undergoing chemotherapy or radiotherapy. These symptoms may result from the effects of the tumor on the body, gastrointestinal obstruction, compression of digestive organs, the presence of metastases, and the toxic effects of treatment, including tumor cell breakdown and the release of toxins.

Cytotoxic drugs vary in their emetogenic potential. Nausea and vomiting may also be influenced by intestinal dysbiosis, hypoglycemia, and dehydration. Cancer treatment that damages the cells of the oral mucosa, esophagus, or intestines, as well as the salivary glands, may cause pain, xerostomia, and ulceration, further exacerbating symptoms and limiting both food intake and nutrient absorption. All these symptoms may lead to food aversion, fear of eating, and food avoidance. Gastrointestinal disorders and difficulty swallowing may prevent from consuming sufficient food – which, in the presence of a metabolic disorder, very quickly leads to a worsening of malnutrition / cachexia. These problems exacerbate patient distress through pain, discomfort, fear of eating, and fear of nausea and vomiting, potentially leading to social isolation, depression, and reduced quality of life. These problems often require medical interventions (e.g., symptomatic treatment and nutritional support through enteral nutrition [EN] or parenteral nutrition [PN]), as well as a psychodietetic approach to help patients overcome fear, modify their diet (in terms of texture and consistency), and adapt feeding methods.

Psychosocial and emotional difficulties with eating

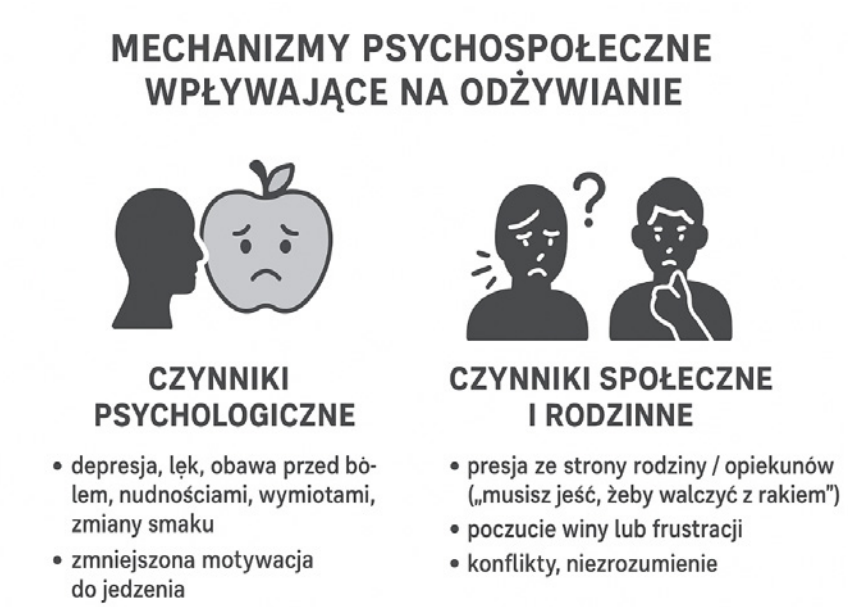
Cancer is often associated with stress, anxiety, depression, changes in social roles, altered body image (weight loss and changes in body shape), and concerns about treatment, its side effects, and what and how to eat.

Under normal conditions, eating activates the reward system, improves mood, stimulates the parasympathetic nervous system (the so-called "stress-buffering effect of eating"), and reduces ghrelin levels. A meal satisfies hunger and provides positive sensory stimulation through its taste, smell, and appearance. Food intake influences the serotonergic system by increasing the availability of tryptophan in the brain and activating the gut–brain axis, which may improve mood. In most healthy individuals, eating serves an emotion-regulating function and provides a sense of pleasure [11]. In patients with cancer, however, the situation may be markedly different. Eating may not only fail to provide positive experiences but may also become associated with illness, suffering, pain, and nausea, leading to meal avoidance, social isolation, feelings of guilt ("I am not eating, even though I should"), frustration, and reduced psychological well-being.

Psychosocial mechanisms influencing nutrition

The process of food intake in patients with cancer is complex and extends far beyond the physiological

Body image disorders



MECHANIZMY PSYCHOSPOŁECZNE WPŁYWAJĄCE NA ODŻYWIANIE	PSYCHOSOCIAL FACTORS INFLUENCING NUTRITION
CZYNNIKI PSYCHOLOGICZNE	PSYCHOLOGICAL FACTORS
depresja, lęk, obawa przed bólem, nudnościami, wymiotami, zmiany smaku	depression, anxiety, fear of pain, nausea, vomiting, changes in taste perception
zmniejszona motywacja do jedzenia	reduced motivation to eat
CZYNNIKI SPOŁECZNE I RODZINNE	SOCIAL AND FAMILY FACTORS
presja ze strony rodziny / opiekunów („musisz jeść, żeby walczyć z rakiem")	pressure from family members/caregivers ("you need to eat to fight cancer")
poczucie winy lub frustracji	feelings of guilt or frustration
konflikty, niezrozumienie	conflict and lack of understanding

regulation of appetite. Eating behaviour is strongly influenced by psychological, emotional and social factors, which can either support or disrupt food intake. Anxiety, depression, changes in body image, social pressure, and tensions within family relationships often lead to food avoidance, loss of appetite, or even food aversion. Understanding these mechanisms is essential for planning psychodietetic interventions and providing effective support to patients and their families.

In patients with cancer, changes in physical appearance, such as weight loss, reduced muscle mass, loss of subcutaneous tissue, altered body proportions, edema, pallor, skin changes, and hair loss, may have profound psychological consequences. These changes may also contribute to alterations in eating behaviors through this mechanism. The most common include:

- reduced self-esteem and loss of perceived attractiveness,
- a sense of losing control over one's own body,
- shame related to physical appearance, particularly when eating in the presence of others,
- social withdrawal, avoidance of shared meals, and isolation,
- depression, anxiety, and anhedonia, which further reduce motivation to eat,
- impaired perception of hunger and satiety cues, exacerbated by negative emotions,
- the perception of eating as "pointless" when the body continues to lose weight regardless, as is

often observed in cancer-associated cachexia syndrome (CACS).

Consequently, a disturbed body image may become a factor exacerbating cancer-related anorexia, as patients may:

- eat less due to discouragement or a lack of belief that eating "will make any difference",
- avoid eating in social situations,
- feel more stress around mealtimes.

Psychological support and psychoeducation are essential, helping patients and their close relatives understand the causes of eating difficulties, accept changes, reduce stress, and improve communication and relationships surrounding food and eating. Individualizing nutritional care may be particularly important in this context, taking into account the patient's taste preferences, food consistency and texture, eating habits, and psychological comfort. A change in attitude, viewing food not merely as a "medical necessity" but as an attempt to restore an element of pleasure, normality, dignity and control, which may improve motivation to cooperate and maintain food intake.

CACS

In patients with cancer, progressive malnutrition, inflammation, and symptoms associated with the disease and its treatment may often lead to cancer anorexia–cachexia syndrome (CACS). The most widely accepted and frequently cited definition of cachexia is the 2011 consensus statement by Strasser, Fearon, et al.: *Cancer cachexia is a multifactorial syndrome characterized by progressive loss of skeletal muscle mass, with or without loss of fat mass, that cannot be fully reversed by conventional nutritional support and leads to progressive functional impairment*[12,13].

There are three stages of cachexia in cancer: pre-cachexia established cachexia refractory cachexia.

Diagnostic criteria for cachexia according to SEOM [13]:

- **Pre-cachexia**: early symptoms – e.g. anorexia (loss of appetite), metabolic changes, but **weight loss <5%**.
- **Cachexia** ("full-blown" cachexia): weight loss >5% or (at BMI <20 kg/m^2) weight loss >2% over a shorter period, or the presence of sarcopenia + weight loss >2%, accompanied by inflammation, reduced food intake and metabolic disorders.
- **Refractory cachexia (irreversible cachexia)**: advanced catabolism, severely limited functional capacity, usually a poor prognosis; nutritional interventions are aimed solely at providing comfort.

Chronic tumour-associated inflammation plays a key role in the pathogenesis of cancer, as does the release of pro-inflammatory cytokines (e.g. IL-1, IL-6, TNF-), which have catabolic and anorexigenic effects. Enhanced proteolysis and lipolysis, together with inhibition of muscle protein synthesis, lead to the loss of muscle and fat mass. In addition to inflammatory cytokines, other factors, such as hormones and appetite regulators, may also play an important role [14].

It is increasingly recognized that CACS is not attributable to a single factor (e.g., inflammation) but rather results from a complex interplay of immunometabolic, hormonal, and neural mechanisms, often depending on the cancer type, disease stage, and individual patient response. This indicates that interventions must be multidimensional and tailored to the individual patient, for example, by reducing inflammation, modulating appetite--regulating hormones, and providing individualized nutritional support, including clinical nutrition, typically with immunomodulatory components [15].

In cancer cachexia, both metabolism and energy homeostasis are disrupted. Resting energy expenditure is often increased, while early satiety, nausea, glycemic disturbances, and postprandial pain may further reduce food intake [16,17].

CACS develops in up to 80% of patients with advanced cancer. The prevalence of cancer cachexia is correlated with tumor type: approximately 80% of patients with pancreatic and gastric cancer are affected, compared with 54–60% of patients with lung, prostate, and colorectal cancer and 32–48% of patients with breast cancer, lymphoma, and sarcoma. Deaths directly attributable to cachexia account for

a significant proportion – over 20–30% of cases [13]. The algorithm for psychodietetic care of patients with cancer cachexia should include:

1. **Screening** → systematic assessment of nutritional status and appetite from the time of diagnosis (using NRS 2002 or SGA).
2. **Identifying barriers and difficulties** → distinguishing between biological causes (e.g. inflammation) and psychological causes (e.g. depression, anxiety, family pressure).
3. **Determining the stage and severity of malnutrition** → assessing whether the patient is in the pre-cachexia, cachexia or refractory cachexia (according to SEOM/Strasser).
4. **Multimodal intervention:**
   - *Medical:* Anti-inflammatory and pain-relieving treatment.
   - *Nutritional:* A high-protein, immunomodulatory, nutrient-dense diet, oral nutritional supplements (ONS), and consideration of clinical nutrition support.
   - *Psychodietetic:* Educating patients and their families about the ineffectiveness of "forcing patients to eat" in cancer cachexia.
5. **Monitoring the patient's condition** → assessment of quality of life, emotional well-being, dietary intake, and functional status, rather than body weight alone.

Strategies for supporting patients and their loved ones

Studies evaluating non-pharmacological interventions for the treatment of CACS have shown that both dietary interventions and physical exercise improved quality of life, reduced patients' fatigue and improved lean body mass. A systematic review of non-pharmacological interventions for CACS, including nutritional counseling, education, and physical activity, reported that behavioral interventions and a focus on quality of life may provide benefits, including improved appetite, reduced weight loss, and better overall functioning. The importance of commencing nutritional interventions as early as possible in order to maximise the potential benefits is also emphasised. Involving the patient in the care process is also essential, as active participation may improve adherence to recommendations, facilitate the personalization of strategies, and enhance treatment efficacy [18]. Systematic monitoring of nutritional status should be implemented from the time of cancer diagnosis, rather than waiting for substantial weight loss to occur. Screening should include appetite, dietary intake, inflammatory markers, and body composition assessment (muscle mass and adipose tissue). Interventions should adopt a multidimensional approach, encompassing not only a high-calorie, high-protein diet but also anti-inflammatory measures, strategies to modulate appetite and metabolism, physical activity where feasible, and psychodietetic support. When educating patients: it should be explained that "anorexia-cachexia" in oncology is not the same as primary eating disorders ("psychological" anorexia); the mechanisms involved are biological and metabolic, and the patient will often not regain weight simply by being "forced to eat".

For patients with CACS, the psychodietetic strategy must be multidimensional, as dietary modification alone is often insufficient. An intervention addressing eating behaviors, the patient's psychological well-being, appetite perception, and comfort during food intake is required [18].

Psychoeducation for patients and their loved ones

The aim of psychoeducation is to promote understanding of the causes of eating difficulties, metabolic alterations associated with the disease, the effects of treatment on nutritional status and symptoms, and the etiology of anorexia and cachexia. It is also important to prevent patients from being forced or pressured to eat and to reduce their feelings of guilt. Families are often unprepared for eating-related difficulties and may respond with pressure, guilt, or frustration, thereby exacerbating patient stress and interpersonal conflict. Therefore, it is important to educate not only the patient but also, where possible, their immediate social environment and caregivers [19].

- It should be explained that reduced appetite and weight loss result from biological processes (pro-inflammatory cytokines, pain, and hormonal changes), rather than a "lack of willingness to eat," ill will, or the patient simply "being difficult."
- Stress, anxiety and worry are a natural reaction to illness. It is worth discussing the link between stress and appetite, food intake, body weight and general well-being. As a result, the patient and those around them may feel less pressure to feel guilty or to be self-critical.
- Families should be advised not to pressure patients to eat, as such pressure increases stress and exacerbates anorexia.
- Use supportive, empowering language, such as "eat to maintain energy and strength" rather than "you must eat so that you do not die."
- It is also important for healthcare professionals to understand the fundamentals of psychoeducation and adopt a unified therapeutic approach, providing consistent messages so that patients feel comprehensively supported and understood. Training healthcare professionals in empathy and understanding is essential.

A summary of clinical problems addressed through a multidimensional intervention approach is presented in Table 1.

Psychological support and/or psychotherapy, e.g. with a psycho-oncologist

The aim of psychological support or psychotherapy is to reduce stress, improve collaboration in oncological treatment, and promote the patient's active involvement in care.

Table 1. A Multidimensional Perspective on Nutritional and Psychodietetic Issues in Oncology Patients

Clinical problem	Mechanism (cause)	Dietary intervention	Psychological/behavioural intervention
Cancer-related anorexia	Pro-inflammatory cytokines (IL-1, IL-6, TNF--), disturbances in energy homeostasis, the effect of tumour cell metabolites, psychological stress	Small, frequent meals; high energy and nutritional density; ONS; meal presentation	Psychoeducation (explaining the biological causes of loss of hunger); relaxation techniques before meals
Dysgeusia (altered taste perception)	Treatment-related toxicity and damage to taste buds and salivary glands	Avoiding metal cutlery; using acidic condiments or marinades; serving foods at moderate temperatures	Working on accepting changes; identifying new "safe" flavors; practicing mindfulness while eating
Fear of eating / nausea	Learned food aversion; fear of pain or vomiting after meals	An easily digestible diet; avoidance of strong odors; modification of food consistency	Cognitive behavioral therapy (CBT); desensitization; addressing catastrophic thoughts
Body image disturbance	Rapid loss of muscle mass (sarcopenia) and adipose tissue	Increasing protein intake; metabolic support (e.g., omega-3 fatty acids); tailored physical activity	Support in coping with grief over one's "former appearance"; strengthening the sense of agency and control.
Eating-related distress (family)	Caregivers' sense of responsibility; pressure exerted on the patient	Educating families on the choice of food and ways of serving meals, and the atmosphere at mealtimes	Communication workshops; working on relieving pressure ("food isn't the only way to show love"; illness must not cause "stress around eating")

- For example, cognitivebehavioural therapy (CBT), working on thoughts, fears, fear of eating, and catastrophic thoughts (e.g. "if I don't eat, I'll die sooner", "food tastes bad because I'm ill")
- Motivational interviewing (MI) in dietary counseling: setting small, realistic goals, such as "adding one snack per day" or "including a well--tolerated protein source in every meal."
- Managing stress and anxiety associated with eating through breathing exercises, body--based interventions (e.g., dance movement therapy), walks in nature before meals to stimulate appetite and/or after meals to gently reduce tension and physiologically improve intestinal blood flow to support peristalsis, and mindfulness during meals.
- Tracking progress and positive reinforcement: e.g. a food diary in which small successes are noted (eating a meal, feeling more energetic).
- Group support: where available, patients can share strategies for, amongst other things, managing anorexia and nausea.

Strategies for improving appetite and reducing negative emotions associated with eating:

It is important that the approach to improving appetite and increasing energy and nutrient intake is carried out in a way that is as comfortable as possible for the patient. Patients may find it difficult to accept these changes, and may avoid taking supplements or using nutritional support; they may feel ashamed, anxious, or a sense of failure or humiliation because they "cannot eat normally". Nutritional support and dietary education should include:

- Natural products should be the first choice; only then should you consider supplements.
- Spreading meals out into smaller portions eaten more frequently – ensuring they are highly nutritious, e.g. 5–6 smaller meals instead of 2–3 large ones
- Replacing "empty calories" with nutrient-rich snacks – for example, instead of rusks, crackers or pretzel sticks – try nutritious, high-protein smoothies made with your favourite fruits and peanut butter, or a baked dish with low-fat mozzarella and homemade pesto
- Emphasizing that easily digestible meals do not have to be bland. In most cases, not only are there no contraindications to using fresh or dried herbs and spices, but their addition is actually recommended. Examples include dill, parsley, fresh coriander, rosemary, oregano, basil, thyme, cinnamon, vanilla, turmeric, and fresh or dried ginger.
- Meals should be presented in the most aesthetically pleasing and appealing way possible, for example, by using attractive decorative plates and colorful napkins.
- Whenever possible, patients should be provided with the most pleasant dining environment achievable. This may include eating at a table rather than in bed, using an attractive tablecloth and tableware, playing favorite music in the background, and lighting candles.
- Paying attention to the temperature and consistency of the meal. Preferences may vary depending on the stage of treatment and the condition. In cases of sensitivity to smells, cold meals or those served at room temperature are often better tolerated.
- The texture of food is also important. Some patients may complain of xerostomia (dry mouth) or dysphagia, pain when swallowing; some experience psychological difficulties with eating and may feel as though food is "expanding" in their mouth; inflammatory lesions in the mouth may cause pain when consuming hot, salty, acidic or spicy foods.
- The impact of food odors: strong aromas may exacerbate nausea and even trigger vomiting, particularly when associated with previous episodes of vomiting or other unpleasant symptoms. Fried or boiled meat may be especially aversive. In such cases, using an extractor hood or ventilating the room where meals are prepared may be helpful.

Regular assessment of nutritional status, implementation of dietary modifications, and consideration of foods for special medical purposes

or, where necessary, clinical nutrition support. Ongoing assessment of meal tolerance and symptoms that interfere with dietary intake, together with multidisciplinary collaboration among dietitians, psychologists, psychodietetic specialists, oncologists, and rehabilitation specialists, should constitute a fundamental component of care for patients with cancer. Dietary counseling should be available at every stage of cancer treatment, from the time of diagnosis through active treatment to recovery or palliative care. Regular assessment of nutritional status (dietary history, anthropometric measurements, and dietary intake analysis) and identification of risk factors, including weight loss, anorexia, and eating difficulties, are fundamental to enabling the early implementation of interventions [20]. Dietary counseling should be individualized, taking into account the type and stage of cancer, the treatment modality, the patient's ability to tolerate oral intake, and their food preferences and dietary habits. Psychosocial interventions (e.g. psychoeducation, psychological support, nutritional education) aimed at helping the patient and their loved ones to cope with anxiety, stress, frustration, taste alterations, loss of appetite and refusal to eat. social functioning, as well as the patient's psychological state. The nutritional and psychodietetic plan should be tailored to the individual patient's circumstances, including age, sex, disease stage, treatment modality, preferences, psychological well-being, and family and social situation [20].

Ensuring an eating-friendly environment

It may be helpful to make it easier for the patient to eat and to reduce factors that discourage or hinder eating:

- A quiet, peaceful place to eat, with no pressure, no TV, no noise and no rush
- Attractive presentation of meals, colourful plates, decorations, and small portions served in an aesthetically pleasing manner.
- Eating at a convenient time: for example, when the patient is experiencing the least discomfort

Medical treatment, supplementation

In cases of cachexia, dietary and psychological interventions alone are not sufficient. Improving patients' health status and quality of life requires a multimodal approach that also incorporates pharmacological treatment, including interventions to stimulate appetite, slow the progression of muscle loss, and reduce inflammation. The pharmacological agents most commonly used in the treatment of cachexia include glucocorticoids and megestrol acetate [21]. High-dose omega-3 fatty acid supplementation may also provide benefits. These not only exhibit anti-inflammatory properties, but also indirectly reduce the proteolysis of muscle tissue and may have a positive effect on the patient's appetite [22]. From a nutripsychiatric perspective, it is worth noting that low levels of polyunsaturated fatty acids, including omega-3, correlate with a higher incidence of mental health conditions, such as depression and anxiety disorders. Omega-3 fatty acids play a role in the development of neurons, the synthesis and proper functioning of neurotransmitters, and may reduce neuroinflammation; as such, they are of particular importance in terms of the patient's quality of life and well-being [23].

Limitations and directions for further studies

This study is a narrative review, which constitutes its main limitation in the context of the hierarchy of scientific evidence (EBM). The psychodietetic support strategies presented here are based on a synthesis of the available literature and clinical guidelines, which, in the GRADE classification, largely corresponds to expert opinion and evidence of lower certainty. In order to formulate binding clinical recommendations and accurately assess the balance of benefits and risks of individual interventions, it is essential to conduct future systematic reviews and randomised controlled trials (RCTs) focusing on specific groups of cancer patients

Summary

Multidisciplinary collaboration – involving professionals such as a dietitian, psycho--oncologist (or psychologist/psychotherapist), oncologist, physiotherapists, a nurse, and medical

caregivers – forms a team that can effectively support a patient in managing nutritional and emotional challenges.

It is worth emphasizing that involving family and caregivers in the process can prove to be an additional source of support. It is advisable for therapists to also include education for immediate family members. Studies suggest that family-centred support can improve energy and protein intake, improve nutritional status, reduce "food-related stress" and enhance quality of life [18]. Encouraging the patient to take an active part in meal planning – by incorporating their taste preferences and avoiding pressure – often helps to restore the pleasure of eating and rebuild healthy eating habits [20].

As indicated primarily by patient feedback, dedicated psycho-dietetic support is often lacking within standard oncological care, while nutritional counseling is frequently limited to general recommendations (such as "eat whatever you feel like eating").

Given the complexity of eating disorders in cancer – encompassing metabolic, psychosomatic, and psychosocial aspects – a holistic and interdisciplinary approach appears essential for providing effective support to patients.

Incorporating psychoeducation, psychosocial support, and nutritional counseling from the moment of diagnosis – along with the active involvement of the patient and their family – can help improve dietary intake, nutritional status, quality of life, and the course of treatment.

At the same time, there is an urgent need for more (randomised, prospective) studies assessing the effectiveness of psychodietetic interventions in cancer population. The implementation of the described strategies into standards of care (e.g., within the framework of health programs) should be preceded by an evaluation conducted in accordance with AOTMiT methodology, in order to precisely determine the cost-effectiveness and clinical efficacy of the proposed psychodietetic interventions.

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