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The Health, Information & Meditation in Oncology (HIMO) Method as an Integrative Approach in Cancer Treatment

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Abstract

A diagnosis of cancer and its consequences represent a destabilizing experience for patients and their families. The impact of the disease is not limited to physical symptoms but involves also a wide range of psychological, emotional, social and spiritual aspects (Gurevich M, et al. (2002) Koopman C, et al. (2002), Mehnert A, et al. (2018). Emotional distress is very often observed in cancer patients and is associated to decreased quality of life, satisfaction with medical treatment outcomes and compliance with therapies (Han JA, et al. (2005), Roth AJ, et al. (1998); Lam WW, et al. (2013), Berry DL, et al. (2015). Additionally, the load is further increased by practical and informative needs (Harrison D, et al. (2009; Howell D, et al. (2012). The aim of this work is to present an integrative method for the support of the oncologic patients, developed in 2003 and widespread by the Oncologic Department of the AUSL of Bologna, part of the National Health Service: the Health, Information, and Meditation in Oncology (H.I.M.O.) Method. The method is based on three pillars: providing patients with proper and updated medical information on the care path; providing patients with information on a healthy lifestyle, especially nutrition and exercise; teaching a meditation practice that can help patients to better cope with the experience of illness, promoting wellbeing on a psychological and emotional level. These aspects were found to positively affect patients' treatment outcomes satisfaction, quality of life, adherence to therapies, physical and psychological responsiveness to treatment (Cooper H, et al. (2001), Couturaud F, et al. (2002); Faller H, et al. (2016), Grahn G (1996), Schwedhelm C (2016), Courneya KS (2003), Goleman D (1976), Simonton C 1980). Feedbacks from patients seem to confirm the success of the method, which is considered a Mind-Body Medicine method simultaneously operating on the mental, psychological and spiritual dimensions.

Keywords: Cancer integrative treatment; Supportive Care in Oncology; Health information; Meditation in Oncology; Psycho-Oncology; Distress

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Introduction

The global incidence of cancer has steadily increased over the last decades and represents a challenge for the continuous effort aimed at increasing not only patients' survival rate but also their quality of life [1]. A diagnosis of cancer and its consequences represent a destabilizing experience for patients and their families. Diagnosis is in fact considered a traumatic and highly stressful event, which often strains the coping skills of all the involved actors to the limit. Side effects to therapies and physical symptoms can heavily impact patients' private, social and working life [2]. Among them, a rather high number of patients report fatigue [3], pain [4] and a variety of functional symptoms, including the worsening of mobility and cognitive skills [5,6]. However, the impact of the disease is not limited to physical symptoms but involves also a wide range of psychological, emotional, social and spiritual aspects. It is estimated that 80% of oncologic patients' present stress-related symptoms [7,8] and that one out of two patients presents significant levels of psychological distress, especially anxiety and/or depressive symptoms [9,10]. Emotional distress is in turn associated with a worsening in terms of quality of life, satisfaction with medical treatment outcomes and compliance with treatment [11-14]. The load is further increased by the practical and informative needs [15,16], which often do not find a prompt response. The sum of these aspects can negatively affect individual coping skills and reduce patient adherence to treatment [17]. A systematic review published by Fiszer C, et al. 2014 [18], conducted on 23 studies investigating patient's perceived needs during cancer treatments in women with breast cancer, has detected medical information and emotional/psychological needs to be the most frequently and intensely reported ones. Based on the existing literature, it is possible to state that interventions aimed at addressing information and emotional needs, alongside medical treatments, are of significant importance in order to support the delicate phase of adaptation to the diagnosis and therapies. In particular, opportunities such as providing proper information on the disease and different stages of the care path [19], the adoption of a healthy lifestyle and a regular meditation practice proved to positively impact patients' treatment outcomes satisfaction, quality of life, and adherence to treatment, physical and psychological responsiveness to therapies. The aim of this article is to

present a holistic method of integrated information and meditation in Oncology, developed within the Italian National Health Service and called "Armoniosa Mente". In Italian, this word is an adverb made of two concepts - Harmony and Mind – suggesting that the method aims at supporting the oncologic patients during treatments, creating harmony through the mental processes. For a better definition, the term has been translated into "Health, Information & Meditation In Oncology" Method (H.I.M.O.). The H.I.M.O. A method is adopted in various Oncologic Departments across Italy and addresses the above-mentioned opportunities: 1) Medical Oncology Information about the different stages of the care path, 2) Information/Education on a Healthy Lifestyle and 3) the practice of a specific meditation from the Tibetan Medicine tradition. The method is taught to psychologists, psychiatrists, and oncologists through specific training courses organized by the Oncologic Department of the Bellaria Hospital, part of the Bologna A.U.S.L. (Local Health Unities Organization).

Medical Information in Oncology

A cancer diagnosis often marks the beginning of a complex and articulate care pathway. Patients frequently face difficulties in collecting information and gaining a clear understanding of the various therapeutic steps. A review conducted by Fiszer C, et al. (2014) [18] shows how the need for medical information was reported as "primary" by 70% of participants affected by breast cancer. Similar data are highlighted in a systematic review conducted on elderly oncologic patients, where medical information emerges as one of the fundamental needs [20]. The same necessity has been measured in Italy on hospitalized and non-hospitalized patients [21,22]. Existing literature has identified specific factors associated with higher informative needs, including young age, female gender, low educational level, living alone and a recent diagnosis [23]. Some authors believe proper medical information to be an essential component of an effective therapeutic strategy, as it helps patients facing complex, intense and long-lasting therapies [24,25]. Proper medical information helps to emotionally contain, to control feelings of uncertainty and to strengthen the perceived sense of control [23,26]. It also plays a role in helping patients adopting a more active role in their therapies by facilitating decision-making processes [19,23]. A study conducted by Grahn G (1996) evaluated the effects of an 8-sessions informative protocol on 127 oncologic patients, showing significant improvements in terms of disease-related knowledge and awareness, including also the different treatment options and potential obstacles [26,27]. Participants from these studies also reported a lower perceived sense of bewilderment and confusion and a higher predisposition towards more constructive behaviour. Although current literature presents informational needs among the most felt needs, a significant portion of patients do not consider the received information to be sufficient to allow active decision-making [15,28]. In this sense, a systematic review published by Harrison D (2009) investigating the most common unmet needs in 57 studies found that a lack of information was reported by 93% of participants [15].

Healthy Lifestyle in Oncology

Extensive evidence supports the important role of healthy lifestyle-related choices in cancer prevention, with greater attention given to diet and exercise [29,30]. It is widely accepted that an unhealthy diet, a lack of physical activity, high alcohol consumption and excessive body fat represent risk factors for cancer development [31-33]. Besides the preventive aspect, research is more and more focusing on studying the role that diet and exercise can play in improving the condition of oncologic patients subject to therapies and in preventing future relapses [31,34]. In fact, "host factors" such as metabolic and inflammatory factors are increasingly demonstrating to play a crucial role in outlining clinical outcomes of cancer [35-39].

Diet: Both disease and treatments can cause important metabolic and physiological alterations and, consequently, can significantly impact individual nutritional requirements. Therapies can also considerably affect ways the body digests, absorbs and uses food [40]. It is estimated that conditions of relevant weight loss and malnutrition occur in 50% of the patients at the time of diagnosis [41,42]. Overweight or obesity are also frequent at the time of diagnosis [43]. Different studies show the association between a healthy diet and a slower cancer progression, better clinical outcomes, and enhanced tolerance of treatments [44], lower mortality rates and less frequent relapses [45], in different types of cancer at different stages. Among these studies, a recent review by Schwedhelm C (2016) has considered 117 studies, for a total of 209.597 cancer survivors to different types of cancer (with a prevalence of breast, esophageal, brain and colorectal cancer) and found a "high-quality diet" (characterized by high consumption of vegetable products and fish) to be inversely correlated to increased mortality rates, while a "typical western diet" (characterized by high consumption of animal fats and sugar) was directly correlated to increased mortality rates and more frequent relapses within the sample [45].

Exercise: A review conducted by Courneya KS in 2003, based on 47 studies investigating the effects of exercise on breast cancer survivors, has shown how a moderate physical activity during and after therapies brought significant improvements in the following indexes: overall cardiovascular performance, muscular strength, body composition, fatigue, anxiety and depressive symptoms, self-esteem as well as other dimensions related to the quality of life [46]. Many studies highlight a strong association between post-therapies physical activity and a reduction of the risk of future relapses and/or a longer life expectancy [47-50]. A research conducted on breast cancer survivors has quantified this association, estimating that a moderate physical activity performed for 1-3 hours/week would decrease the risk of relapses and mortality by 26-40%. Such a proportion would considerably raise by increasing the weekly exercise time to 3-5 hours [50]. Furthermore, moderate levels of exercise during cancer treatment has appeared to be associated to a significant improvement in terms of overall physical functioning and several psychological aspects of the quality of life [46,51,52], suggesting, according to some authors, a possible effect of exercise on increasing the compliance with treatment and, consequently, the effectiveness of therapies [53].

Meditation in Oncology

Even though countless meditative practices are coming from as many specific traditions, a commonly accepted definition of meditation describes it as a "mental presence training that, through quieting the mind and reaching a deeper level of awareness, simultaneously operates on a physical, psychological and energetic level" [54]. Existing literature provides extensive evidence on the effects of regular meditation practice on individual health, mainly through its effect on the nervous, metabolic, endocrine, cardiovascular, and neurologic and immune systems, in addition to effects, it has on a psychological level [55,56]. Indeed, a regular meditation practice is associated to a reduction in the respiratory and cardiovascular rate and cortisol levels [57,58], to the production of alpha and theta brain waves [59], to decreased metabolic activity and muscular tension [60], to regularized blood-related parameters and increased functionality of the immune system [60, 61]. In association with a regular meditation practice,

some studies measured a modification in terms of gene expression, an increase of the mitochondrial activity [62], and a thickening of specific brain regions [63]. On a psychological level, the practice of meditation is associated with lower levels of stress and anxiety, increased clarity of mind and attentive capacity and, according to some studies, mitigation of depressive symptoms [64]. As far back as the studies conducted by Goleman D, et al. (1970) benefits of regular meditation have been measured, observing decreased levels of internal tension, increased focus and sense of calm and improved relationships with oneself and other people [65]. Within the oncologic field, the evidence of the efficacy of meditation on the immune system is due to the pioneering studies conducted by Leshan L (1989) [66] and Simonton [67]. In particular, the studies carried out by Simonton, oncologist, and radiotherapist proved the efficacy of meditation also on patients in advanced stages of the disease. This led to the conclusion that emotions, mental disposition, and the entire belief system can significantly affect individual health and quality of life [67]. Simonton proved the efficacy of combining meditation with proper medical information given to patients and cognitive restructuring, in addition to the standard medical treatment [67]. Based on his studies, he developed a method integrating cognitive therapy, emotional intervention and meditative practices, which he tested on 159 patients diagnosed as "untreatable". Results showed that the intervention had increased survival rate by three to four times in 63 patients, in addition to generating significant improvements in terms of quality of life [67]. As of today, Simonton's method is one of the most popular integrative methods in oncology in the United States, but it has spread also in Europe. The current protocol includes meditation and visualization practices, as well as cognitive therapy. Results from his studies have been later on confirmed by further research, including studies investigating the effects of meditation on chronic diseases that have measured a decrease in pain, anxiety, depressive and stress-related symptoms, as well as improvements in mood, self- efficacy, and self-esteem [68].

The Health, Information and Meditation in Oncology (H.I.M.O.) Method

In Italy, the most widespread example of a structured method applying meditation in Oncology is represented by "Armoniosamente", which from now on will be called the H.I.M.O. method. The method is usually combined with individual sessions of psychological support or psychotherapy, as needed. Since 2003, meditation has been offered to breast cancer patients within the Oncologic Department of the National Health Service of Bologna, Italy. Later on, meditation practice became part of a more structured method, the H.I.M.O method. The method is therefore based on three pillars:

1) Providing proper medical information about the different steps of the therapy.

2) Providing complete information in regards to the most appropriate food to eat during therapies and, more in general, guidelines for a healthy nutrition.

3) Learning a meditation technique for stress management that also facilitates cognitive restructuring of the experience of illness.

These three pillars are structured into two main phases. The first phase includes the first two pillars (Medical and Healthy Lifestyle information) and is led by different medical specialists involved in the care path, for a total of 10 two-hour sessions delivered every week to a maximum of 20 participants. During each session, the assigned medical specialist outlines an overview and the goals of his/her specialty and facilitates a conversation among participants. This phase is therefore not only informative, but its aim is also to reassure patients, promote their active role during treatment and develop a "confident mental attitude" towards therapies. On the other side, for medical specialists, it represents a valuable opportunity to operate within the relational dimension of the cure. The medical specialties involved include a breast specialist, a surgeon, a plastic surgeon, a pathologist, an angiologist, an oncologist, and a radiotherapist. Later, the professionals specialized in health promotion will cover the topics related to Healthy Lifestyles. In particular, a dietician addresses the diet-related content and a sports physician the exercise-related one. In alignment with existing literature, qualitative feedbacks collected from patients after this phasing outline enhanced perceived confidence towards the oncologic therapies, and consequently improved adaptability and sense of control toward the experience of illness, therefore an improvement in terms of mood. At the end of the first phase, the second phase can begin. This phase consists of five group sessions, conducted every week by a psychologist specialized in meditative practices and mindfulness. The main aim of this stage is teaching patients a meditation practice from Tibetan Medicine, which helps to manage stress and can contribute to addressing the disease-reactive psychopathological issues [69]. In particular, teaching this practice has the following intents: help patients to better manage emotional and cognitive negative states, contribute reducing tensions and psychopathological related symptoms such as anxiety, tension, stress, depression; improve the relationship of patients with their body, often transformed by the disease; generate a more adaptive mental attitude towards the disease and therapies; improve the immune system response, facilitate cognitive restructuring towards certain dysfunctional beliefs, as highlighted by last decades literature in this field. During the second phase, usually at the beginning and at the end of the sessions, participants are given a questionnaire (Profile of Mood States, POMS), aimed at detecting changes on an emotional and psychological level. A follow-up session is usually established one month after the last session, to assess patients on a psychological level and refresh their meditation practice. When requested by participants, additional meditation sessions can be repeated every month, led by a psychologist, for no more than three months. By experience, additional follow-ups seem to be effective in strengthening participants' sense of control and autonomy. At the end of the sessions, patients often share a "sense of mastery" towards the illness, the possibility to assign a new meaning to the experience, which consequently activates their willpower and commitment towards healing. The H.I.M.O. the method seems a valid method of information/education and psychological support, which helps patients mobilizing their internal healing processes and face therapies more confidently. It is fully considered a Mind-Body Medicine method and it is advancing as an innovative and multidisciplinary method that can be smoothly integrated into oncologic therapies, intending to humanize oncologic therapies while operating simultaneously on the mental, psychological and spiritual dimensions.

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Conflict of Interests Statement

The authors have no conflicts of interest to declare.

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