

# Psychological Intervention in Individuals with Esophageal Cancer: A Proposal in Six Sessions Called The Flower and The Nausea a Poem by Carlos Drumond Andrade

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**Abstract:** Proposing an intervention plan for patients with esophageal cancer allowed us to understand the main difficulties and suffering these individuals go through. This specific psychological intervention for this target population takes into account their characteristics and difficulties, with the aim of increasing the holistic wellbeing of individuals supported by cognitive-behavioral therapy. Psychology can actually help reduce suffering and increase the wellbeing of individuals diagnosed with esophageal cancer during and after their treatment process.

**Keywords:** Psychological; Cancer; Pollution; Environmental; Diagnosis.

## INTRODUCTION

We present a proposal for a psychological intervention plan that promotes greater holistic wellbeing in individuals diagnosed with esophageal cancer. Holistic means: conception, in the human and social sciences, that seeks to understand the integral importance of phenomena and not the isolated analysis of their constituents.

The promotion of wellbeing in the population is essential to improve the general quality of life. In cases where pathologies such as esophageal cancer exist, it is essential to promote this as a way of reducing the physical and emotional suffering of individuals with this diagnosis. In order to understand the reasons why certain aspects will be focused on and different types of techniques will be carried out throughout the sessions, it will be important to introduce what esophageal cancer is, what its main symptoms and risk factors are, and possible treatments to be carried out. Moreover, psychological suffering could develop in these individuals.

The incidence of esophageal cancer is increasing and is considered the fastest-growing type of cancer in the United States, the Western world, mainly northern Europe, China and Taiwan (Hu et al., 2015; Salgi Esophageal Cancer Research Foundation., 2018; Skeikh et al., 2023). More than

90% of esophageal cancers are divided into two subtypes: squamous cell carcinomas (ESCC), with 80% of cases worldwide but whose incidence is already beginning to decline, or adenocarcinomas (EAC), whose incidence is 20 %, having increased mainly in the last 40 years. While squamous cell carcinomas are distributed evenly throughout the esophagus, about three-quarters of all adenocarcinomas are found in the distal esophagus, the area close to the junction with the stomach (Enzinger & Mayer, 2003; Skeikh et al., 2023). Regarding the geographic location of these subtypes, squamous cell carcinoma appears mainly in East Asia, Central-South Asia and Sub-Saharan Africa. At the same time, adenocarcinoma presents mainly in Northern Europe, North America and Oceania. Furthermore, adenocarcinoma has become more pronounced in some highly developed countries, including Australia, Canada, the United States and northern European countries, places where its incidence is higher than that of squamous cell carcinoma (Skeikh et al., 2023; Soares & Fernandes, 2024).

Studies on this type of cancer state that its risk increases with age, with an average age of diagnosis of 67 years, with very rapid onset and development (Cui et al., 2024; Enzinger & Mayer, 2003). Briefly, the progression stages of esophageal cancer for both subtypes are relatively similar. In stage zero, cancer cells are located in a

superficial layer; later, in stage I (IA and IB), cancer begins to invade deeper layers without metastases or lymphatic spread yet. In stage II (IIA and IIB), the tumor grows to other layers of the esophagus or nearby lymph nodes, but there is still no distant metastasis. In stage III (IIIA and IIIB), the tumor begins to invade adjacent structures or distant lymph nodes, but there are still no distant metastases. Finally, stage IV (IVA and IVB) corresponds to cases in which the cancer has already spread to other organs (American Cancer Society, 2020). Early detection, diagnosis and treatment are essential for good survival prognoses from this form of cancer since, when detected at early stages, the 5-year survival rate can exceed 95%. However, since esophageal cancer does not present obvious symptoms in the early stages, most individuals are only diagnosed in stages II to IV, when only a third of patients are curable. Therefore, the average survival time is approximately one to five years, with a probability of less than 20% (Hu et al., 2015; Li et al., 2022; Skeikh et al., 2023).

Disguised side symptoms may be dysphagia, that is, the fact that the patient vomits while struggling to swallow. Consequently, this situation leads to a decrease in the quantity and frequency with which food is consumed, leading to the occurrence of concomitant symptoms such as stomach pain, constipation and weight loss (Ge et al., 2023). One of the most prevalent side effects is cancer-related fatigue (CRF), characterized by the distressing and persistent feeling of tiredness or physical, emotional or cognitive exhaustion related to cancer or its treatment. It interferes with the normal functioning of individuals, especially after surgery, to partially or completely remove the esophagus, but can be alleviated with rest (Cui et al., 2024).

Remembering that all or most of the symptoms mentioned are only seen as serious enough to seek medical help very late when cancer has already spread, it is possible to understand that treatment consequently becomes more difficult. This situation, however, is not the fault of individuals since they have little understanding of what this type of cancer is due to the low proliferation of information about it, and this leads them to normalize their symptoms or diagnosis - mistakenly considering them to be related to other previous disorders that they have or that are better known (Ge et al., 2023; Salgi Esophageal Cancer Research Foundation., 2018).

## RISK FACTORS

Although the symptoms of esophageal cancer overlap, they present different risk factors. Socioeconomic status: The squamous cell carcinoma subtype is clearly linked to low socioeconomic status, while adenocarcinoma can also appear in the population with high socioeconomic status (Enzinger & Mayer, 2003).

In terms of environmental risk factors, several esophageal disorders can be affected by climate change, such as global warming, which consequently affects basic human needs, causing changes in population dynamics and posing significant threats to digestive Health (Lee et al., 2023). In general, the squamous cell carcinoma subtype is more often associated with developing countries, such as China, which have much higher levels of pollution due to the large use of pollutants in land and water. Therefore, the use of chemical carcinogens, such as heavy metals (lead, mercury and arsenic), N-Nitroso compounds and polycyclic aromatic hydrocarbons, have been considered as some of the main environmental risk factors for increasing the greenhouse effect and, consequently, to increase the incidence of this type of cancer. Furthermore, the maximization of the production of packaged and artificial foods that increase the risk of cancer has led to a progressive decrease in the consumption of certain healthy foods, such as fruits and vegetables (You et al., 2022; Lee et al., 2023).

Exposure to factory smoke and other pollutants is a risk factor for esophageal cancer. At the level of squamous cell carcinoma, there is a direct risk since pollution leads to greater irritation of the esophageal tissue, increasing the risk of cellular changes and the development of cancer. On the other hand, pollution indirectly affects the development of adenocarcinoma, as it leads to a greater risk of irritation and production of acid reflux and, consequently, exacerbates the symptoms of gastroesophageal reflux disease, one of the main risk factors for this subtype. More than 68% of esophageal cancer deaths are attributed to environmental risk factors, so it is important to implement prevention strategies that reduce exposure to pollution (Skeikh et al., 2023; Lee et al., 2023).

Regarding behavioral risks, smoking is the main common risk factor since the ingestion of carcinogenic chemicals from tobacco in contact with the esophageal mucosa leads to an increased risk of developing this form of cancer. Therefore, the risk of esophageal cancer is directly correlated with the number of cigarettes smoked per day and the duration of smoking (Enzinger & Mayer, 2003). Furthermore, the smoking process itself affects not only active smokers but also passive smokers and, in general, climate change. This happens because tobacco has a life cycle with environmental and Health impacts, starting with its production using pesticides, subsequent transportation, the act of smoking, which results in toxic emissions and cancer and, finally, the elimination of tobacco waste. Tobacco increases pollution and the spread of chemicals in the environment (Lee et al., 2023).

Regarding the issue of alcohol consumption, any factor that causes chronic irritation and inflammation of the esophageal mucosa appears to increase the incidence of esophageal squamous cell carcinoma. In this case, substantial alcohol intake, especially in combination with smoking, may be responsible for more than 90% of all cases of esophageal squamous cell carcinoma in the developed world, but not adenocarcinoma. Furthermore, frequent consumption of extremely hot beverages appears to increase the incidence of squamous cell carcinoma (Enzinger & Mayer, 2003).

Due to alcohol and tobacco consumption, individuals with squamous cell carcinoma tend to more frequently have a very low body mass index (BMI). However, in adenocarcinoma, individuals' BMI tends to be very high, indicating obesity, one of the main factors for the development of this subtype of esophageal cancer in the Western world, as it increases intra-abdominal pressure and gastroesophageal reflux. Gastroesophageal reflux disease is also a risk factor for the development of adenocarcinoma since people with recurrent symptoms of reflux have eight times greater risk of developing it, the same happening with individuals diagnosed with Barrett's esophagus (Enzinger & Mayer, 2003).

Finally, considering that in both subtypes, there is a diet poor in "greens," it will be important to replace poorly preserved foods with a high salt content and contaminated with carcinogenic substances or toxins with a Mediterranean diet and the consumption of fresh fruits and vegetables. Through this behavioral change, individuals can reduce their risk of developing esophageal cancer by up to approximately half (Enzinger & Mayer, 2003; Skeikh et al., 2023).

## **THE BABY BOOMERS: THE FAVORITE GENERATION FOR THIS TYPE OF CANCER**

This type of risky behavior is mainly found in individuals born after the Second World War, between 1946 and 1964, also known as baby boomers, who tend to smoke and drink alcohol, increasing their risk of suffering from diabetes. Type II, cardiovascular diseases and various types of cancer (Slagsvold & Hansen, 2022; Worsley et al., 2012).

When they were young, several dramatic social and cultural changes occurred, including the expansion of consumption, leisure and entertainment, which led to changes in social attitudes and lifestyles and the development of opposition to authorities and traditional norms regarding gender roles, sexual relations, abortion, parenthood, clothing and drug use. Thus, they were called the "problem generation," being seen as those to blame for "excessive consumption," more specifically "reckless consumption" and the increase in the climate crisis, due to the freedom to spend, satisfy desires and needs and make choices only focused on themselves (Slagsvold & Hansen, 2022; Soares & Moniz, 2023). In general, baby boomers violate the stereotypical image of the elderly since their ideal of aging focuses on youth and vitality, valuing activity, self-realization, health, good physical fitness and the ability to act and deal with new challenges (Slagsvold & Hansen, 2022). Despite the higher incidence of esophageal cancer in baby boomers, more and more new generations will likely present this diagnosis since smoking continues to be very present in the world population.

## MEDICAL TREATMENTS

After diagnosis, patients with esophageal cancer can benefit from an endoscopic ultrasound, which is useful for determining the correct stage and prognosis and accurately identifying superficial lesions (Enzinger & Mayer, 2003). After the initial evaluation, some treatments for esophageal cancer include surgeries (partial or total esophagectomy and gastrostomy), endoscopic therapies, radiotherapy or chemotherapy used alone or in combination at different stages (Skeikh et al., 2023; Wang et al., 2018).

Esophagectomy is the most immediate treatment with the best long-term results. However, it is a highly invasive procedure with a slow and long recovery and is highly associated with various complications and deterioration in the individual's quality of life. After complete surgical removal of the tumor, the five-year survival rate exceeds 95% for stage 0 disease, between 50-80% for stage I disease, 30-40% for stage IIA disease, 10-30% for stage IIB disease, and 10-15% for stage III disease. In stage IV, the most advanced, they have an average survival rate of less than one year (Enzinger & Mayer, 2003; Ohkura et al., 2020).

Studies by Enzinger and Mayer (2003) also concluded that both subtypes of esophageal cancer respond positively to chemotherapy and the combination of radiotherapy and concomitant chemotherapy with cisplatin and fluorouracil, which provides the possibility of long-term survival in approximately 25% of patients, in the earliest stages. However, due to late diagnosis, this response to treatment lasts up to a few months, and the survival rate is short, rarely exceeding one year, due to the low probability of cure (Enzinger & Mayer, 2003).

## PSYCHOLOGICAL SUFFERING

Cancer is a risk factor for the development of emotional disorders, especially depression and anxiety. As esophageal cancer is often diagnosed at a late stage and its prognosis is among the least favorable, they tend to have high rates of depression and anxiety. Some more severe depressive symptoms can result in reduced quality of life, prolonged hospital stay, increased severity of symptoms, development of negative cognitions,

such as catastrophizing and behavioral habituation that develop an almost inflexible cycle of negativity and inactivity, isolation and, sometimes impaired ability to understand and process prognostic information. Given this situation, individuals with esophageal cancer end up having lower levels of spiritual wellbeing and one of the highest levels of suicide risk compared to other types of cancer (Cui et al., 2024; Hu et al., 2015; Li et al., 2022).

Psychological suffering is also related to the regret of these individuals regarding the delay in seeking medical help. In addition to this, there is great concern regarding the outcome and prognosis of the treatment, which often makes it almost impossible for the individual to focus on other areas of their life. The fact that the majority of individuals who present with esophageal cancer are male is a very important characteristic, in the sense that they feel that they are harming their families and placing a great financial burden on them due to the treatments being so expensive and believe they should be the ones who maintain the role of main family providers (Ge et al., 2023).

This cancer greatly affects appearance, from weight loss to social functioning, with the use of nasogastric tubes or gastrostomy tubes as a means of feeding. Furthermore, stigma and prejudice in relation to this form of cancer are also a determining factor in the individual's psychological suffering, from the point of view that they start to blame themselves for their condition and increasingly self-isolate, mainly avoiding or reducing activities that involve eating, since these moments are major stressors and triggers of depression and anxiety (Ge et al., 2023; Hu et al., 2015).

After treatment, an increase in psychological suffering recurs, primarily due to the impact of body changes, with significant weight loss and hair loss due to chemotherapy, something very distressing for patients. In terms of physical symptoms, such as fatigue, constipation, diarrhea and difficulty swallowing, these are often unexpected and have an impact on social functioning, being extremely demotivating (Graham-Wisener et al., 2018). Studies carried out with individuals surviving one year after esophagectomy allowed us to understand the continuation of psychological suffering, with the majority feeling depressed and expressing fear of

metastasis and death (Ohkura et al., 2020; Soares & Fernandes, 2024). Finally, some studies are still investigating whether the cause of anxiety and depression could be biological due to the large release of cytokines, which present much higher levels than in any other type of cancer (Hu et al., 2015).

After experiencing all this initial psychological suffering, most patients claim to accept their diagnosis, starting to show attitudes of acceptance and resignation. In other words, even though some patients initially feel discomfort and resistance to treatment, over time, they change their mentality and accept their condition. However, this situation is often only achieved with the help and support of family members and healthcare professionals (Ge et al., 2023). Several studies confirm that individuals with esophageal cancer in supportive social environments experience fewer intrusive thoughts and more deliberate rumination, thus promoting greater spiritual wellbeing by feeling cared for, loved and connected to others, realizing the meaning and value of life (Li et al., 2022).

## IMPORTANCE OF PSYCHOLOGICAL SUPPORT

Individuals with esophageal cancer, as well as their caregivers, have demonstrated the need for psychological support from the beginning of treatment, during and after active treatment, as many of them feel that "the stress and trauma are as great as the condition itself." (Graham-Wisener et al., 2018, p. 2; Pereira, Faria & Soares, 2023). In general, individuals who have lower levels of quality of life consequently end up experiencing greater psychological distress at each stage of treatment (Ohkura et al., 2020; Soares, 2024). Therefore, through flexible psychotherapeutic processes, it is possible to encourage the autonomy of the patient and their caregiver in relation to access to psychological support, where it becomes understood that the role of this health professional is to help individuals to be "aware of what their mind and body are doing and then to be aware that they can be helped" (Graham-Wisener et al., 2018, p. 4).

Currently, Cui et al. (2024) found that around 61.6% of individuals with esophageal cancer experience severe fatigue. Given this situation, it is

extremely important to provide psychological treatments, including cognitive-behavioral therapy (CBT). It is a psychotherapeutic approach that emphasizes the importance of controlling our thoughts and emotions to change our behavior. Therefore, its objective is to help deal with and manage emotions, to produce changes in thoughts and behaviors (Daniels, 2015).

Currently, cognitive-behavioral therapy has shown effective results in terms of relief from anguish and pain and effectiveness in improving mood for the treatment of depression in these individuals. Therefore, its incorporation in medical consultations is also suggested (Daniels, 2015). In other words, through the use of various cognitive-behavioral therapy techniques, it is possible to increase the physical, psychological, social and spiritual wellbeing of individuals diagnosed with esophageal cancer. CBT guides the intervention plan proposed below.

## PSYCHOLOGICAL INTERVENTION PLAN

This psychological intervention plan was designed for a group composed of 10 male individuals, aged between 60 and 75 years, diagnosed with esophageal cancer between stages II and III. To be representative of the two subtypes, five elements must be present from each group: esophageal, squamous cell, carcinoma cancer subtype and another five elements of the esophageal adenocarcinoma cancer subtype. Sessions should be spaced one week apart and have an average duration of 60 to 120 minutes. The main topics to be addressed will be smoking, environmental pollution, the need to develop a diet based on fruits and vegetables and the promotion of better self-esteem.

In order to verify the effectiveness of these sessions, two assessment instruments will be applied in the initial session and the final session. The first will be the World Health Organization Wellbeing Index (WHO-5), which presents a Portuguese version translated and applied in 1998 and is composed of five statements on a Likert-type scale of five related points. How often the person has felt well in the last two weeks. Lower scores mean lower wellbeing, and, consequently, higher scores mean higher wellbeing

(Chan et al., 2022; Costa et al., 2023; Faruk et al., 2021). Moving on to the second scale, the Anxiety, Depression and Stress Scale (EADS-21), presents a translated version applied to the Brazilian population, consisting of 21 items equally distributed in three dimensions: depression, anxiety and stress. The depression dimension focuses on the loss of self-esteem and motivation associated with the perception of a low probability of achieving significant life goals. That of anxiety highlights the links between persistent states of anxiety and intense fear responses, and that of stress suggests states of persistent excitement and tension with a low level of resistance to frustration and disappointment (Pais-Ribeiro et al., 2004).

## PRESENTATION OF PSYCHOLOGICAL HELP SESSIONS BASED ON THE CBT MODEL

Session 0, lasting 60 minutes, will consist of initial interviews with each individual with esophageal cancer, a brief explanation of the intervention plan and obtaining informed consent. Afterward, the Index assessment instruments will be applied to the World Health Organization Wellbeing Scale (WHO-5) and the Anxiety, Depression and Stress Scale (EADS-21). The interview will serve to get to know the participants and understand their availability and motivation to participate in the program until the end.

In the first session, a short introduction will be made about the different topics prepared for each session. In addition, the poem the flower and the nausea, written by Carlos Drummond de Andrade, will be read with the aim of allowing participants to reflect on the meaning of this poem and how they associate it with their diagnosis.

The flower and nausea [Carlos Drummond de Andrade]  
Stuck in my class and some clothes,  
I wear white down the gray street.  
Melancholy merchandise lurks at me.  
Should I continue until I get sick?  
Can I, without weapons, revolt?  
Dirty eyes on the tower clock:  
No, the time has not come for complete justice.  
The time is still full of bad poems,  
hallucinations and waiting.

The poor time, the poor poet  
merge into the same impasse.  
In vain, I try to explain myself; the walls are deaf.  
Under the skin of words, there are ciphers and codes.  
The sun comforts the sick and does not renew them.  
The things. How sad things are, considered without emphasis.  
Spew this boredom over the city.  
Forty years and no problems resolved, not even placed.  
No letter was written or received.  
All the men return home.  
They are less free but carry newspapers  
Moreover, they spell out the world, knowing they lose it.  
Crimes of the earth, how can we forgive them?  
I took part in many, others I hid.  
Some I thought were beautiful, but they were published.  
Gentle crimes that help you live.  
Daily error ratio distributed at home.  
The fierce evil bakers.  
The fierce milkmen of evil.  
Set everything on fire, including myself.  
The boy of 1918 was called an anarchist.  
However, my hate is the best of me.  
With him, I save myself.  
Moreover, I give only a little hope.  
A flower was born on the street!  
Pass by far, trams, buses, steel river of traffic.  
A flower, still faded,  
eludes the police and breaks the asphalt.  
Be completely silent, stop business,  
I guarantee that a flower was born.  
Its color is not noticeable.  
Its petals do not open.  
Your name is not on the books.  
It is not lovely. However, it is really a flower.  
I sit on the floor of the capital of São Paulo at five o'clock in the afternoon.  
Moreover, I slowly pass my hand along that insecure shape.  
On the side of the mountains, massive clouds loom.  
Little white dots move in the sea, panicked chickens.  
It is not lovely. However, it is a flower. Pierced the asphalt, boredom, disgust and hatred.

The aim is to reflect on expressions such as "nausea," "Can I, without weapons, rebel?", "the time has not arrived for complete justice," "The sun consoles the sick and does not renew them," and trigger a dialogue with the participants about how the poem helps them convey what they might be feeling.

We will also seek to introduce psychoeducation in relation to this form of cancer and as a way of promoting cancer acceptance strategies. At the final of the session, the diaphragmatic breathing technique will be performed, which focuses on the movement of the diaphragm during inhalation and exhalation as a way of promoting the reduction and control of anxiety. The main objective of this session will also be to promote the integration of individuals and make them understand that they are not alone in this battle (Conceição & Bueno, 2020; Soares, 2016).

Throughout the second and third sessions, the focus will be on reducing the levels of anxiety, stress and depression of individuals in the group. The second session will last an average of 90 minutes. Strategies will be promoted to control anxiety, stress and depression in relation to physical and emotional symptoms, such as fatigue related to esophageal cancer, high economic expenses, overly expensive treatments and intrusive, such as esophagectomy and gastrostomy and, finally, fear of death and leaving family. The presence of a doctor specialized in esophagectomies, and gastrostomies would be essential in this session in order to technically explain which procedures patients will undergo. This explanation will help reduce levels of anxiety, stress and depression, as well as help change individuals' thoughts regarding their fears. We will use a combination of techniques for recording dysfunctional thoughts and connecting thoughts to situations and affection; both focused on recording thoughts and the way they influence the emotional state to promote awareness and the ability to change negative automatic thoughts to more positive ones. Finally, we seek to promote their mental and physical wellbeing through the one-minute meditation technique, which focuses on the breathing process and understanding that the person is not their thoughts and that they can control them (Conceição & Bueno, 2020).

As for the third session, over approximately 90 minutes, and maintaining the same objectives as the second session, we will seek to promote coping strategies, control anxiety and depression and improve individuals' self-esteem. The main physical changes will be addressed, such as the use of gastrostomy tubes, thinness due to not being able to eat properly, and the shame of having to eat in public, which consequently leads to the progressive isolation of these individuals. The objective will be to perform the double standards technique (two weights, two measures) by showing several photographs of bodies, all of them different, and asking them for their opinion in relation to the bodies they observe. Through what they say in relation to the bodies they see, a change in the perception they have in relation to themselves, and their bodies will then be promoted. In addition, the mirror technique will also be performed, where the individual expresses phrases of self-affirmation while looking in the mirror as a way of promoting self-esteem and greater well-being during social activities that involve eating and reducing the shame they feel in relation to their current situation. Finally, the diaphragmatic breathing technique will be performed to help individuals relax after this session (Conceição & Bueno, 2020).

Subsequently, the fourth and fifth sessions will be more focused on reflecting on the environment and its sustainability and the importance of being in contact with nature to promote physical and psychological wellbeing. Thus, in the fourth session, will be in nature and will last approximately two hours (120 minutes), these individuals will be educated regarding the dangers of smoking and the need for a healthier diet. Then, it will be proposed to carry out a video as a way of using new technologies to promote sustainability activities, combating pollution, stop smoking and poor diet and increase holistic Health (Soares, 2023). This session will aim to promote and support smoking cessation, increase the population's knowledge regarding the prevention and control of smoking, improve knowledge about food consumption and nutritional status of the Portuguese population and also increase the daily consumption of fruits and vegetables, as well such as reducing gases and environmental pollution, through the promotion of sustainable development (DGS, 2021; United Nations, 2023). Therefore, this

video will seek to have a preventive and educational aspect where participants promote an understanding of the risks of alcohol and tobacco use in the development of esophageal cancer, as well as promoting the "fertile soil project" policy to reduce the use of chemical pollutants in agricultural production, related to the contamination of fruits and vegetables and an increase in the incidence rate of esophageal cancer (Enzinger & Mayer, 2003; You et al., 2022). To conclude this session, individuals will be invited to perform the Jacobson Progressive Muscle Relaxation Technique, a breathing exercise in which the focus will be on specific parts of the body, such as the feet, abdomen, shoulders and neck, in order to reduce stress, and anxiety symptoms (Conceição & Bueno, 2020).

The fifth session, lasting 2 hours (120 minutes), aims to promote the holistic wellbeing of individuals with esophageal cancer through a short walk through nature as a way to promote physical, mental, social and spiritual Health. The main objective of this session is to focus on observation of the environment and inhalation therapy, that is, the importance of breathing the fresh air of nature away from factory fumes (United Nations, 2023). After this short walk, which, according to the authors Fui et al. (2024), allows the relief of fatigue symptoms related to cancer, the one-minute meditation technique will be performed as a way for them to relax and rest. After this small moment of relaxation, underlying beliefs and assumptions are explored, where each member of the group must understand their problematic automatic thoughts, as well as the need to change them. Subsequently, the coping card technique will be carried out, where each member of the group must write a motivating and realistic phrase that helps them maintain their focus on more positive aspects of life (Conceição & Bueno, 2020).

To conclude this entire intervention process, the sixth session will last approximately 90 minutes, and its objective will be to reflect and obtain feedback from individuals regarding what was accomplished throughout the various sessions. The coping card technique will be used as well as the gratitude box technique, where each individual will personalize a box and inside it will place strips of paper with phrases that express the reasons why they feel gratitude for their life, as a way to end the session in a positive psychology aspect, and to continue this process even after the end of the group intervention.

In the end, they will once again complete the Anxiety, Depression and Stress Scale (EADS-21) and the World Health Organization Wellbeing Index (WHO-5), the aim of which is to obtain feedback from interested parties and understand whether the intervention was successful. Effective in improving levels of wellbeing (anxiety, depression and stress; Conceição & Bueno, 2020).

Although this intervention uses only two assessment instruments, it would be important to mention the Functional Assessment Scale for Cancer Therapy - Esophageal Cancer (FACT-E) and the Holistic Wellbeing Scale, which assess physical, social, emotional and spiritual. Additionally, the FACT-E presents items with additional concerns focused on esophageal cancer. However, these scales do not present application validation studies for the Portuguese population and are therefore not suggested in this plan (Darling et al., 2006; Lee et al., 2015).

## CONCLUSION

It was possible to understand the variety of studies carried out with the aim of validating instruments aimed at wellbeing in different countries, such as Italy in the study by Fontana et al. (2023), China in studies by Lee et al. (2015) and Du et al. (2017) and Iran in the study by Kaveh et al. (2016). It is possible to understand better the importance of translating and validating these instruments in different populations since there was some difficulty in finding scales translated and applied with validity in the Brazilian population. This is the reason why we need studies that allow the validation of the FACT-E and Holistic Wellbeing Scales. Furthermore, it was interesting to conclude that these instruments are not only aimed at studying the wellbeing of individuals, from children to the elderly with pathologies, for example, autism, cancer or restless legs syndrome, but also the wellbeing of their caregivers. They end up being indirectly influenced (Bailey et al., 2024; Jiang & Ngai, 2022; Knutsson et al., 2024; Lucas & Soares, 2014; Paiva et al., 2014). Finally, the literature review allowed us to increase knowledge regarding holistic wellbeing, that is, the combination of physical, emotional, social and spiritual wellbeing (Brown & Applegate, 2012; Vella-Brodrick & Allen, 1995) and its importance in development throughout the various interventions, for different target audiences, (Oliveira & Soares 2011; Lucas & Soares, 2013; Soares & Silva 2024).



## REFERENCES

- [1] American Cancer Society. (2020). Esophageal Cancer Stages. American Cancer Society. <https://www.cancer.org/cancer/types/esophagus-cancer/detection-diagnosis-staging/staging.html>
- [2] Bailey, C., Dalziel, K., Jones, R., Hiscock, H., Devlin, N. J., & Peasgood, T. (2024). The Validity of the EuroQol Health and Wellbeing Short Version (EQ-HWB-S) Instrument in Parents of Children With and Without Health Conditions. *PharmacoEconomics*, 42(1), S163-S179. <https://doi.org/10.1007/s40273-024-01351-5>
- [3] Brown, C., & Applegate, B. (2012). Holistic Wellness Assessment for Young Adults. *Journal of Holistic Nursing*, 30(4), 235-243. <https://doi.org/10.1177/0898010112453327>
- [4] Chan, L., Liu, R. K. W., Lam, T. P., Chen, J. Y., Tipoe, G. L., & Ganotice F. A. (2022). Validation of the World Health Organization WellbeingWellbeing Index (WHO-5) among medical educators in Hong Kong: a confirmatory factor analysis. *Medical Education Online*, 27(1), 1-10. <https://doi.org/10.1080/10872981.2022.2044635>
- [5] Conceição, J., & Bueno, G. (2020). 101 Técnicas da Terapia Cognitivo- Comportamental (1st ed.). Editora UnC. <https://pt.slideshare.net/slideshow/101- tcnicas-da-terapia-cognitivo- comportamental/251309351>
- [6] Costa, A., Henriques, J., Alarcão, V., Henriques, A., Madeira, T., Virgolino, A., Sousa, J., Feteira-Santos, R., Arriaga, M., Rocha, J., & Nogueira, P. (2023). Active aging awareness and wellbeing wellbeing among older adults in Portugal. *Frontiers in Public Health*, 12(11), 1-8. <https://doi.org/10.3389/fpubh.2023.1149731>
- [7] Cui, C., Wang, L., Wang, X. (2024). Effects of physical and psychological symptoms on cancer-related fatigue among esophageal cancer patients. *BMC Cancer*, 24(398), 1-8. <https://doi.org/10.1186/s12885-024-12138-4>
- [8] Daniels, S. (2015). Cognitive Behavior Therapy for Patients With Cancer. *Journal of the Advanced Practitioner in Oncology*, 6(1), 54-56. <https://www.ncbi.nlm.nih.gov/pmc/articles/PM C4577033>
- [9] Darling, G., Eton, D. T., Sulman, J., Casson, A. G., & Cella, D. (2006). Validation of the Functional Assessment of Cancer Therapy Esophageal Cancer Subscale. *American Cancer Society*, 107(4), 854-863. <https://doi.org/10.1002/cncr.22055>
- [10] Direção-Geral da Saúde. (2021). Plano Nacional de Saúde 2021-2030. DGS. <https://pns.dgs.pt>
- [11] Direção Regional de Estatísticas da Madeira. (2022). Estatísticas da Saúde da Região Autónoma da Madeira - 2020. Direção Regional de Estatísticas da Madeira . <https://estatistica.madeira.goc.pt/>
- [12] Du, H., King, R. B., & Chi, P. (2017). Self-esteem and subjective wellbeing revisited: The roles of personal, relational, and collective self-esteem. *PLoS ONE*, 12(8), 1-17. <https://doi.org/10.1371/journal.pone.0183958>
- [13] Enzinger, P. C., & Mayer, R. J. (2003). Esophageal Cancer. *The New England Journal of Medicine*, 349(23), 2241-2252. <https://doi.org/10.1056/NEJMra035010>
- [14] Faruk, Md. O., Alam, F., Chowdhury, K. U. A., & Soron, T. R. (2021). Validation of the Bangla WHO-5 WellbeingWellbeing Index. *Global Mental Health*, 8(26), 1-7. <https://doi.org/10.1017/gmh.2021.26>
- [15] Fontana, L., Folce, P., Santocono, C., Annarumma, M., & Iavicoli, I. (2023). Validation of the NIOSH Worker Wellbeing Questionnaire in the Italian Language. *Journal of Occupational and Environmental Medicine*, 65(6), e402-e412. <https://doi.org/10.1097/JOM.00000000000002835>
- [16] Ge, H., Zhang, L., Ma, X., Li, W., & Li, S. (2023). Symptom Experiences Before Medical Help- Seeking and Psychosocial Responses of Patients with Esophageal Cancer: A Qualitative Study. *European Journal of Cancer Care*, 2023(1), 1-10. <https://doi.org/10.1155/2023/6506917>
- [17] Graham-Wisener, L., Collins, L., Hanna, J., & Dempster, M. (2018). The need for enhanced psychological support in esophageal cancer - an exploratory study of the perception of HCPs, patients, and carers. *Diseases of the Esophagus*, 32(5), 1-7. <https://doi.org/10.1093/dote/doy076>
- [18] Hu, L. Y., Ku, F. C., Wang, Y. P., Shen, C. C., Hu, Y. W., Yeh, C. M., Chen, P. M., Chiang, H. L., Lu, T., Chen, T. J., tag, C. J., & Liu, C. J. (2015). Anxiety and depressive disorders among patients with esophageal cancer in Taiwan: a nationwide population-based study. *Support Cancer Center*, 23(1), 733-740. <https://doi.org/10.1007/s00520-014-2403-0>
- [19] Kaveh, M. H., Ostovarfar, J., Keshavarzi, C., & Ghahremani, L. (2016). Validation of Perceived Wellness Survey (PWS) in a Sample of Iranian Population. *Malaysian Journal of Medical Sciences*, 23(4), 46-53. <https://doi.org/10.21315/mjms2016.23.4.6>
- [20] Knutsson, S., Björk, M., Odzakovic, E., Hellström, A., Sandlund, C., Ulander, M., Lind, J., Fridlund, B., Pakpour, A., & Broström, A. (2024). The ethos brief index - validation of a brief questionnaire to evaluate wellness based on a holistic perspective in patients with restless legs syndrome. *Sleep and Breathing*, 28(4), 1781-1791. <https://doi.org/10.1007/s11325-024-03058-5>
- [21] Jiang, S., & Ngai, S. S. (2022). Assessing multiple domains of child wellbeing: Preliminary development and validation of the multidimensional child wellbeing scale (MCWBS). *Current Psychology*, 41(8), 5458-5469. <https://doi.org/10.1007/s12144-020-01063-x>
- [22] Lee, G. L., Fan, G. K. T., & Chan, S. W. C. (2015). Validation of Chinese and English versions of the Holistic WellbeingWellbeing Scale in patients with cancer. *Support Care Cancer*, 23(12), 3563-3571. <https://doi.org/10.1007/s00520-015-2736-3>
- [23] Lee, Y. Y., Roslan, N. S., Tee, V., Koo, T. H., & Ibrahim, Y. S. (2023). Climate Change and the Esophagus on Changing Disease Patterns as the World Warms. *Current Gastroenterology Reports*, 25(11), 280-288. <https://doi.org/10.1007/s11894-023-00888-3>

- [24] Li, J., Xue, L., & Pan, H. (2022). Social Support and Spiritual Wellbeing of Patients With Esophageal Cancer Aged Over 50 Years: The Mediating Role of Rumination. *Frontiers in Psychiatry*, 13(805380), 1-8. <https://doi.org/10.3389/fpsy.2022.805380>
- [25] Lucas, C. V., & Soares, L. (2013). Programa de promoção do Desenvolvimento Sócio-cognitivo da Criança Parte 1: Intervenção com crianças. *Revista de Psicologia da IMED*, 5(2), 98-102. <https://doi.org/10.18256/2175-5027/psico-imed.v5n2p98-102>
- [26] Lucas, C. V., & Soares, L. (2014). Programa de promoção do Desenvolvimento Sócio-cognitivo da Criança Parte 2: Intervenção com pais. *Revista de Psicologia da IMED*, 6(1), 28-32. <https://doi.org/10.18256/2175-5027/psico-imed.v6n1p28-32>
- [27] Ohkura, Y., Ichikura, K., Shindoh, J., Ueno, M., Udagawa, H., & Matsushima, E. (2020). Relationship between psychological distress and health-related quality of life at each point of the treatment of esophageal cancer. *Esophagus*, 17(3), 312-322. <https://doi.org/10.1007/s10388-019-00710-y>
- [28] Oliveira, F., & Soares, L. (2011). Programa piloto de intervenção para pais de crianças com problemas de obesidade. *Psicologia, Saúde e Doença*, 12(2), 197-211. <https://doi.org/10.15309/11psd120203>
- [29] Pais-Ribeiro, J. L., Honrado, A., Leal, I. (2004). Contribuição para o estudo da adaptação portuguesa das escalas de ansiedade, depressão e stress (EADS) de 21 itens de Lovibond e Lovibond. *Psicologia, saúde e doenças*, 5(1), 229-239. <http://hdl.handle.net/10400.12/1058>
- [30] Paiva, B. S. R., Carvalho, A. L., Kolcaba, K., & Paiva, C. E. (2014). Validation of the Holistic Comfort Questionnaire-caregiver in Portuguese-Brazil in a cohort of informal caregivers of palliative care cancer patients. *Support Care Cancer*, 23(2), 343-351. <https://doi.org/10.1007/s00520-014-2370-5>
- [31] Sheikh, M., Roshandel, G., McCormack, V., & Malekzadeh, R. (2023). Current Status and Future Prospects for Esophageal Cancer. *Cancers*, 15(3), 1-29. <https://doi.org/10.3390/cancers15030765>
- [32] Slagsvold, B., & Hansen, T. (2022). The Baby-boomer generation: Another breed of elderly people? In Falch-Eriksen, A., Takle, M. & Slagsvold, B. (Eds.), *Generational Tensions and Solidarity within advanced welfare states* (pp.153-172). Routledge. <https://doi.org/10.4324/9781003129592-9>
- [33] Carlos Drummond de Andrade - A flor e a náusea. Blogs SAPO. <https://isoares.blogs.sapo.pt/carlos-drummond-de-andrade-a-flor-e-1504696>
- [34] Soares, L. (2023). Mental Health in the digital world. ResearchGate. <https://www.researchgate.net/publication/371165884.com>
- [35] Soares, L., & Fernandes, M. C. (2024). Esophageal Cancer: The State of the Art and a Psycho-Oncology Perspective. *Cancer Therapy & Oncology International Journal*, 26(3), 1-7. <https://doi.org/10.19080/CTOIJ.2024.25.556186>
- [36] Soares, L., & Silva, M. (2024). Liver Cancer: A Psychological CBT Group Intervention Possibility Based on Scientific Review. *World Journal of Cancer and Oncology Research*, 3(1), 1-12. <https://doi.org/10.31586/wjcor.2024.833>
- [37] The Salgi Esophageal Cancer Research Foundation. (2018). Esophageal Cancer Survivor Stories. [salgi.org](http://salgi.org)
- [38] United Nations. (2023). Determined: Report of the Secretary-General on the Work of the Organization 2023. <https://www.un.org/en/delegate/report-secretary-general-work-organization>
- [39] Vella-Brodrick, D. A., & Allen, F. C. (1995). Development and Psychometric Validation of the Mental, Physical, and Spiritual Wellbeing Scale. *Psychological Reports*, 77(2), 659-674. <https://doi.org/10.2466/pr0.1995.77.2.659>
- [40] Wang, T. W., Chen, V. C. H., Yang, Y. H., Chen, C. Y., Lee, C. P., & Wu, S. I. (2018). The effects of anxiety on the receipt of treatments for esophageal cancer. *Psycho-Oncology*, 28(1), 31-38. <https://doi.org/10.1002/pon.4903>
- [41] Worsley, A., Wang, W. C., & Hunter, W. (2012). The relationships between eating habits, smoking and alcohol consumption, and body mass index among baby boomers. *Appetite*, 58(1), 74-80. <https://doi.org/10.1016/j.appet.2011.09.003>
- [42] You, H., Zhang, J., Xia, S., & Wu, S. (2022). Farmland transfer and esophageal cancer incidence rate: mediation of pollution-related agricultural input intensity. *Environmental Science and Pollution Research*, 29(1), 43826-43844. <https://doi.org/10.1007/s11356-022-18921-9>