

# Pharmacological and therapeutic treatment of total pain in patients with metastatic breast cancer: narrative review on the importance of interdisciplinary intervention

*Tratamento farmacológico e terapêutico da dor total em pacientes com câncer de mama metastático: revisão narrativa sobre a importância da intervenção interdisciplinar*

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<https://doi.org/10.5935/2595-0118.20240058-en>

## ABSTRACT

**BACKGROUND AND OBJECTIVES:** Considering the great impact suffered by women with metastatic breast cancer, manifested in physical and/or psychological symptoms, this study seeks to understand the impact of total pain on these patients and to emphasize the importance of interdisciplinary intervention in this context, as well as to list treatment alternatives for better pain management and consequent improvement in quality of life.

**CONTENTS:** A narrative literature review was carried out in Scielo, Pubmed and Google Scholar databases, based on the descriptors “Pain”, “Breast Neoplasms”, “Palliative Care”, “Interdisciplinary Placements”, “Medication Systems” and “Cognitive Behavioral Therapy”, as well as their respective terms in Portuguese, in articles published from 2012 to 2022. 130 publications were found, of which, after applying the criteria, 34 were included in this review. The results obtained point to the impact of total pain on cancer patients, which has repercussions in terms of poorly controlled symptoms of fatigue, dyspnea, poor diet,

poor sleep quality, anxiety, and possible depressive episodes. In this context, interdisciplinary and palliative care emerge as central to the treatment of these patients, since they are based on communication, joint decision-making and comprehensiveness. In addition, different techniques were observed, both pharmacological and psychotherapeutic, such as Cognitive-Behavioral Therapy, which can help relieve pain and other symptoms, improving quality of life.

**CONCLUSION:** However, there are still limitations to the inclusion of interdisciplinary teams in clinical practice, due to communication failures, individual conduct and hierarchization, as well as other aspects.

**Keywords:** Breast neoplasm, Cognitive-behavioral therapy, Interdisciplinary placement, Pain, Medication systems, Palliative care.

## RESUMO

**JUSTIFICATIVA E OBJETIVOS:** Considerando o grande impacto sofrido pelas mulheres com câncer de mama metastático, manifestado em sintomas físicos e/ou psíquicos, o presente estudo buscou compreender o impacto da dor total nessas pacientes e ressaltar a importância da intervenção interdisciplinar nesse contexto, bem como elencar alternativas de tratamento para um melhor manejo da dor e consequente melhora na qualidade de vida.

**CONTEÚDO:** Foi realizada uma revisão narrativa de literatura nas bases de dados Scielo, Pubmed e Google Acadêmico, com base nos descritores “Dor”, “Neoplasias da Mama”, “Cuidados Paliativos”, “Práticas Interdisciplinares”, “Sistemas de Medicação” e “Terapia Cognitivo-Comportamental”, além de seus respectivos termos em inglês, com artigos publicados entre 2012 e 2022. Foram encontradas 130 publicações, das quais, após a aplicação dos critérios, 34 foram incluídas nesta revisão. Os resultados obtidos apontaram para os impactos da dor total em pacientes oncológicos, a qual repercute em sintomas mal controlados de fadiga, dispneia, má alimentação, baixa qualidade de sono, ansiedade e possíveis episódios depressivos. Nesse contexto, a interdisciplinaridade e os cuidados paliativos emergem como centrais para o cuidado dessas pacientes, uma vez que se baseiam em comunicação, decisão conjunta e integralidade. Além disso, foram observadas técnicas, tanto farmacológicas quanto psicone-

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Submitted on March 13, 2024.

Accepted for publication on August 16, 2024.

Conflict of interests: none - Sponsoring sources: none.

## HIGHLIGHTS

- Dimensions of total pain and the impact of total pain on patients' quality of life
- The role of the interdisciplinary team and the importance of palliative care in patients with metastatic breast cancer
- Both pharmacological and psychotherapeutic treatment options, including alternative therapies, aimed at pain relief

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rapêuticas, a exemplo da terapia cognitivo-comportamental, que podem auxiliar na promoção do alívio do quadro álgico e dos demais sintomas, melhorando a qualidade de vida das pacientes. **CONCLUSÃO:** Entretanto, ainda existem limitações para a inclusão de equipes interdisciplinares na prática clínica, devido a falhas de comunicação, condutas individuais e hierarquização, além de outros aspectos.

**Descritores:** Cuidados paliativos, Dor, Neoplasias da mama, Práticas interdisciplinares, Sistemas de medicação, Terapia cognitivo-comportamental.

## INTRODUCTION

In women, breast cancer is the malignant neoplasm with the highest incidence worldwide<sup>1</sup> and is considered to have the highest mortality rate in Brazil<sup>2</sup>. That said, this type of carcinoma represents an important area of research, given that the number of new cases each year continues to rise. Breast tumors are extremely complex and heterogeneous at a molecular level, presenting different subtypes with different mechanisms. However, although heterogeneity is one of the guiding principles in determining treatment, some characteristics shared by the various subtypes also influence this process, such as the presence of metastasis, an independent prognostic factor in the survival of women with this type of tumor<sup>3,4</sup>.

Given that many cancer patients experience intense pain, there is an emerging need for the healthcare team to treat pain, encompassing aspects that involve more than the physical symptoms manifested. That said, total pain is present in all dimensions of human suffering, contemplating the physical, mental (psychological), social and spiritual singularities of each subject, bringing up profound issues that transcend everyday life<sup>5</sup>.

Pain episodes in patients with metastatic breast cancer are characterized as intense and aggressive, and can be the result of a primary tumor and its metastases, or the results of therapeutic interventions, such as post-surgery and post-chemotherapy<sup>6</sup>.

In this sense, integrated pharmacological and psychotherapeutic treatment demands greater care from the whole team, since pain revisits subjectivities related to a worsening prognosis or near death, as well as interfering in aspects of daily life, such as reduced autonomy, well-being and quality of life<sup>7</sup>. Thus, due to the major impacts suffered by these individuals as the disease progresses, it is extremely important to have an interdisciplinary team working together in all aspects of care, especially in decision-making, to promote better well-being for the patient<sup>8,9</sup>. These interventions should also include the monitoring of these patients by palliative care (PC) teams, in order to promote the individual's independence, the activation of emotional and social resources to deal with the process of becoming ill and dying, as well as relieving suffering<sup>10</sup>.

Therefore, considering the context of individualized attention in health care, this narrative review aims to discuss the role of an interdisciplinary team in the treatment of total pain in patients with metastatic breast cancer, in addition to addressing different treatment strategies, both pharmacological and therapeutic, in

order to promote the integralization of care, and practice based on the individuality of each patient.

## CONTENTS

This is a narrative literature review based on scientific articles published in national and international journals and reference books on the subject.

This review covered publications found in the Google Scholar, Scielo and Pubmed databases, which were published between 2012 and 2022, in English and Portuguese, using the following keywords <“Pain”>; <“Dor”>; <“Breast Neoplasms”>; <“Câncer de Mama”>; <“Práticas Interdisciplinares”>; <Interdisciplinary Placement>; <“Palliative Care”>; <“Cuidados Paliativos”>; <“Medication Systems”>; <“Sistemas de Medicação”>; <“Cognitive Behavioral Therapy”>; <“Terapia Cognitivo-Comportamental”>.

The keywords were chosen based on DeCS (*Descritores em Ciências da Saúde* - Health Sciences Descriptors) and MeSH (Medical Subject Heading). To improve the search strategy, the Boolean operators “AND” (intersection operator) and “OR” (union operator) were also used.

The eligibility criteria for inclusion in the research were: free availability in full; relation to the topic and relevance by reading the title and abstract; coherence with the review question in terms of the full text. The exclusion criteria were: outside the established time frame; articles that did not answer the research question or contemplated the repercussions of total pain on the quality of life of cancer patients and/or therapeutic strategies in the intervention only as an outcome.

After identification based on the search strategy and eligibility assessment, the articles and digital books were tabulated based on the type of publication, database in which they were found, language, year of publication, objectives, results and conclusions. The data was then evaluated, and the relevant points were used in the research by distributing them into thematic categories.

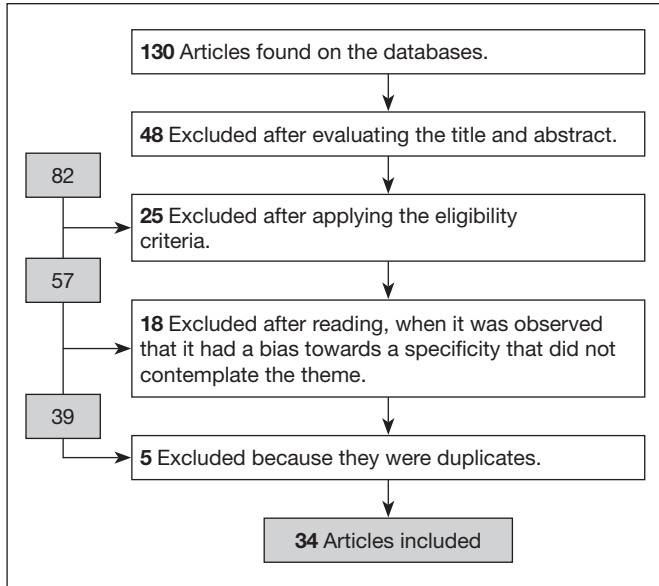
This study was carried out using a narrative literature review, a methodology employed because it involves broader publications that seek to synthesize current knowledge and analyze the applicability of the results of significant studies, appropriate for describing and discussing a given subject in both theoretical and contextual terms<sup>11</sup>.

A total of 130 publications were found in the screening, using descriptors and operators. Subsequently, 82 articles were evaluated based on title and abstract, and availability in full. After this process, the citations were evaluated based on the eligibility criteria, and 34 articles were included in this study. The article selection stage can be seen in figure 1.

### Total pain

According to the International Association for the Study of Pain (IASP), the concept of pain has been evaluated and revised as follows: “an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage”<sup>12</sup>.

Each individual has their own particularities when it comes to their experiences of pain, presenting different responses to a



**Figure 1.** Descriptive criteria used to select and exclude articles

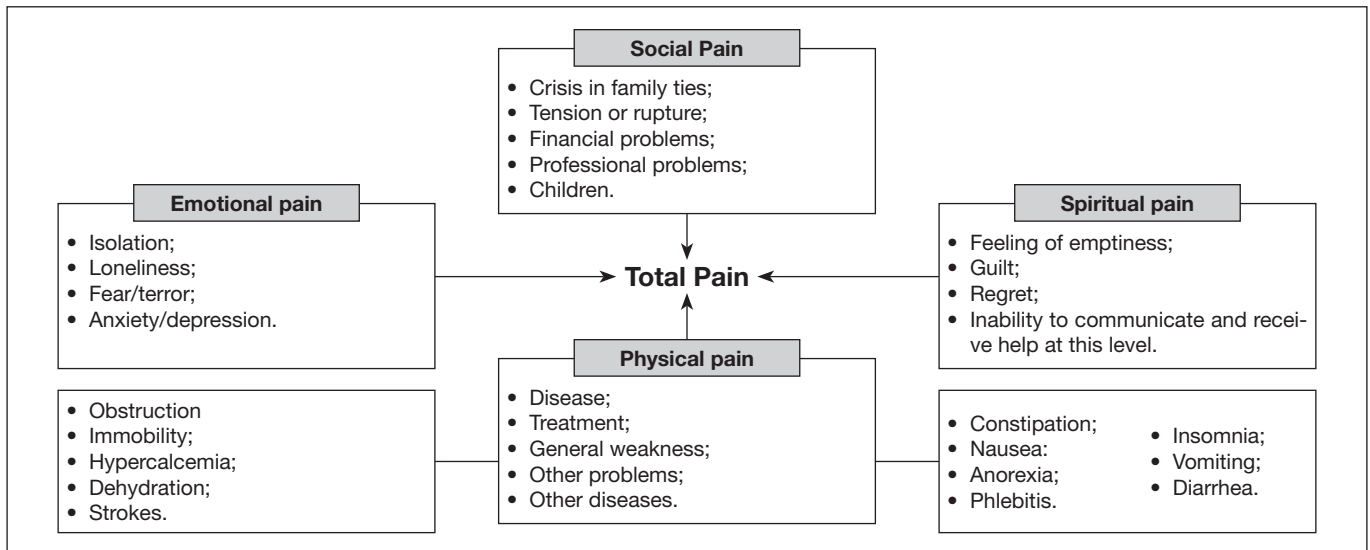
painful stimulus, which include affective and cognitive aspects of the situation. It is therefore necessary to understand the definition of total pain in this process, given that pain goes beyond the physical symptoms manifested<sup>13</sup>. Total pain is present in all the dimensions of human suffering, contemplating the physical, mental (psychological), social and spiritual singularities of each subject, bringing up profound issues that transcend everyday life<sup>5</sup>. Therefore, pain results from a complex interaction of sensations, cognitions, behaviors and emotions<sup>13</sup>. In fact, this concept was created and elaborated carried out in England<sup>13</sup>, which observed the presence of extremely painful conditions in terminally ill patients. Thus, after conclusive studies in this area, it was noted that the components for these conditions included: physical pain; psychological pain (fear of suffering and death, sadness, anger, revolt, insecurity, despair,

depression); social pain (rejection, dependence, uselessness); and spiritual pain (lack of meaning in life and death, fear of the afterlife, guilt before God). Examples of these components can be seen in figure 2.

With this concept in mind, the author of the aforementioned study created a “hospice”, aiming to care for these patients through an interdisciplinary team, taking care to keep the patient free of pain and suffering, offering information and control of decisions to the patient and seeking to listen to and welcome them as human beings, with their difficulties, fears, hopes, beliefs and values<sup>13</sup>. As such, four aspects are essential for the evolution of Total Pain, namely: the cause of the pain; the pain mechanism; the non-physical factors involved in the expression of pain; and, finally, a detailed breakdown of the pain, covering particularities such as location, duration, irradiation, temporal factors, aggravation and relief, impacts on sleep and functional capacity. It’s worth pointing out that proper explanation and guidance from the health team regarding the details described above contributes to confidence and adherence to treatment on the part of the patient and their family<sup>5,14</sup>.

**Impact of total pain and its repercussions on quality of life in metastatic cancer patients**

Pain in patients with metastatic breast cancer is an extremely severe, aggressive and distressing condition, whether it stems from the primary tumor and its metastases, or from the results of therapeutic interventions, such as post-surgery, post-chemotherapy and radiotherapy. Some studies<sup>6</sup> have raised the issue of pain syndrome as the strongest expression of human suffering, with around 75% of cancer patients going through this unwanted experience<sup>6</sup>. The pain experienced by these cancer patients includes some fundamental dimensions that make up the subject’s subjective experiences, which are physical (lesions and progression of the disease and reactions to treatments), social (impaired social relationships, isolation and demotivation), emotional



**Figure 2.** Aspects involving Total Pain  
 Note. Adaptation based on Trotta & Figueiredo, 2012.

(depression, mood swings, apathy) and spiritual (changes in the relationship between individuals and their beliefs, principles and values, questions about faith and the meaning of life, feelings of helplessness and hopelessness), thus characterizing the term “total pain”<sup>7</sup>. In addition to this unpleasant sensation, they have to deal with significant losses related to health, future and standard of living as the cancer progresses in the body, which directly influence pain control<sup>15</sup>.

In this context, there are several factors that affect the patient’s perception of pain, i.e. their “pain threshold”. Among these aspects, some contribute to an increase or decrease in this threshold. With regard to the aspects that promote a decrease, the following stand out: discomfort, fatigue, insomnia, fear, anxiety, anger, sadness, boredom, depression, mental isolation and social abandonment. In addition, other indicators emerge to provide symptom relief and, consequently, increase the pain threshold, such as: analgesics (pharmacological treatments), adequate sleep, empathy for the support network and health team, relaxation, creative activity, anxiety reduction and mood elevation<sup>15</sup>.

With regard to patients with metastatic breast cancer, both physical and psychosocial symptoms are aggravated. As a result, there is a significant worsening in quality of life, with the appearance of poorly controlled and unwanted symptoms related to fatigue, pain, dyspnea, eating (lack of appetite/ cachexia/anorexia), quality of sleep, nausea/vomiting, constipation and anxiety. Thus, there is an increase in the presence of depressive episodes in the lives of these individuals<sup>16</sup>.

Pain as a result of advanced cancer has an estimated prevalence of 69% to 94%, and women with breast cancer are even more likely to have this perception of pain, especially when it is metastatic. With the appearance of metastases, the prevalence of pain increases by 25 to 30% and, in the phases in which the disease worsens significantly, there is an increase of 60% to 90%. Thus, the presence of painful episodes can be considered the most frequent symptom of advanced cancer<sup>7</sup>. However, despite the particularities of advanced stages, breast cancer can be controlled for years<sup>17</sup>. In this sense, the control of pain becomes a significant concern in relation to quality of life, since pain is a pioneer in its reduction in cancer patients, as well as being a condition that affects both the sick person and their family, due to the feeling of stress, discomfort and suffering<sup>6</sup>.

According to a study carried out with 11 volunteer cancer patients in the chemotherapy department of the Professor Polydoro Ernani de São Thiago University Hospital (Santa Catarina/SUS), which assessed quality of life in the presence of pain and how it influences day-to-day activities, it was concluded that pain directly interferes in different contexts, such as physical activity, sleep quality, emotions, concentration and social relationships<sup>18</sup>.

Thus, for cancer patients, pain revisits subjectivities related to a worsening prognosis or near death, as well as interfering in aspects of daily life, with a reduction in autonomy, well-being and quality of life, the threat of increased physical suffering and the challenge to dignity<sup>7</sup>.

### **The role of the interdisciplinary team in the treatment of cancer patients**

In order to promote the patient’s full recovery and ensure that all her anxieties are understood, whether they are physical, psychological, social and/or spiritual, it is necessary to have the support of an interdisciplinary team. Current clinical practice boils down to multidisciplinary work, which, although it involves professionals from different areas of health, is characterized by individualized care, in which each one focuses only on what pertains to their area of expertise<sup>8</sup>. By concept, interdisciplinarity refers to a more integrative practice, in which information and opinions about the case are shared and decisions are made jointly and collaboratively, following a dialogical model, in order to integrate their actions for the greatest benefit of the patient<sup>8</sup>.

Health integration has become an international benchmark in terms of being one of the main methods for improving the results of health practices, bringing elements that facilitate the perception, understanding and effectiveness of teamwork relationships. The interdisciplinary approach has a collaborative influence on care and how to improve access to health, improve the use of resources, improve the efficiency of services, ascertain results and rationalize health care costs<sup>9</sup>. The predominance of the hegemonic model of health care is challenged by this practice, since interdisciplinarity is geared towards patient-centeredness and comprehensive care. In this scenario, the focus is not only on treating the disease that affects the patient, but also on adapting to the life changes imposed by the disease and the adversities caused by it, such as pain<sup>9</sup>.

In order to organize an interdisciplinary team, some issues are essential, such as: interprofessional communication, patient-centred care, family attention and collaboration, clarification of professional roles, establishing a team dynamic, resolving possible interprofessional conflicts and cooperative leadership<sup>19</sup>.

This model of care is of the utmost importance, but even if it seems simple in theory, there are issues that hinder its practice. A descriptive, qualitative and exploratory case study carried out in an oncology palliative care center in the southern region of Brazil questioned a PC team about interdisciplinary action and found that, although information was shared, there were communication failures and conduct was individual, sometimes not even discussed, which goes against the idea of integrativeness<sup>20</sup>.

In addition, research shows that hierarchy is one of the factors that negatively influences the process, since it is related to the inhibition of team members. Therefore, communication is one of the main obstacles to be resolved. For this to happen, there must be constant communication and the information obtained and feelings perceived must be shared. One strategy that can help in this process is to develop structured programs to train the communication skills of the professionals involved in the team, a method that results in improvements in both the performance and communication of interdisciplinary teams<sup>21</sup>.



### **The importance of palliative care in the treatment of patients with metastatic breast cancer**

According to the World Health Organization (WHO), PC is part of the care provided by an interdisciplinary team, focused on improving the quality of life of patients and their families in the face of a life-threatening illness, resorting to the prevention and relief of suffering, as well as seeking early identification, impeccable assessment and treatment of painful conditions, and the other physical, social, psychological and spiritual symptoms involved<sup>22</sup>.

In addition to the objectives already described, the purpose of PC is to provide a humanized welcome aimed at: promoting independence and autonomy, maintaining activities and people who are significant to the patient, activating emotional and social resources to cope with the process of becoming ill and dying, affirming life and considering death as a normal process in the human cycle, strengthening social support networks and, finally, supporting and guiding the family and caregivers<sup>23</sup>.

When it comes to clinical practice involving PC, it encompasses ethical principles based on respect for the patient's autonomy, communication skills and an interdisciplinary approach, encompassing the various areas of health, including: doctors, biomedical doctors, nurses, social workers, psychologists, physiotherapists, occupational therapists, pharmacists, nutritionists, chaplains, dentists and speech therapists<sup>10</sup>.

The assessment of the PC patient can follow different tools and scales that help the team make decisions, such as the "Karnofsky Performance Status", a functionality scale that classifies the patient's ability to perform active work and self-care, the "Eastern Cooperative Oncology Group - Performance Status", which assesses how the disease affects the patient's daily abilities, and the "Edmonton Symptom Assessment System", used to assess the intensity of symptoms such as pain, fatigue, nausea, depression, anxiety, drowsiness, loss of appetite, feeling of well-being, dyspnea and drowsiness<sup>24</sup>.

In this context, palliation is very important in the care of cancer patients, especially those facing advanced cancers, since progression to the metastatic state, as well as cytotoxic treatments, can lead to the appearance of symptoms such as increased fatigue, stress, depression, anxiety and social isolation, as well as other manifestations, which directly impact the patient's quality of life<sup>25</sup>.

Thus, the American Society of Clinical Oncology (ASCO) recommends that patients with advanced cancer receive multidisciplinary PC support combined with concomitant active treatment. This is because, contrary to popular consensus on the subject, active treatment and palliative treatment are not mutually exclusive<sup>25</sup>.

In reality, PC action must be based on interdisciplinarity, since assertive and effective communication between the team, combined with the integration of areas of activity, in order to plan the way in which care will be coordinated, allows for better results and not only comprehensive, but also humanized care<sup>20</sup>. One study investigated the characteristics of PC use and its association with hospital death, length of stay and hospital costs in the USA. Within this study, when comparing 5209

patients with metastatic breast cancer, 991 were treated with PC and 4218 were not. The conclusion was that receiving PC was associated with lower hospital mortality and lower hospital costs. However, the study pointed out that there is still a gap in cancer treatment, thus emphasizing the importance of starting PC early, from the initial diagnosis<sup>25</sup>.

Based on this information, the importance of PC support for cancer patients is clear, as is the need to publicize the important role of this support and how it influences the quality of life of patients affected by life-threatening diseases such as cancer.

### **Treatment strategies for the management of Total Pain in cancer patients, associated with pharmacological and psychotherapeutic interventions, from the perspective of cognitive-behavioral therapy**

Cancer patients end up being strongly impacted as the disease progresses in their bodies, generating psychological suffering, accompanied by unwanted feelings such as sadness, anxiety and depressive symptoms, as well as intense pain that contributes to limitations and disabilities in everyday life. Because of these factors, there is a need for the interdisciplinary team to pay more attention to these individuals, looking after both the physical and psychological aspects in order to promote a better quality of life<sup>26</sup>.

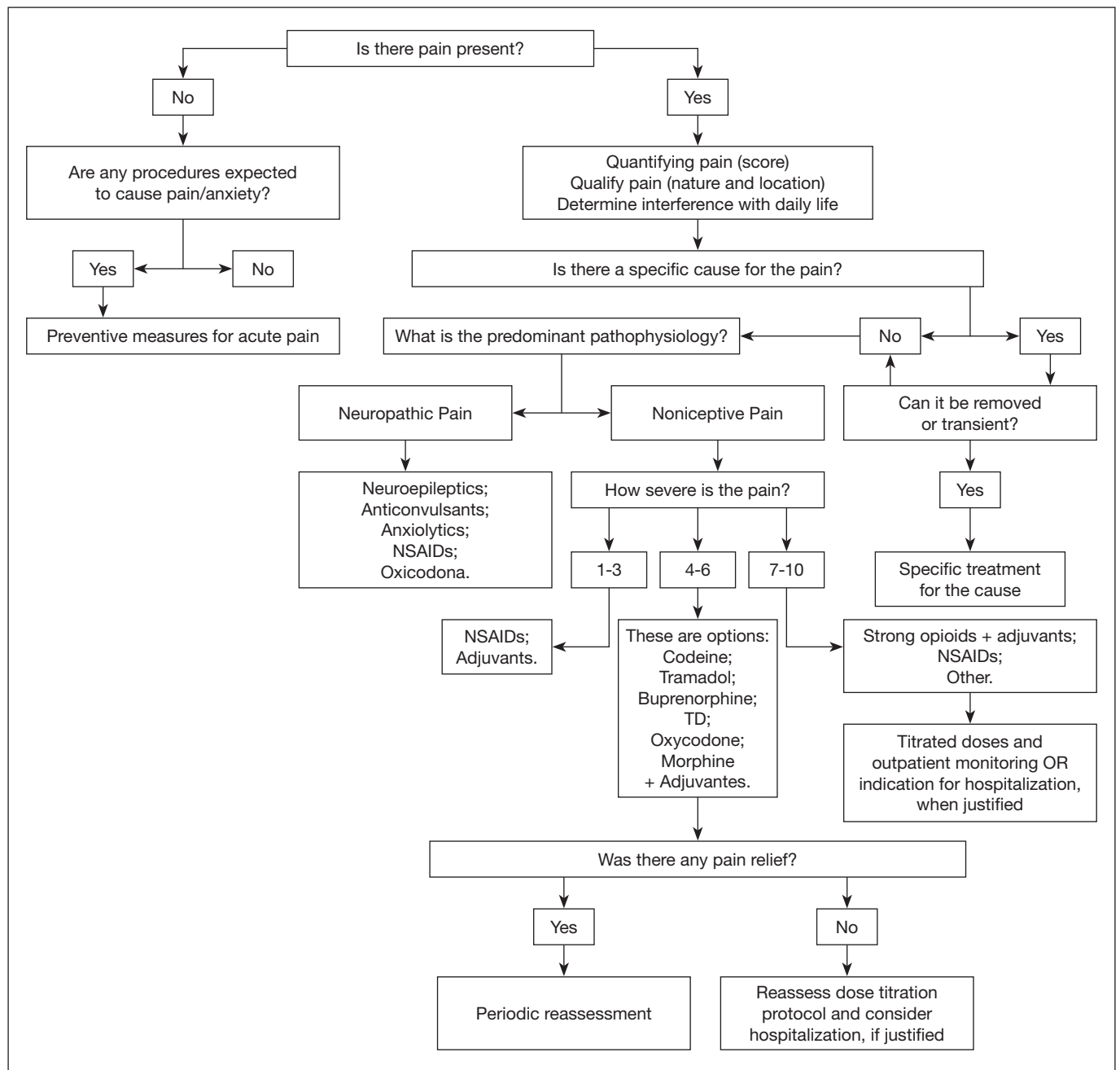
In view of these aspects that aggravate the condition of patients, cancer treatment has increasingly focused on symptom control, especially pain control, since this intervention contributes to improved survival and quality of life. However, it is worth emphasizing that effective pain management is not restricted to the use of drugs alone, but also depends on the action of a health team to control the aspects/symptoms associated with, or even causing, painful episodes. Therefore, therapeutic resources should be defined in a broad context of biopsychosocial and spiritual care, combined with constant education of patients, family members and caregivers<sup>27</sup>.

The determination of a therapeutic regimen must be combined with an understanding of the patient's condition, and it is necessary to assess the intensity, location, underlying pathophysiological mechanism (e.g. nociceptive or neuropathic), worsening and relieving factors, response to current and previous treatments, as well as the impact on daily activities. Thus, with the use of structured assessment tools, such as the Brief Pain Inventory, the DN4 Questionnaire and the Pain Scales, both the suffering triggered by pain and its intensity can be understood more easily, consequently helping to define therapeutic strategies<sup>27</sup>.

Once these aspects have been defined, especially the pathophysiology, treatment with analgesics can begin. In cases of nociceptive pain, non-steroidal anti-inflammatory drugs (NSAIDs) such as diclofenac, ibuprofen and naproxen and adjuvants (such as anticonvulsants, antidepressants and topical anesthetics) are indicated, associated with opioids, whether weak (e.g. codeine and tramadol) or strong (e.g. buprenorphine, methadone, morphine and oxycodone), following the analgesic ladder recommended by the WHO. In cases of neuropathic pain, the most fundamental and commonly used drugs are anticon-

vulsants, antipsychotics, antidepressants and anxiolytics. However, opioids can also be used in this context, thus presenting a broad spectrum of clinical control<sup>27</sup>. In addition, the intensity of the pain is of great importance in determining the drug and the dose administered. In moderate cases (4 to 6, according to the numerical classification scale, which runs from 0 to 10), weaker opioids are usually indicated (such as codeine 30 - 60 mg and tramadol 50 mg); in severe cases (7 - 10) stronger opioids are indicated in association with adjuvants, NSAIDs and other interventions. It is worth pointing out that when administering drugs, special care and

attention should be paid to comorbidities and associated drugs, as possible adverse effects resulting from the different active ingredients (drug-drug interactions) and disease-drug interactions should be monitored<sup>27</sup>. Once the pain is under control, the patient should be periodically reassessed and the medication adjusted according to the pain scenario. On the other hand, if pain control is not satisfactory, a reassessment every 30 minutes and application of dose titration protocols is necessary, considering hospitalization in justifiable cases<sup>27</sup>. The flowchart of interventions can be seen in figure 3.



**Figure 3.** Interventions based on the presence of pain and their specificities

Adapted from Araújo et al. Pharmacological and therapeutic treatment of total pain in patients with metastatic breast cancer: narrative review on the importance of interdisciplinary intervention. BrJP, 2024.

One aspect of pharmacological therapy is that it acts on different pathways in the body, depending on the mechanism of action of the drug used. Therefore, a drug used for pain control will not necessarily act only on the expected receptor, which would lead to pain relief, but may be directed at other receptors and thus lead to the appearance of side effects. In this context, the use of opioids, for example, has negative and invasive effects for patients, such as vomiting and nausea, respiratory depression, xerostomia (dry mouth) and constipation. These impacts on the body can gradually lead to a poorer quality of life, resulting in increasingly disastrous limitations due to the continuous use of these pharmacological treatments<sup>28</sup>.

Because of this, there are several non-pharmacological measures that are considered to be effective in the treatment of pain and are relevant to the complete management of these painful conditions, helping patients to achieve a better quality of life. To this end, it is pertinent to highlight the joint treatment of the interprofessional team in this context, caring for the patient in an integrated manner. Among the interventions that can be used, it is worth mentioning therapeutic practices, such as cognitive-behavioral therapy (meditation techniques, relaxation, directed imagination, guided imagination practice, coping strategies), physical activities, the application of cold/heat, transcutaneous electrical nerve stimulation, acupuncture and, above all, teaching<sup>29</sup>.

After being diagnosed with cancer, patients quickly associate the condition with the idea of death, mutilation and a lot of pain. As a result, this is one of the most feared diseases in the world today. One study<sup>26</sup> pointed out that the feeling when this news is received is equivalent to the loss of something that is of great value to the patient, generating psychic impacts which, in turn, cause physical and emotional wear and tear, as well as devastating sadness in the patient's life. As such, people with this disease can experience intense episodes of anxiety, helplessness, hopelessness and fear, which contribute to changes in mood, possibly leading to depression and other comorbidities<sup>26</sup>.

In addition to the emotional suffering experienced by the patient, their family and support network are also impacted by the experience. One study<sup>30</sup> added that the family system works according to its own rules and standards. That said, the presence of a cancer diagnosis destabilizes this entire system, which will need to be readjusted, providing relief from the suffering that exists in this experience. Psychology, in this context, highlights intervention strategies that aim to help the sick member and their family understand the disease, in order to be able to cope better with the situation. In this way, patients will be able to cope with the situation and, consequently, better adhere to treatment<sup>26</sup>.

In view of the psychological suffering that patients experience during the process, considering the subjectivity of each individual, it is pertinent to use clinical interventions based on cognitive-behavioral therapy (CBT). CBT, developed through the concepts of Aaron Beck (1960), is a brief, structured psychotherapy that emphasizes the present, focused on modifying dysfunctional thoughts and belief systems, with the aim of promoting an improvement in the patient's mood, emotion

and behavior. Through psychotherapeutic work, the patient is guided to understand the problem, explore possible solutions and develop a plan to deal with the difficulties<sup>31</sup>.

According to some studies<sup>30</sup>, the effectiveness of CBT in controlling the stress and depression caused by cancer has been observed. Given this scenario, according to two reference studies<sup>26</sup>, some CBT approaches for cancer patients involve: facilitating adherence to treatment, offering emotional support, preventing health risk behaviors, enabling and stimulating social support for these patients, identifying and reinforcing functional coping strategies, among others. Thus, these interventions would be applied in order to provide patients with greater adaptation throughout the illness process, promoting a reduction in the psychological impact of diagnosis and treatment, and providing a better quality of life<sup>26</sup>.

Some important strategies are included for the treatment of individuals under PC, as well as for relieving pain:

**Psychoeducation:** This technique seeks to provide both family members and patients with important information about the various factors surrounding the illness, educating them about how it works, the manifestations of pain, symptoms and appropriate forms of treatment that can alleviate suffering. Through this form of learning, the individual learns to develop thoughts, ideas and reflections about people, the world, and how to behave in certain situations, through activities that can help to reflect and obtain values, both in individual and collective interventions. Finally, psychoeducation helps the individual and their family to develop mechanisms to cope better with the situation, improve their mood and, consequently, their quality of life<sup>32</sup>.

**Techniques for acquiring strategies for relieving states of tension and anxiety:** These are fundamental techniques for patients and their families to practice at home, especially in times of nervousness, anxiety, anger and anguish. These strategies include relaxation, distraction and directed imagination techniques. That said, relaxation, like the other techniques mentioned, can help reduce and relieve anxiety and muscle tension, promoting a healthier lifestyle<sup>33</sup>. Other interventions with the same purpose include deep breathing, biofeedback, educational groups, modeling, positive reinforcement and behavioral rehearsal<sup>31</sup>.

**Cognitive restructuring:** It allows the patient to identify, recognize and replace the maladaptive automatic thoughts responsible for psychological suffering with healthier behaviors. In order to carry out this process of cognitive restructuring in the subject, a series of resources are used during the treatment, including Socratic questioning, thought records and identification of automatic thoughts, with the aim of altering cognitive distortions<sup>34</sup>.

**Coping strategies:** The concept of coping encompasses cognitive and behavioral efforts to deal with both internal and external demands that overload the patient's personal resources. This technique refers to the way in which the individual reacts to stressful situations, involving personal and situational factors. When the individual produces dysfunctional reactions to the stressful event, this coping strategy works as follows: problem

solving, social support, acceptance of responsibility, self-control, positive reassessment, escape and avoidance, withdrawal and confrontation<sup>30</sup>.

**Assertive training:** Assertive behavior is related to expressing thoughts, feelings and beliefs in a direct, honest and appropriate way, without violating or disrespecting the other person. As such, this strategy helps to produce a positive self-image, as well as setting realistic goals to achieve and valuing oneself more and more. Assertive responses facilitate the solution of interpersonal problems, increase the sense of self-efficacy and self-esteem, improve the quality of relationships and allow the sender to feel more at ease<sup>33</sup>.

**Social skills training:** This intervention model aims to encourage the patient to take part, whenever possible, in social activities (such as going shopping, going to church, friends' birthdays, family gatherings) even with their limitations. In other words, it aims to provide the patient with a new, broader and more socially accepted behavioral repertoire<sup>33</sup>.

Finally, it is considered that this approach provides therapeutic support for the whole family, which suffers the impact of the process of becoming ill with the patient<sup>26</sup>.

In view of all the treatment strategies mentioned above, from pharmacological to psychotherapeutic, it can be noted the importance of interdisciplinary action for the complete management of pain, in order to contemplate all the aspects that involve it, thus providing both relief from pain and a better quality of life for the cancer patient. In addition, it is necessary to involve the family and/or support network in certain therapeutic aspects, since loved ones are also affected by the presence of cancer and need more attention in this context. Thus, health professionals will have the power to help the patient through this painful process, which involves various weaknesses and disabilities.

## DISCUSSION

Initially, it was noted that total pain is not just a physical phenomenon, but is present in all the dimensions that encompass the subject, be they physical, emotional (psychological), social or spiritual. Therefore, pain results from a complex interaction of sensations, cognitions, behaviors and emotions<sup>13</sup>.

The scenario of metastatic cancer is represented by severe and aggressive pain, coupled with significant losses that affect mood, well-being, perceptions of the future, standard of living, and the feeling of increasingly imminent death<sup>15</sup>. As a result, the worsening quality of life is reflected in poorly controlled symptoms of fatigue, pain, dyspnea, eating habits, sleep quality, constipation, anxiety and, therefore, the presence of possible depressive episodes<sup>16</sup>.

In this context, there is a need for an interdisciplinary team and follow-up in PC. Interdisciplinarity is related to integrated care, where the focus is not just on the disease. To achieve this, the team needs to work together to make decisions, sharing the information obtained and discussing it in favor of what is best for the patient<sup>8,9</sup>. At the same time, the practice of PC will enable greater control of the suffering of patients and their families, sin-

ce its principles include: promoting the relief of pain and other distressing symptoms, affirming life and recognizing death as a natural process, integrating psychological and spiritual aspects as part of care and, finally, supporting the patient to be as active an individual as possible and the family so that they have the capacity to care for the patient<sup>23</sup>.

Finally, treatment methods associated with symptom relief and a better quality of life were reported. The strategies identified involve standardized pain methods for each type of case, as well as therapeutic techniques appropriate to the context, including psychotherapeutic interventions based on the CBT approach<sup>26</sup>. Thus, the presence of an interprofessional team is fundamental in this process, in order to care for the patient as a whole, in an integrated way, taking into account all their biopsychosocial aspects<sup>29,27</sup>.

## CONCLUSION

This research identified various impacts of pain in the context of metastatic breast cancer, as well as its interference in patients' quality of life.

In addition, it was possible to infer that for an ideal resolution of the condition, the participation of an interdisciplinary team is necessary, which associates the aforementioned therapeutic methods with PC practices, based on the patient's needs, making a joint decision, in order to integrate care.

Therefore, it is recommended that future projects develop more robust and wide-ranging research, with a view to contributing to knowledge on the subject, as well as possible clinical interventions appropriate to the context. As such, there is a need for scientific productions that take into account the importance of the interdisciplinary team in the context of treating cancer patients - unlike most of the articles, which emphasize the multi-professional team in this environment - and which also address strategies that enable the inclusion of interdisciplinary action in health practice.

## AUTHORS' CONTRIBUTIONS

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Data Collection, Conceptualization, Resource Management, Project Management, Research, Methodology, Writing - Preparation of the original, Writing - Review and Editing, Supervision, Validation, Visualization

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