

INTRODUCTION The Brazilian Cancer Institute (INCA) estimated 600,000 new cases of cancer in Brazil for the biennium 2018–2019, being those of prostate (31.7%), lung (8.7%) and intestine (8.1%) more frequent among men, and breast (29.5%), intestine (9.4%) and cervix (8.1%) the most frequent among women(1).An investigation conducted with 75 cancer patients showed that the most prevalent clinical manifestations resulting from treatment were metabolic (89.3%), such as weight gain or loss; gastrointestinal (74.6%), such as diarrhea, nausea and vomiting; and psychological (61.7%), such as insomnia and anxiety.

METHODS **Ethical aspects** This study followed all ethical precepts of CNS Resolution 466/2012 and Cofen Resolution 311/2007 and was approved by the Research Ethics Committee of the School of Nursing of Universidade de Sao Paulo. There are few Brazilian studies on the prevalence of depression and anxiety in cancer patients, with rates ranging from 25% to 40%, and higher tendencies in patients undergoing chemotherapy(2,7–8).The inclusion criteria were: confirmed malignant neoplasm diagnosis, being under chemotherapy or radiotherapy treatment; older than 18 years; minimum of four years of schooling, not present language dysfunction and having orientation in space and time. Another study that evaluated women with breast cancer identified clinically relevant fatigue (> 4 intensity) in 31.9% of women, and this symptom was associated with pain and depression(14).Cancer patients undergoing treatment at the Cancer Institute of the state of Sao Paulo (Instituto do Cancer do Estado de Sao Paulo – ICESP), were invited to participate and received information about the goals of the study.

Sample, inclusion and exclusion criteria The sample of this study consisted of patients with malignant neoplasm undergoing treatment by chemotherapy or radiotherapy. A Brazilian study that evaluated women with breast cancer undergoing chemotherapy indicated that 93% of them presented nausea and 87% had at least one episode of vomiting during treatment(16).**Study design, location and period** This is a transversal descriptive study, developed in the Out-patient Chemotherapy and Radiation Therapy units of ICESP from September 2015 to December 2016. Regarding these data, a study that evaluated over 3,000 patients with various types of cancer showed that 67% reported some kind of pain or need for analgesic drugs at the beginning of the treatment and of these, 33% were not receiving adequate analgesia(10).A study on women with breast cancer, in the state of Sao Paulo, Brazil, showed that 70.9% of evaluated patients had symptoms of depression and 71% presented fatigue(13).In patients with colorectal cancer, fatigue occurred in 26.8% and predictors were: depression, impaired functioning and sleep disorders(15).Exclusion criteria were: patients who are illiterate or have cognitive disabilities (dementia), and patients with high care demands. Diagnosis, treatment and fear of recurrence cause significant psychological impact in cancer patients, affecting their quality of life (QOL)(2–3).Anxiety and depression symptoms can vary according to the stage of the treatment and evolution of the disease, affecting the quality of life, adherence to treatment and self-care. A study on patients with head and neck cancer undergoing radiation treatment showed dysphoria and depression ranging from 7.3% to 12.1% at the beginning of the treatment, and from 9.7% to 21.9% in the end, suggesting a great impact of the disease and treatment on emotional aspects(9).This symptom negatively affects the quality of life and can worsen anxiety and depression symptoms(23).Thus, we can identify the overlap of symptoms that, although common in cancer patients, are not always adequately treated, impairing the quality of life, functioning and self-care, and may even

affect the adherence to treatment and its results. OBJECTIVES To analyze the prevalence of symptoms and their relationship with the quality of life of cancer patients undergoing chemotherapy and radiation therapy. This study also showed that patients who presented additional symptoms such as fatigue, pain, and body image/appearance issues feared the recurrence of cancer more often(4). Constipation and diarrhea also occur in patients treated with chemotherapy and radiation therapy(17–18). Moreover, pain was reported by 58.6% of patients, with moderate intensity (6.7 $\pm$ 1.83 mean score), according to the numerical scale of pain(19). In another study conducted in 2016, the prevalence of pain in patients with melanoma was 38.2%, of which 75% reported some related disability(20). Insomnia, also common in cancer patients, can be related to stressful events, fatigue and depression, in addition to impairing function(22). A systematic review identified that the fear of recurrence of cancer has been reported as the greatest cause of concern among patients(4). These data show the importance of symptom management for coping with the disease; however, such control is still incipient. Functioning can also be impaired in anxious/depressed patients, influencing other symptoms and reducing the patient's desire to live(2,5–6). Fatigue is reported by 50% to 90% of patients, impairing their quality of life and functioning(12). Nausea and vomiting are also common in patients undergoing chemotherapy. In 2016, the World Health Organization (WHO) estimated that about 90% of cases of pain in patients with cancer could be controlled with simple interventions(11). A large study conducted in the United States in 114 oncology units investigated 810 patients with cancer-related pain. Pain and fatigue are the most prevalent symptoms in cancer patients. However, many studies indicate that pain management for these patients is still difficult. The mean score on the numerical scale of pain was 5.8, and 25% of patients reported that they spent more than 50% of the time feeling constant or intense pain(21). These studies show that the pain has a major impact on the lives of cancer patients, and is often related to impairments to their quality of life. Those agreed to participate signed an informed consent form