

ORIGINAL ARTICLE

PREVALENCE OF INTEGRATIVE AND COMPLEMENTARY PRACTICES IN PATIENTS UNDERGOING ANTINEOPLASTIC CHEMOTHERAPY

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ABSTRACT

Objective: To analyze the prevalence of integrative and complementary practices in patients undergoing antineoplastic chemotherapy.

Method: A quantitative, observational, cross-sectional study was conducted at a Chemotherapy Outpatient Unit of a university hospital in Belo Horizonte, Minas Gerais. The sample consisted of 70 patients with data obtained between October 2017 and May 2018. Data were analyzed using the SPSS program through descriptive and inferential statistics.

Results: The predominant cancers were breast and colon/rectal. The prevalence of integrative practices was 77.1%, with spirituality being the most used. The funding for the practices was predominantly not provided by the Brazilian Nation Health System. No associated factors were found regarding the use of integrative practices.

Conclusion: The patients reported benefits of using integrative complementary practices. It is relevant that nurses know the prevalence of their use and have knowledge to indicate or contraindicate them, when necessary.

DESCRIPTORS: Complementary therapies; Oncology nursing; Prevalence; Chemotherapy; Integrative oncology.


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PREVALÊNCIA DE PRÁTICAS INTEGRATIVAS E COMPLEMENTARES EM PACIENTES SUBMETIDOS À QUIMIOTERAPIA ANTINEOPLÁSICA

RESUMO

Objetivo: analisar a prevalência das práticas integrativas e complementares em pacientes que realizam quimioterapia antineoplásica.

Método: estudo quantitativo, observacional, transversal, realizado em um Ambulatório de Quimioterapia de um hospital universitário de Belo Horizonte, Minas Gerais. A amostra foi composta por 70 pacientes com dados obtidos entre outubro de 2017 e maio de 2018. Os dados foram analisados no programa Statistical Package for Social Science utilizando-se estatística descritiva e inferencial.

Resultados: os cânceres predominantes foram mama e cólon e reto. A prevalência de utilização de práticas integrativas foi de 77,1%, sendo a espiritualidade a mais utilizada. O custeio das práticas foi predominantemente não realizado pelo Sistema Único de Saúde. Não foram encontrados fatores associados para utilização de práticas integrativas.

Conclusão: os pacientes referem benefícios da utilização das práticas integrativas complementares. É relevante que o enfermeiro conheça a prevalência de sua utilização e tenha conhecimento para indicá-las ou contraindicá-las, quando necessário.

DESCRIPTORIOS: Terapias complementares; Enfermagem oncológica; Prevalência; Quimioterapia; Oncologia integrativa.

PREVALENCIA DE PRÁCTICAS DE INTEGRACIÓN Y COMPLEMENTACIÓN EN PACIENTES SOMETIDOS A LA QUIMIOTERAPIA ANTINEOPLÁSICA

RESUMEN

Objetivo: analizar la prevalencia de las prácticas de integración y complementación en pacientes de quimioterapia antineoplásica.

Método: estudio cuantitativo, observacional, trasversal, que se realizó en un Ambulatorio de Quimioterapia de un hospital universitario de Belo Horizonte, Minas Gerais. La muestra se compuso por 70 pacientes con datos que se obtuvieron entre octubre de 2017 y mayo de 2018. Se analizaron los datos por medio del programa Statistical Package for Social Science, utilizándose estadística descriptiva y de inferencia.

Resultados: los cánceres predominantes fueron el de mama y colon y recto. La prevalencia de utilización de prácticas integradoras fue de 77,1%, siendo la espiritualidad la más recurrente. El costeo de las prácticas no fue predominantemente realizado por el Sistema Único de Salud. No se encontraron factores asociados para utilización de prácticas integradoras.

Conclusión: los pacientes refieren beneficios de la utilización de las prácticas integradoras complementarias. Es relevante que el enfermero conozca la prevalencia de sus usos y tenga conocimiento para proponerlas o no, cuando necesario.

DESCRIPTORIOS: Terapias complementarias; Enfermería oncológica; Prevalencia; Quimioterapia; Oncología integradora.

INTRODUCTION

According to the World Health Organization (WHO), malignant neoplasms are today the second leading cause of death worldwide, and it is estimated that in 2018 they were responsible for 9.6 million deaths⁽¹⁾. In Brazil, cancer is the third leading cause of death and the second most common cause of disease in the population. According to the José Alencar Gomes da Silva National Cancer Institute (INCA), the emergence of 600,000 new cases of cancer each year is estimated for the 2018-2019 biennium⁽²⁾.

Often the treatment of choice for malignant neoplasms is antineoplastic chemotherapy. Chemotherapeutic medications are drugs with potentially toxic effects on healthy cells and can be used as a first choice, in combination with radiotherapy or after surgery. In 2018, 832,183 hospitalizations for malignant neoplasms were registered⁽³⁾.

The WHO recommends that member countries develop policies to encourage traditional medicine, also called complementary medicine or integrative medicine⁽⁴⁾. In the United States, in 1998, the Office of Cancer Complementary and Alternative Medicine (OCCAM) was created to oversee the actions of the National Cancer Institute (NCI) regarding integrative and complementary practices (ICPs). The term Integrative Oncology (IO) was proposed in 2000 and in 2003 the Society for Integrative Oncology (SIO) was founded. The SIO comprises a group of professionals, researchers and teachers that perform practices and studies focused on ICPs in oncology. Medline-PubMed started to incorporate the term Integrative Oncology in 2004⁽⁵⁾.

In Brazil, the Nation Health System (Sistema Único de Saúde - SUS) implemented the National Policy for Integrative and Complementary Practices (PNPIC) in 2006, which made it possible to expand the availability of ICPs to SUS users⁽⁶⁾.

Integrative and complementary practices support the conventional therapy and include a variety of knowledge and techniques, which can be accessed according to professional referrals or through the active pursuit by healthy or sick people⁽⁴⁾. In the literature, the following stand out: phytotherapy, acupuncture, homeopathy, art therapy, meditation, music therapy, naturopathic treatment, osteopathic treatment, chiropractic care, Reiki, community therapy, yoga, auriculotherapy and massage therapy⁽⁶⁻⁷⁾.

It should be emphasized that the practice of modern western medicine has allowed space for unconventional practices, seeking intersectoriality and interdisciplinarity⁽⁸⁾.

Recently, data from 2016 show the extent of ICP care in the SUS, with the most commonly offered being traditional Chinese medicine, which includes acupuncture (770,000 consultations), phytotherapy (85,000 consultations) and homeopathy (13,000 consultations). However, 926,000 consultations referred to other ICPs that did not have their own registration code, with Ordinance No. 145/2017 now including them⁽⁸⁻⁹⁾.

The use of ICPs in patients diagnosed with cancer is high and often happens without the knowledge of the multidisciplinary health team that performs the cancer treatment⁽¹⁰⁾.

For this reason, the aim of the study was to analyze the prevalence of ICPs in patients undergoing antineoplastic chemotherapy, characterizing the sample regarding clinical and sociodemographic factors and verifying their association with the prevalence of ICPs. It also aimed to identify whether there are self-reported benefits of ICPs for the patients that used them.

METHOD

This was a quantitative, observational, cross-sectional study. Data collection was performed at an antineoplastic chemotherapy outpatient clinic, part of the complex of a

large university hospital in Belo Horizonte-MG, which exclusively treats SUS patients.

The inclusion criteria of the patients were: to be age 18 years and over, of either sex, diagnosed with malignant neoplasia, with intravenous protocols performed at the antineoplastic chemotherapy outpatient clinic.

Exclusion criteria were: sleepiness induced by the pre-chemotherapy drugs at the time of the interview, physical or emotional inability to communicate, and peripheral venous punctures that made it impossible to sign the consent form.

The data collection instrument used was constructed by the researchers and validated, for appearance and content, by three oncology professionals. The instrument was subdivided into sociodemographic, clinical, treatment-related, lifestyle and integrative and complementary practices data. The instrument contained a questionnaire for the patients, as well as variables collected from the medical records. The instrument was inserted into the Epiinfo® program for data collection and storage through android software on a mobile device. Data were synchronized and transferred to Excel. The sample of 70 patients was obtained by convenience from October 2017 to May 2018.

The variables collected for the sociodemographic identification of the patients were: gender, age, self-declared skin color, marital status, monthly per capita income (in Reais) and source of income. Lifestyle variables included: use of tobacco, use of alcohol. Clinical and treatment-related variables were: malignant neoplasia, stage, metastasis, surgery, radiotherapy. The ICPs covered in the study included: acupuncture, homeopathy, massage therapy, Reiki, meditation, osteopathic treatment, art therapy, music therapy, liam gong, chiropractic, community therapy, yoga, spiritual practice, herbal medicine, auriculotherapy, tai chi chuan, and other self-reported modalities. Variables related to each ICP included: performance, professional referral, type of funding except for Spirituality practice. Regarding the ICPs from the patients' perspective, the variables were: benefits and harm attributed.

Descriptive and inferential analyses were performed. In the descriptive analysis, absolute and relative frequencies were calculated for the qualitative variables. For the quantitative variables, absolute and relative frequencies were calculated, as well as dispersion (standard deviation), central tendency (mean and median) and position (minimum and maximum) measures. In the bivariate analysis, Fisher's exact test or the Chi-square test was used. The association between variables was considered statistically significant when the corresponding hypothesis test resulted in a p-value <0.05. Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) version 19.0, with the help of a professional statistician.

The study complied with Resolution No. 466/2012 of the National Health Council and was approved by the Research Ethics Committee of the Federal University of Minas Gerais, with authorization No. 2.797.014. Participation of the patients in the study was voluntary and all signed the consent form.

RESULTS

Of the 70 patients interviewed, 54 (77.1%) reported performing some type of ICP. The patients predominantly performed only one type of ICP (26 - 37.1%). However, 19 (27.1%) patients of the study performed two ICPs, six patients (8.6%) three ICPs and three (4.3%) patients four ICPs.

Regarding the funding of the ICPs performed, seven (7.4%) ICPs were funded by the SUS and 40 (42.5%) through their own costs, philanthropic, donations and participation in a research project. In addition, the spiritual type practices represented 50% of the ICPs, these being the most frequent in the sample, with the funding for this type not investigated. The ICPs and their frequency of use are presented in Figure 1.

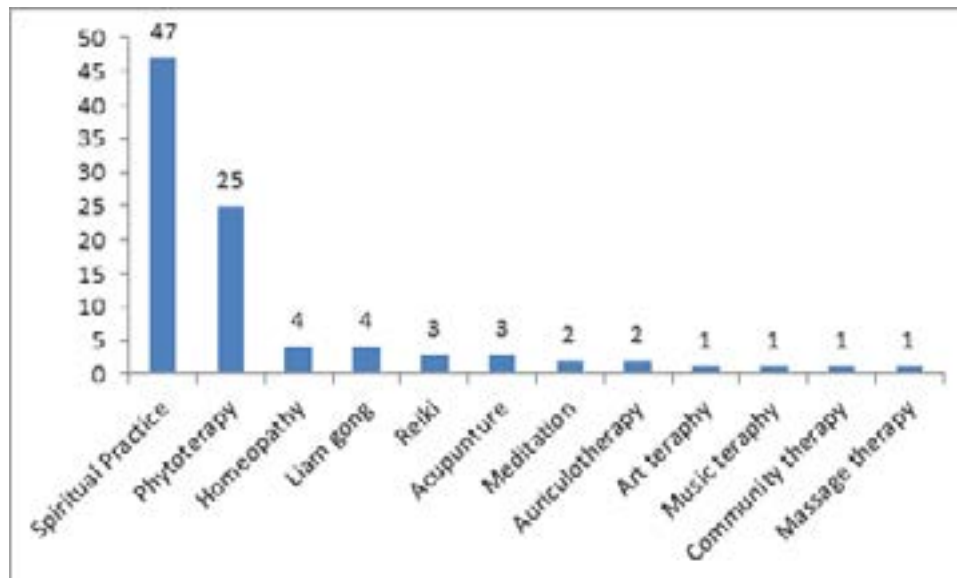


Figure 1 - Distribution of study patients according to the type of integrative and complementary practices. Belo Horizonte, MG, Brazil, 2018

Regarding professional referral for the ICP, the two most prevalent practices, spiritual practice (50.0%) and phytoterapy (26.6%), had no professional referrals. Among the patients, 10 patients reported that they had a professional referral. The referrals were for improvement or control of pain, sleep, allergy, chemotherapy reactions, lymphedema and stress.

The sample consisted of 70 patients, 41 (58.6%) of these being female. The predominant age group was 40 to 59 years of age (48.6%) and the self-declared skin color was predominantly brown. Table 1 shows the frequency and percentage of the sociodemographic data of the study.

Table 1 - Distribution of patients according to sociodemographic variables. Belo Horizonte, MG, Brazil, 2018 (continues)

Variable	n=70 (100%)	Median (Min; Max)
Sex		
Female	41 (58.6)	----
Age		
Mean (SD)	53.8 (4.6)	55 (20; 83)
Age group		
20-39	11 (15.7)	
40-59	34 (48.6)	
> 60	25 (35.7)	
Skin color		
Brown	36 (51.4)	
White	22 (31.4)	
Black	10 (14.3)	

Yellow	2 (2.9)
Marital status	
Married/Stable union	42 (60.0)
Single	19 (27.1)
Widowed	6 (8.6)
Divorced/Separated	3 (4.3)
Source of income	
Retired/Pensioner	27 (38.5)
On sick leave	19 (27.1)
Self employed	10 (14.3)
Not applicable	8 (11.5)
Signed work card	5 (7.2)
Employed	1 (1.4)
Individual Monthly Income	954.00 (0 – 12000.00)
≤ 1 MW	40 (57.2)
> 1 MW - ≤ 2MWs	15 (21.4)
> 2 MWs - ≤ 3MWs	2 (2.8)
>3 MWs	7 (10.0)
Didn't know/didn't report	6 (8.6)

MW = minimum wage; Minimum Wage in force in 2018 = R\$954.00; SD: standard deviation; Min: Minimum; Max: Maximum

Regarding life habits, 41 (58.6%) patients reported that they had used alcohol, 21 (30%) never drank alcohol and eight (11.4%) still used alcohol concomitant with the chemotherapy. Of the patients who were able to stop using alcohol, 19 (27.1%) mentioned that the diagnosis of cancer resulted in the cessation of this habit, followed by willpower 15 (21.4%), spirituality (4.3%) and other reasons (7.1%). Previous tobacco use was reported by 31 of the study patients (44.9%), 34 (48.5%) had never smoked, and five (7.1%) reported that they still smoked cigarettes concomitantly with the chemotherapy. Among the patients who managed to quit, 14 (20.0%) attributed this achievement to their own willpower and 11 (15.7%) to the cancer diagnosis, the others mentioned other reasons.

In relation to the clinical characteristics, the most prevalent cancers were colon/rectal and breast, with the same percentage (30%), of stage IV, with the presence of metastasis accompanied by a high incidence of unknown sites. Surgery was the other type of treatment most commonly used and the concomitant treatment strategy with chemotherapy. The details are presented in Table 2.

Table 2 - Distribution of patients according to clinical and treatment-related variables. Belo Horizonte, MG, Brazil, 2018 (continues)

Variable	n (%)
Primary site	
Colon/rectum	21 (30.0)

Breast	21 (30.0)
Stomach	07 (10.0)
Liver/Bile ducts/Pancreas	06 (8.6)
Sarcomas	04 (5.7)
Hematologic neoplasms	03 (4.3)
Head and neck	02 (2.8)
Other types	06 (8.6)
Stage	
I	02 (2.8)
II	09 (12.9)
III	16 (22.9)
IV	36 (51.4)
Not recorded	07 (10.0)
Metastasis	
Yes	39 (55.7)
No	31 (44.3)
Metastasis Site	
Lung	03 (7.7)
Liver	03 (7.7)
Bone	02 (5.2)
Lymph Nodes	02 (5.2)
Cerebellum	01 (2.5)
Cervical region	01 (2.5)
Bowel	01 (2.5)
Peritoneum	01 (2.5)
Supraclavicular region	01 (2.5)
Multiple metastasis sites	11 (28.2)
Unknown sites	13 (33.4)
Other treatments	
Surgery	56 (80.0)
Radiotherapy	24 (34.3)
Both	10 (14.3)
Treatment strategy	
Concomitant	13 (54.2)
Adjuvant	07 (29.2)
Neoadjuvant	04 (16.6)

It should be emphasized that 39 (55.7%) patients presented metastasis, which indicates that this may be the number of patients with stage IV. The verification of the association between ICPs and sociodemographic and clinical variables are presented in Table 3.

Table 3 - Distribution of patients according to the association of the use of integrative and complementary practices and sociodemographic and clinical variables. Belo Horizonte, MG, Brazil, 2018

Variable	No n (%)	Yes n (%)	P-value*
Sex			0.780
Female	10 (24.4)	31 (75.6)	
Male	6 (20.7)	23 (79.3)	
Marital status			0.335
Single	3 (15.8)	16 (84.2)	
Married/Stable union	10 (23.8)	32 (76.2)	
Separated/Divorced	0	3 (100)	
Widowed	3 (50.0)	3 (50.0)	
Surgery			1.000
Yes	13 (23.2)	43 (76.8)	
No	3 (21.4)	11 (78.6)	
Radiotherapy			1.000
Yes	5 (20.8)	19 (79.2)	
No	11 (24.0)	35 (76.0)	
Stage			0.404
I	0	2 (100)	
II	3 (33.3)	6 (66.7)	
III	5 (31.2)	11 (68.8)	
IV	6 (16.6)	30 (83.4)	
Age group			0.554
20-39	1 (9.0)	10 (91.0)	
40-59	8 (23.5)	26 (76.5)	
60 or over	7 (28.0)	18 (72.0)	
Per capita income			0.231
≤ 1 MW	9 (22.5)	31 (77.5)	
> 1 MW - ≤ 2MWs	5 (33.4)	10 (66.6)	
> 2 MW - ≤ 3MWs	1 (50.0)	1 (50.0)	
>3 MWs	0	7 (100)	

Legend: MW = minimum wage; Minimum Wage in force in 2018 = R\$954.00 *Chi-square test.

A total of 51 (94.4%) of the patients using ICPs attributed benefits to their use ($p < 0.001$). The benefits attributed by the patients were grouped into general well-being, tranquility, improved sleep, pain control, increased faith. One patient (1.85%) reported having felt harm with the use of the ICP, which was a herbal medicine and the harm was intestinal irritation. Also, two patients reported no effect from the ICP use.

DISCUSSION

The profile of the study sample represents patients undergoing treatment with antineoplastic chemotherapy. Breast and prostate cancers were the most common malignancies in the women and men, respectively. However, the treatment for prostate cancer is based on surgery and radiotherapy, with antineoplastic chemotherapy being recommended for palliative care only. Thus, the sample composed of patients with breast and colon/rectal cancer represents the scenario of neoplasms with the greatest possibility for chemotherapy treatment in the Brazilian scenario⁽²⁾.

According to the 2013 National Health Survey, by gender, the indicator showed no statistical differences between the percentages of women (2.0%) compared to men (1.6%) aged 18 years of age or older who were diagnosed with cancer in Brazil⁽¹¹⁾.

Regarding age, the population between 40 and 59 years of age presented a higher incidence of the disease. Age-adjusted rates for both men (217.20/100,000) and women (191.78/100,000) are considered intermediate and consistent with those reported for developing countries⁽²⁾. The Belo Horizonte Population-Based Cancer Registry recorded, for 2012, an increasing trend in cancer cases by age group, except from the age of 80 when there was a small decrease, which was justified by the reduction of the population itself⁽¹²⁾. The incidence of cancer by age group in the present study differs from that presented in the literature, and may be justified by the exclusion criteria that eliminated patients unable to communicate physically or emotionally.

Regarding marital status, it was noticed that the majority of the people reported being married or in a stable union. Studies show that marital and family support are extremely important and play a fundamental role in the support network for people with cancer, possibly helping in times of weakness, mitigating the experience of the disease⁽¹³⁾.

Considering the source of income, it was observed that the majority of subjects reported being retired or receiving a pension. It was also found that the majority of the patients reported individual monthly incomes of less than one minimum wage. Regarding the cancer, the poorest segments of society face barriers to access health services for early detection and treatment of the disease⁽¹⁴⁾.

Alcohol use and smoking are risk factors for various types of cancer. The diagnosis of cancer in the family leads to seeking health maintenance. It should be noted that tobacco and alcohol are well-known risk factors for the initiation of carcinogenesis, and there is no safe consumption for these products⁽¹⁵⁾.

The estimates presented for Brazil reflect a similar profile to that of developed countries, however, there are also high rates of cancer associated with infections, which are characteristic of developing countries. This profile reflects the regional inequalities so particular to Brazil, ranging from differences in life expectancy, socioeconomic conditions, to access to health services for timely diagnosis and appropriate treatment⁽²⁾.

Regarding the clinical characterization, the predominant primary sites were breast and colon/rectum, presenting the same percentage (30%), which corroborates the Brazilian epidemiology⁽²⁾.

The majority of the patients had stage IV, which refers to the presence of metastasis, with a predominance of pulmonary and hepatic metastasis in patients with a known metastasis site. This fact indicates late detection of the disease, or even a delayed start of treatment, which goes back to the higher risks of illness for the poorer population. This population has positive factors for a higher risk of disease development, resulting from social determinants of health, which contribute to greater difficulty in accessing the service and a longer delay in obtaining diagnosis and treatment⁽¹⁴⁾. According to INCA, 60% of the cancer diagnosis in Brazil is still performed at an advanced stage of the disease, stage III and IV⁽²⁾.

The use of ICPs in patients diagnosed with cancer is high and often happens without the knowledge of the multidisciplinary health team that performs the cancer treatment⁽¹⁶⁻¹⁸⁾.

As demonstrated in this study, the most prevalent practices, spiritual practice and phytotherapy, were not professionally indicated.

According to data from the Ministry of Health, more than three thousand municipalities have integrative and complementary practices, with the distribution of 78% of these services being concentrated in Primary Care. More than 8,000 health facilities offer some integrative and complementary practice, which represents about 19% of Primary Health Units (PHUs) in almost 54% of the Brazilian municipalities, distributed across 26 states and the Federal District and in all Brazilian capitals⁽¹⁶⁾.

Among the ICPs used, Spiritual Practice was the most cited. The spirituality/religiosity domain is presented as a necessary item for better coping, relief from the impact caused by cancer and better knowledge to assist the healthcare providers. Furthermore, it is a source of well-being and comfort even in the face of suffering and expectation of the disease⁽¹⁷⁻¹⁸⁾.

A study showed the relationship between mortality and the practice of religiosity in cancer patients, comparing this practice with various health behaviors. The inverse association between attendance of religious services and mortality was consistent over time. Frequent attendance at religious services was associated with a significantly lower risk of breast cancer mortality and colorectal cancer mortality⁽¹⁹⁾.

The second most used ICP was phytotherapy. A study on the use of medicinal plants with antineoplastic therapy by cancer unit patients showed that popular culture collaborates with the indiscriminate use of medicinal plants within the context of self-medication. In the same study, it was observed that patients who use plants during cancer treatment usually do so thinking that they can contribute to the improvement of their health condition⁽²⁰⁾.

It should be noted that part of the population of developing countries depends on popular knowledge to solve their health problems, due to difficulties in access to doctors and medicines, or to cultural aspects of the community. The demand for medicinal plants in pharmacies and health food stores is low, and the garden or that of friends represents the main source of these medicinal resources, probably due to the low cost they represent⁽²¹⁾.

There was no statistically significant difference between the clinical and sociodemographic characteristics of patients in this study with regard to ICP use. This was also found in a recent study in a sample of Australian cancer patients, which further highlighted the statistically significant beneficial effect of patient self-selected ICPs, measured by quality of life instruments and the suffering of the cancer patients⁽²²⁾. This result makes it possible to infer that ICPs are used by cancer patients in a general way, not associated with certain clinical and sociodemographic characteristics.

However, other studies have found an association between clinical and sociodemographic characteristics and ICP use in cancer patients. In a study conducted in Germany with patients with different types of malignant neoplasms, the use of ICPs associated with gender, age, family status, education and monthly income was statistically analyzed. The analysis revealed a significant positive correlation between education (years of schooling) and ICP use prior to treatment and use during the cancer treatment⁽²³⁾. In the United States, another study with cancer patients found a statistically significant association for ICP use and being aged 65 or under, the female gender, higher education, employment, history of cancer surgery, and increasing time since the cancer diagnosis⁽²⁴⁾.

The patients reported that the motivation for ICP use was based on the reduction of the adverse effects of the cancer treatment, preservation of the immune system and tumor therapy, prevention of other health problems, integration of body and mind, help in living with the disease, as well as the opportunity to make an ICP^(23,25-26).

Among the ICPs used in recent international studies with cancer patients, there is unanimous emphasis on dietary supplements, vitamins and massage^(23,25-26) and spirituality⁽²³⁾, the latter corroborating the present study.

Among the limitations of the study, the convenience sample should be highlighted, as well as the cross-sectional study design, which did not allow monitoring of the use of ICP and its benefits for the patients undergoing cancer treatment.

CONCLUSION

This study found a high prevalence of ICP use by cancer patients undergoing chemotherapy, with emphasis on the practice of spirituality. There was no association between ICP use and clinical and sociodemographic characteristics. The patients reported benefits from the use of ICPs far superior to the harm. The professional referral of ICPs was low in this study.

Thus, studies showing the ICPs performed by cancer patients in Brazil are important to provide an overview of the use of these services that are predominantly offered in Primary Care in the SUS. With regard to the nursing practice, the knowledge of evidence related to ICPs and the prevalence of their use by cancer patients undergoing cancer treatment can provide support for the clinical practice and nursing care to this clientele.

Integrative oncology seeks to associate conventional treatment with ICPs, and it is important to emphasize that they should be discarded when they cause harmful interference with the treatment. It is also relevant that nurses know the most frequently used practices and have knowledge to indicate or contraindicate them, when necessary.

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