

# Perception of Alternative and Complementary Medicine for Cancer Care among Patients and Health Professionals: An Exploratory Study

## Perspectivas de pacientes y profesionales en torno al uso de medicinas alternativas y complementarias para el cuidado del cáncer: un estudio exploratorio

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### ABSTRACT

**Introduction:** The use of complementary and alternative medicines (CAMs) by oncology patients is a widespread practice generally outside of the main course of treatment. The lack of understanding between patient and professional perceptions can lead to deficient communication with negative effect on cancer care. **Objective:** To explore the perception of patients and caregivers, as well as coincidences and divergences regarding the use of CAM in cancer care. **Methods:** An exploratory study with interpretative phenomenological analysis was carried out. We used focus group with pre-established domains. Independent manual coding was performed and the codes subsequently grouped for interpretation. The grouping was triangulated with the research team to generate definitive categories. **Results:** Two categories emerged: conceptualization and life-experience with CAM. Each category includes similar (i.e. denominations, use of CAM) and differential subcategories (i.e. value judgment, scientific rationale) between the two groups. The conceptualization recognizes how participants characterize the CAMs,

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and the life-experience identifies the way they relate to the CAMs. **Conclusions:** Patients and professionals share concerns regarding the use of CAM, but there are differences in language and expectations concerning its use. For patients, medical advice is relevant but not definitive and scientific evidence is only relevant for professionals.

**Keywords**

complementary therapies; cancer care; patient perception; provider perception; Colombia.

**RESUMEN**

**Introducción:** el uso de medicinas alternativas y complementarias (MAC) por pacientes oncológicos es una práctica extendida, generalmente por fuera del tratamiento principal. La falta de entendimiento entre percepciones de pacientes y profesionales puede derivar en problemas de comunicación con repercusión negativa en el cuidado. **Objetivo:** indagar por coincidencias y divergencias en la percepción de pacientes y profesionales frente al uso de MAC en el paciente oncológico. **Métodos:** estudio exploratorio con análisis interpretativo fenomenológico mediante grupos focales, usando dominios preestablecidos. Se realizó codificación manual independiente, y posteriormente se agruparon los códigos para su interpretación. El agrupamiento fue triangulado con el equipo de investigación para generar categorías definitivas. **Resultados:** surgieron dos categorías: conceptualización y vivencia frente a MAC. Cada categoría incluye subcategorías similares (p. ej., denominaciones, uso de MAC) y diferenciales (p. ej. valoración, fundamentación), entre los dos grupos. La conceptualización reconoce cómo los participantes caracterizan la MAC y la vivencia identifica la forma y vías como se relacionan con la MAC. **Conclusiones:** pacientes y profesionales comparten inquietudes frente al uso de MAC, pero existen diferencias en lenguaje y expectativas frente a su uso. Para los pacientes el consejo médico es relevante pero no definitivo, y la evidencia científica solo es relevante para los profesionales.

**Palabras clave**

medicina alternativa y complementaria; cuidado oncológico; percepción del paciente; percepción del proveedor de cuidado; Colombia.

**Introduction**

The use of alternative and complementary medicines (CAMs) by cancer patients is widely practiced in different cultural contexts. However, prevalences differ greatly among countries (ranging from 5% to 74.8%), and even within countries there are marked differences among reported studies (1). There is little information on the use of CAMs in cancer patients in

Colombia, and the available data from reference centers in Bogota indicate figures between 70% and 80% (2,3).

The high frequency with which these therapies are used has led more and more cancer centers to incorporate them into the comprehensive management of patients in coordination with allopathic medicine. But despite the high acceptance and use of CAMs by patients, integrative medicine has not expanded much in our environment, and practices in this context continue to be given outside the main course of treatment. This follows from the limited availability of CAM services in Colombia and the fact that most of these services are carried out in independent private practice (4).

A contributing factor to this situation may be the lack of understanding of the perceptions of patients, professionals and caregivers regarding alternative medicines, which in turn can lead to communication problems between these actors. In Colombia there is very little information on this subject. A study in the department of Cundinamarca showed that, although nearly 50% of public sector doctors have a positive attitude towards the use of alternative medicines, only 18% of them recommend them to their patients (5). However, this information does not discriminate between general practitioners and specialists, and it is not clear what the perception of professionals may be in a highly specialized environment with great technological development and influence by the pharmaceutical industry such as cancer care.

Given the growing burden of malignant neoplasms, which represent the second leading cause of death in the country and generate more than 100,000 new cases per year (6), added to the high frequency of CAM use in a life-threatening conditions, it is necessary to better understand the perceptions of patients and professionals regarding these practices. This in order to build knowledge and improve communication and cancer care in the country. This article presents the results of an exploratory study that investigated the perception of patients and caregivers and analyzed coincidences and

divergences of the two perspectives on the use of alternative medicines in cancer patients.

## Methods

A phenomenological interpretative analysis (7) was carried out in order to identify the meaning and significance of personal experiences in relation to the use of CAMs for cancer care. The project was approved by the Ethics and Research Committee of the Hospital Universitario San Ignacio/School of Medicine of the Pontificia Universidad Javeriana.

We used the technique of focus groups, which were made up of patients, caregivers and professionals. A focus group was held with patients and caregivers, and a focus group with cancer care professionals. Informed consent was obtained from all participants. For the patient focus group, representation of both sexes, different age groups, different types of cancer, and different times in the course of the disease and treatment was sought. For the professional focus group, specialists in clinical oncology, hemato-oncology, radiation therapy, surgery, palliative care, nursing and alternative medicine were invited both in their practice (mind-body therapy) and in the research area.

The Integrative Medicine Service and the nurses managing the functional cancer units of the Javeriana Center of Oncology made the call for patients and caregivers. The call was initially oriented to individuals with high information potential. In view of the low response to the personalized call, finally an open call was made. The call for professionals was personalized so that there would be representation of the areas described.

To develop the focus groups, a guide was created that included the description of the project and the context of the focus group, the presentation of the facilitators, the expected duration of the focus group (one hour and fifteen minutes) and the domains or categories to be investigated with the guiding questions. The domains in the patient focus group were:

1. Understanding of what is complementary medicine and the denominations used to refer to it.
2. Types of practice.
3. Usual sources of complementary medicines.
4. Times when they are used in relation to the evolution of the disease.
5. Reasons for use.

The domains in the professional focus group were:

1. Understanding of what is complementary medicine.
2. Known practices.
3. Recommended practices and contraindicated or discouraged practices.

The focus groups were developed with a moderator and two observers who were part of the research team. The sessions were recorded in audio and video, and the content of each session was transcribed by administrative personnel for analysis. A research assistant verified the content for accuracy. Finally, it was reviewed by the principal investigator, in order to guarantee reading comprehension and the procedures carried out before coding and interpreting the data.

Each of the domains was coded by three members of the research group independently and blindly, both in the patient focus group and in the professional focus group. The codes were then grouped for interpretation. The identification of categories was initially carried out by two members of the research team, and these were reviewed by a third member of the team, who re-categorized them by grouping the initial categories. Such proposed grouping was triangulated with the entire research team to generate definitive categories.

## Results

The focus group of patients and caregivers had 17 participants, 13 women and 4 men. In total, there

were 4 caregivers and 11 patients, 2 participants did not indicate whether they were patients or caregivers. The types of cancer represented include breast cancer, prostate cancer, stomach cancer, and hematolymphoid neoplasms, with an age range of 49 to 77 years. The professional focus group had 7 participants, 2 women and 5 men. Areas of practice represented included hemato-oncology, surgery, clinical oncology, mind-body therapy (yoga teacher), and alternative medicine research (biologist).

The results represent the emerging categories on the topics of interest. Both from the perspective of patients/caregivers and professionals, two categories associated with their perception, knowledge, experiences and practices in relation to CAMs emerged, namely: conceptualization and experience. Each of these includes subcategories that are illustrated by excerpts from what the participants expressed (tables 1 and 2).

**Table 1**

*Examples supporting the emerging categories as described by the patient/caregiver group*

1. Conceptualization	
1.1. Value judgment/expectations	Participant 1: "Doctor, when I say alternative I mean that it is a hope, it is something new, it can be innovative, another path to take".
1.2. Bias /disinformation	Participant 3: "Well, complementary medicine to the extent that when you, let's say, pay for an additional service, that's the way I understand it..." Participant 6: "I don't understand, I'm lost because I remain... honestly, I don't understand."
1.3. Denomination	
1.3.1. General/non-specific	Participant 9: "... he doesn't want to receive more chemo, we have continued with natural medicine". Participant 4: "...having a different faith about the other medicine without putting aside the medicine of the oncologists, we must continue with that medicine... The other doctor, the alternative doctor, as we call him".
1.3.2. Specific	Participant 14: "...I remember that I was told: Take anamu; and I had anamu for breakfast, lunch and dinner". Participant 12: "I think that German medicine is much better and well recognized worldwide".

2. Patients and caregivers' experiences with alternative medicines	
2.1. Places where they are obtained	
2.1.1. Recognized	Participant 1: "... he prescribes medicines from the Santa Rita, but also from the Hahnemann Pharmacy".
2.1.2. Not recognized	Participant 10: "... what you get in a store where you can get herbs, in a small market square..."
2.2. Usage	
2.2.1. Elements used	Participant 9: "...I give him other natural things: Andean blueberry and other medicines". Participant 10: "... it's the thing of the herbs that one knows, let's say chamomile, spearmint, ginger, soursop..."
2.2.2. Mode of use	Participant 15: "... I take sodium bicarbonate on an empty stomach, that's the first thing I do when I wake up since I knew I had breast cancer..." Participant 2: "... let's say, for a stomach ache I drink spearmint tea... that is alternative medicine... if I have, to say, flu, I use ginger..."
2.2.3. Reasons for use	Participant 1: "there are testimonies, I read a lot and I have seen testimonies of people who say that they have taken chuchuguaza and have improved ... Then, I have taken everything I have been given, and if they tell me you have to take, I do not know what..." Participant 8: "the plants, all of that, fruits that have a good effect, would be the means to take care of myself and to continue taking care of myself so that the cancer does not recur".
2.2.4. Time of use	Participant 6: "... I used to come back from the chemotherapies feeling really sick, but with the help of my drops, I moved on..." Participant 1: "I don't currently have cancer... I think that after that you have to take care of yourself... that would be alternative medicine". Participant 11: "I believe that the diagnosis is a warning... One must take the necessary measures... Well, I think that from that moment on".
2.3. Presentation	Participant 3: "I was in palliative care and for me to take those drops, because they are drops that were given to me... I felt that with that I got ahead". Participant 10: "... I have never used alternative medicine such as drops or bought things like those, no, rather I have used herbs..."
2.4. Person who recommended (Recommender)	Participant 12: "The homeopath, who, let's say, is the family doctor in my house..." Patient 14: "Relatives who knew anamu..." Participant 10: "with a specialized doctor, where one goes and he tells you that you can take this and this and they don't affect you, nor do they take away any strength from the medicine, from the medicines that the doctors prescribe... It's not that if you take these drops they take away the strength of the medications that doctors prescribe..."

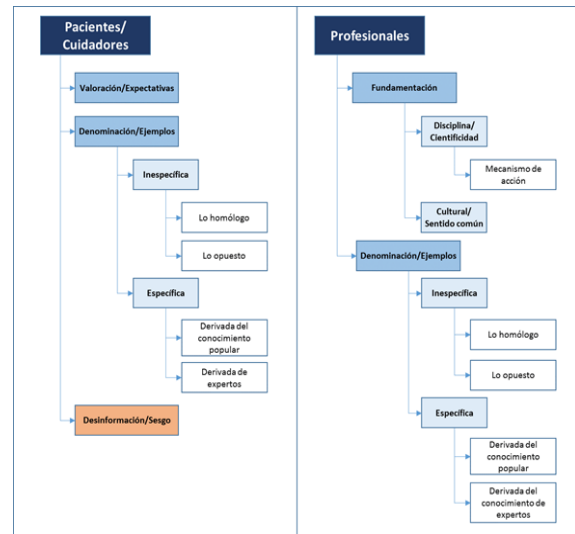
**Table 2.**  
Examples that support the emerging categories according to the description of the group of professionals

1. Conceptualization	
<b>1.1. Rationale</b>	
1.1.1. Discipline/scientificity	Professional 6: "... natural products, which have clear and identified molecular biochemical effects... When I hear about alternative medicine I think it is a serious discipline, which has a series of things that work". Professional 1: "neural therapy... The function of blocking the currents that can produce disorders at the organ level, at the system level, and many times the fact of making a puncture with an anesthetic such as lidocaine can help unblock those channels".
1.1.2. Cultural/common sense	Professional 5: "are those other possibilities that lead us to a therapeutic process that does not necessarily imply the use of allopathic medicines". Professional 7: "the other alternative is an approach of each culture when treating the disease".
<b>1.2. Denomination</b>	
1.2.1. General	Professional 5: "...are those other possibilities that lead us to a therapeutic process, which do not necessarily imply the use of allopathic medicines..."
1.2.2. Specific	Professional 2: "black vulture blood, blue scorpion extract, the aforementioned transfer factor".
<b>2. Experience of professionals regarding alternative medicines</b>	
2.1. Personal/family experiences	Professional 6: "My mom had a bladder carcinoma... She started taking Cuban scorpion extract and another Cuban medicine for pain".
<b>2.2. Experiences from the work environment</b>	
<b>2.2.1. Usage</b>	
2.2.1.1. Elements used by patients	Professional 2: "Black vulture blood, blue scorpion extract, the already mentioned transfer factor... Turmeric is being used more and more".
2.2.1.2. Reasons for use	Professional 7: "we have been in treatment in multiple places.... I said, Ok, we had tried everything, let's give him that".
	Professional 3: "that great concern and need that patients have and sometimes we cannot solve with hematology or hemato-oncology treatment, then they go and look for other alternatives... That also helps them get stronger and cope with cancer".
	Professional 6: "they are taking turmeric because of what was published in the journal of the Universidad Javeriana. People told me it is a study here of the Javeriana". Professional 1: "people who take medicinal plants that are not necessarily prescribed by doctors simply take them for what they have been told through oral tradition".
<b>2.2.2. Recommendation</b>	
2.2.2.1. Recommended	Professional 2: "... patients who develop dyspepsia and do not want an aromatase inhibitor, it has not worked, I use calendula gel which works very well for them, and in patients who take an aromatase inhibitor, which one of the main manifestations is joint pain, I use magnesium chloride which works very well for them, and it also controls pain very well..."
2.2.2.2. Not recommended	Professional 2: "... while the patient is on active therapy I try not to recommend them if there is no evidence supporting them..."
	Professional 5: "... there are very extreme practices and they go directly, let's say, to the liver, and I don't know, a patient that is in a process, in treatment... Not all the yoga practices work well for a patient with cancer".
	Professional 6: "... I tell them not to buy transfer factor because they waste money and I also advise them against vitamin supplements, because as you said, problems, and when there are exotic or unhygienic things like drinking black vulture blood".
2.2.3. Communication	Professional 3: "... the most frequent... is transference factor, 60 or 70 percent, I question them, I question them, but they go in the course of the illness, they tell the doctor..." Professional 4: "yes, the same, they ask me a lot of questions too".
2.2.4. Level of knowledge	Professional 4: "...that is, I want to know more about the subject so as not to be so skeptical about certain things... You have to explore this part because it is a reality". Professional 6: "A few years ago when I heard about alternative medicine I had a somewhat pejorative view... but it has been changing as a result of being informed... There are drugs that due to their active ingredients, have effects on the patient, which can have effects not only on the symptoms but also on the biological activity of the tumor".

Conceptualization about alternative and complementary medicines

Conceptualization refers to aspects that the participants include in their discourse to characterize what the CAMs are for them. Three subcategories were found in patients/caregivers and two subcategories for professionals (Figure 1).

**Figure 1.**  
Emerging categories on the conceptualization of alternative and complementary medicines by patients/caregivers and professionals



Value judgment/expectation reflects what is expressed by some patients and caregivers, for whom CAMs are defined in terms of positive effects on the health condition. It also implies a concept based on what they could expect

from CAMs as an alternative treatment for their disease, admitting a hopeful path that includes characteristics of innovation and therapeutic complementarity.

The *denominations* (expressed as examples) allow identifying how the CAMs are conceptualized (Figure 1) and include two perspectives: general and specific (Table 3). General or non-specific denominations include both terms related to CAMs such as “naturist” or “natural”, which have been nominated as the homolog, as well as names such as “alternative”, assigned according to types of medicine that would be in opposition to what is considered CAM as “alternative” (Table 1: 1.3.1; Table 2: 1.2.1). In the case of examples with specific denomination, both patients and professionals identify practices or elements derived from popular knowledge or expert knowledge (Table 1: 1.3.2; Table 2: 1.2.2).

**Table 3**  
*Denomination examples that define alternative or complementary medicines*

<b>Patients and caregivers</b>	<p><b>General:</b> drops, globules, serums, pellets, other types of medicine, grandma's remedies, herbal tea, herbs, spiritual medicine, <i>natural medicine, naturopathic medicine, alternative medicine, homeopathy.</i></p> <p><b>Specific:</b> “chuchuguaza”, bicarbonate, chamomile, spearmint, beet, carrot, aloe, Andean blueberry, birdseed, acupuncture, bicarbonate, German medicine, <i>soursop, black vulture, snake, ginger, anamu, yoga.</i></p>
<b>Professionals</b>	<p><b>General:</b> Chinese alternative medicine, phytochemicals, herbal medicine, botanical medicine, medical botany, alternative therapeutics, plant pharmacology, alternative approach, complementary medicines, traditional medicine*, <i>natural medicine, naturopathic medicine, alternative medicines, homeopathy.</i></p> <p><b>Specific:</b> star fruit, calendula, chayote, herbal tea, ginseng, turmeric, transfer factor, bu toxicology, medicinal plants, ganoderma coffee, dololed (calendula officinalis), prontosalvivo (bushy lippia), vitamin supplements, cannabis/marijuana, magnet therapy, bull blood, magnesium chloride, Cuban scorpion extract, <i>soursop, black vulture blood, snake venom, ginger, anamu, yoga.</i></p>

\*Some professionals use the term to denote allopathic medicine Table 2: 1.2.1.

Finally, in the discourse of the professionals, the conceptualization of the CAMs was identified from their *rationale*, referring to lines of explanation or argumentation regarding the theoretical-conceptual elements that underlie CAMs. There are, in the first place, explanations from disciplines that give them a certain degree of scientificity. From this group comes the consideration of the mechanisms of action of CAMs that represent the way in which certain elements or activities affect the body and the health condition. Secondly, there are explanations based on common sense and cultural elements (Table 2: 1.1).

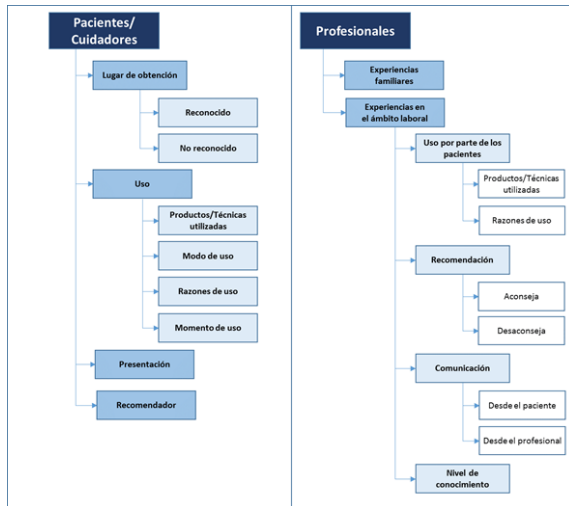
As an important element, some degree of *bias* or *disinformation* emerging among patients and caregivers was identified. This refers to inaccurate, incomplete and, sometimes, erroneous information regarding what CAMs are, such as their confusion with the benefit plans of the Colombian health system (complementary medicine as a complementary health plan); there are even doubts about the recognition of whether some practices or elements they use could be considered CAM (Table 1: 1.2). On the other hand, there are discrepancies in the use of some terms such as *traditional medicine*, which may have the opposite meaning according to the point of view of the actors: for some oncology specialists it represents allopathic medicine and for CAM professionals it represents alternative and complementary medicine.

*Experience with alternative and complementary medicines*

In this category, the ways and means in which participants relate to CAMs are identified, according to their role in requiring or providing cancer care. There is evidence of direct contact with CAMs; but also indirect contact, through third parties such as family members (both of patients and professionals), or through the patients in the case of professionals (experience from the work environment) (Figure 2).

In the experience of patients and caregivers, four relevant aspects were identified: the place where they obtain the CAMs, their use, the presentation, and who recommends them. In the case of professionals, the experience in the work environment includes appreciations about the actions and behaviors observed in their patients and aspects resulting from their own professional practice, grouped in four areas, which include the use, the recommendation they make about the CAMs, the communication about them and the level of knowledge (Figure 2).

**Figure 2.**  
Emerging categories from the experience of patients/ caregivers and professionals with alternative and complementary medicines



From the personal point of view, professionals refer experiences with close relatives (mother, father), especially those who are oncologists, and in some cases they report favorable effects. They attribute their use to having no other options after the failure of other therapeutic routes, or to considering that some CAM practices work to alleviate symptoms, an argument that is logically expressed also for use in the work environment.

For patients and caregivers, *the place where they obtain CAMs* is important, as the characteristics of the source favor a positive perception of them. They identify recognized places, such as homeopathic laboratories or naturopathic centers, referred to as sites for exclusive provision of CAMs. However, it is considered that some CAM elements can be obtained in places without such recognition, such as market squares (Table 1: 2.1).

*Usage* is the second aspect of interest. For patients and caregivers, there are features related to the way certain elements of CAMs are used that allow them to describe nuances of the experiences they have had. This view is also perceived by professionals in the approach they make to their experience from what is reported by patients. In this regard, the use of regularly consumed products such as fruits is considered

in certain circumstances an element of CAM (Table 1: 2.2.1). In other cases, the positive effect refers not only to the element, but to the way it is used (e.g., on an empty stomach) and the specific indication (e.g., stomach pain vs. flu) (Table 1: 2.2). There are also reasons for use that include general health care (physical and emotional well-being), the search for alternatives other than allopathic medicine, the perception of effectiveness for the management of specific circumstances (pain, depression and anxiety), and the possibility of curing or controlling the disease as a complementary tool to oncological management (Table 1: 2.2.3; Table 2: 2.2.1). Finally, the use of CAMs in relation to the moment of evolution of the disease is identified as an element of the experience. Thus, for most participants the diagnosis triggers the use of CAMs, and these are used throughout the evolution of the disease. For others it varies according to particular situations, for example, parallel to chemotherapy to reduce side effects or, conversely, only at the end of treatment as part of health care or with the intention of not interfering with cancer treatment (Table 1: 2.2.4).

*Presentation* is an aspect recognized mainly by patients and caregivers. It refers to the physical presentation of the products and how this relates to particular value judgments. For some patients the presentation is more than an element of recognition of CAMs: it is what they associate with positive effects. In addition, certain presentations are viewed with more confidence and less fear. For example, preferring fruits or herbs to drops or other processed products (Table 1: 2.3).

The *recommender* is the fourth element considered as part of the experience by patients and caregivers. However, a hierarchy in relation to the recommender is not clearly observed, although approval by the physician generates reassurance (Table 1: 2.4). The actors include physicians (allopathic and alternative), relatives and peers. The role that social networks can play is mentioned, without it being clear whether or not the origin of the information (who sends it) plays an important role in decision-making

regarding the use of CAMs. This subcategory connects with other sources of information accessed by patients interested in using CAMs (internet, media), with their information needs (treatment options, effectiveness, indication, interaction with their oncology treatments) and with the reasons why some use them.

On the other hand, advising or discouraging as a *recommendation* from professionals reflects their position regarding the use of CAMs by their patients. Some discourage the use of any type of CAM, others discourage using specific types of CAM in all circumstances (transfer factors), and still others discourage the use of certain forms of CAM in specific circumstances (Table 2: 2.2.2). Reversely, there are some forms of CAM that are recommended for the management of specific conditions such as dyspepsia associated with the use of aromatase inhibitors.

From the professionals' perspective, the *communication* subcategory emerges, which includes considerations on how they perceive the actions of patients and physicians, aimed at clarifying doubts, requesting or restricting information on the use of CAMs. There is a general appreciation in relation to the importance of inquiring with the patient and the recognition of a communicative process in which, upon questioning the patient, information is received about how they are using CAMs and allows for feedback.

To finish this segment, the subcategory of *level of knowledge* is included, which arises from the statements of some professionals. It refers to the identification of a need for information and knowledge on the part of professionals about CAMs, which they associate with the possibility of better professional practice in the face of the reality of patients who use CAMs. It is also evident the change of perspective of some professionals in relation to CAMs after gaining more knowledge; they move from a derogatory opinion to a perspective of recognition of the effectiveness in some practices that provide scientific evidence.

## Discussion

In this study, relevant differences were found between patients and professionals related to oncological care both in the conceptualization and in the experience with alternative medicines.

From the point of view of conceptualization, even the specific and non-specific denominations as categories common to the two groups (Figure 1) denote differences in the terms and examples used (Table 3). This suggests uneven language, and probably significant discrepancies in the origin of the information. This becomes more evident if the emphasis on the scientific foundation is taken into account as the basis of conceptualization for professionals versus conceptualization based on the expectation of CAMs as a promising option for patients and caregivers.

Previous studies have shown similar findings, in which scientific evidence on the part of care providers is associated with indifference or opposition to the use of alternative medicines and, consequently, generates an anticipation of negative responses from patients. This situation limits the communication on the subject (8,9), since, as it is derived from the results, the scientific evidence does not seem to be a relevant aspect for them. Along the same lines, discrepancies are identified in the perspectives of patients and oncologists with respect to decision-making on the use of CAMs. It has been observed that for oncologists adverse effects constitute a criterion for whether or not recommending their use. However, for patients this is not so relevant, while their possible therapeutic effectiveness is (10,11). This coincides with what our study reveals in relation to what the professional advises against and what the patient considers reason for use.

It has also been seen that personal experience by trial and error, testimonies and popular literature become relevant sources of information if they coincide with the patients' previous beliefs and views (12, 13, 14). Similarly, our results indicate that the source of information (*Recommender* in Figure 2) and the place where they are obtained play a relevant role in the



decision to use CAMs, without the treating physician playing a leading or a hierarchical role. However, both the degree of recognition of the source for obtaining them and the approval of the doctor generate greater reassurance with the use of CAMs. Recent studies indicate that the CAM user sees himself/herself as the primary administrator of his/her health care (expressed as *reasons for use* in our study), but considers that better communication with the health care provider provides more security, as does his/her belonging to a community of practitioners (15).

It has been seen that the structure of an individual's social network, as well as the role he or she plays in the network, determines the possibility of using CAMs by allowing greater access to sources of information and conditioning possibilities of knowing and evaluating various alternative therapies (16). This coincides with what was reported by some participants regarding who recommended the use and, in general, with the sources of information, since on repeated occasions it was their peers, friends and relatives who told them about the CAMs. This coincides with previous studies that indicate that family and friends occupy an important place as a source of information on CAMs (12,17).

The decision is a personal and complex process. The information that patients take and consider as adequate depends on their history, beliefs, personal situation and disease process (12). On the other hand, the person who appears as a recommender and provides information constitutes verbal authority, and can be either the doctor or the peer who gives his/her testimony, or the person who claims to have the solution to the problem. Each of them represents a different value (expertise), identification or hope in the face of the patient's need.

Approval/disapproval of traditional practices is closely related to how communities shape human behavior. In this context, it has been seen that the use of CAMs can serve as a bridge to belonging to a community (a fact that could have greater relevance in the face of a life-threatening disease). But, in turn, belonging to a community of practitioners can be perceived as a way to increase access to information about

treatment options and as a way to reduce the risk of social sanction if there is a deviation from the traditional form of treatment (16). Accordingly, for the professionals in our study there are practices that should be discouraged, but among patients this category does not emerge from communication with the physician (Figure 2). Again, physician approval creates greater reassurance, but it seems that physician approval/disapproval is not as decisive in the use of CAMs as belonging to a community of practitioners. Despite this, some patients highlight the use of CAMs only when they finish conventional therapy (time of use), which could be related to adverse medical advice.

Access to social networks through electronic media can play a relevant role in the use of CAMs, and was identified as a source of information in our study (15,18). Some studies show the relationship between Internet use and the patient's perception of self-management and the possibility of receiving support (19,20). Cancer patients have multiple psychosocial needs, as they are forced to assume changes associated with conditions of physical and emotional vulnerability. Therefore, regaining the perception of control is important, and when they autonomously make certain decisions regarding their treatment, they can experience emotional well-being.

Communication emerges as a category of experience only from the perspective of professionals. A review on the subject shows that communication difficulties are a relevant indirect risk for patient safety, referred to four categories that include differences in the philosophical values attributed to CAM between users and conventional care providers, difficulties in prescribing complementary medicines due to the lack of scientific evidence (rationale), and lack of information on CAM from conventional care providers (knowledge) (21). Communication and level of knowledge emerge from work experience, possibly related to the high frequency of use of CAMs by cancer patients (2,3) and the evidence on adverse effects and interaction with systemic treatment of cancer (21). However, it is possible that family experiences play some role

in the perception of professionals regarding the use of CAMs and generate a greater interest in understanding them better.

In any case, the differences in the perception of patients and professionals could have unfavorable consequences for the comprehensive care of cancer patients, referring above all to an affectation in the patient's adherence to treatment, deficient communication and inappropriate decision-making from both perspectives. This possibility suggests the need for additional research on the subject in our environment, because despite the coincidence of our results with previous studies, the cultural context and the Colombian health system may determine particular conditions for decision making regarding cancer treatment. In addition, these differences and their potential implications for patient care invite care providers to learn more about CAMs so that they can approach the issue with their patients with more evidence and facilitate effective communication in consultation that will decrease the risks associated with CAM use.

Our study has several limitations. We believe that despite the lower attendance at the professional focus group, the number of participants is appropriate to obtain the required information (22). However, only one group per population type was able to restrict the theoretical saturation of the data. In turn, the inclusion of non-medical participants could interfere with the open expression of the attendees given the differences in role and knowledge about CAMs. However, this possible effect was countered by working with a small group, where the moderator favored the free participation of all members, and we believe that, on the contrary, the variability enriched the discourse and revealed dissimilar perspectives. Even so, reference is made to the necessary balance between intragroup heterogeneity and homogeneity, since they also share aspects such as contact with CAMs. Similarly, we believe that the participation of a small number of caregivers gives a voice to patients who because of their clinical condition would not be able to express their opinion.

Although this was an exploratory study, the results coincide with previous reports. Additionally, we are not aware of previous studies on the subject in Colombia, so we consider that although our study was exploratory, it constitutes a relevant contribution to promote comprehensive care that properly incorporates other dimensions of care in the main course of cancer treatment, and also to stimulate research in this area.

### Conflict of interest

None of the authors have any conflict of interest.

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### Referencias

1. Frass M, Strassl RP, Friehs H, Müllner M, Kundi M, Kaye AD. Use and acceptance of complementary and alternative medicine among the general population and medical personnel: a systematic review. *Ochsner J* [internet]. 2012;12(1):45-56. Disponible en: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3307506/>
2. Sánchez R, Venegas M. Aproximaciones complementarias y alternativas al cuidado de la salud en el Instituto Nacional de Cancerología: estudio de prevalencia. *Rev Colomb Cancerol* [internet]. 2010;14(3):135-43. Disponible en: <https://www.revistacancercol.org/index.php/cancer/article/view/457>
3. Sánchez R, Ibáñez C, Suárez A. Utilización de terapias complementarias y alternativas en niños con cáncer. *Rev Salud Pública*. 2016;17(5):699-712. <https://doi.org/10.15446/rsap.v17n5.38695>

4. Rojas-Rojas A. Servicios de medicina alternativa en Colombia. *Rev Salud Pública* [internet]. 2012;14(3):470-7. Disponible en: <http://www.scielo.org.co/pdf/rsap/v14n3/v14n3a10.pdf>
5. Sierra-Ríos SP, Urrego-Mendoza DZ, Jaime-Jaimes JD. Conocimientos, actitudes y prácticas acerca de la medicina alternativa en médicos vinculados a hospitales públicos de Cundinamarca, Colombia. *Rev Salud Pública* [internet]. 2012;14(3):478-90. Disponible en: <https://revistas.unal.edu.co/index.php/revsaludpublica/article/view/24915>
6. International Agency for Research on Cancer. Global Cancer Observatory, Cancer Today [internet]. Population Fact Sheets, Colombia. 2018 [citado 2020 mar 11]. Disponible en: <https://gco.iarc.fr/today/data/factsheets/populations/170-colombia-fact-sheets.pdf>
7. Smith JA, Osborn M. Interpretative phenomenological analysis. En: *Qualitative psychology: a practical guide to research methods*. 2.<sup>a</sup> ed. Londres: Sage; 2008. p. 53-80.
8. Tasaki K, Maskarinec G, Shumay DM, Tatsumura Y, Kakai H. Communication between physicians and cancer patients about complementary and alternative medicine: exploring patients' perspectives. *Psychooncology*. 2002;11(3):212-20.
9. Gall A, Anderson K, Adams J, Matthews V, Garvey G. An exploration of healthcare providers' experiences and perspectives of traditional and complementary medicine usage and disclosure by Indigenous cancer patients. *BMC Complement Altern Med*. 2019;19(1):259. <https://doi.org/10.1186/s12906-019-2665-7>
10. Yang G, Zhang H, Gan Z, Fan Y, Gu W, Ling C. Discrepant views of oncologists and cancer patients on complementary and alternative medicine in a Chinese general hospital. *Integr Cancer Ther*. 2018;17(2):451-7. <https://doi.org/10.1177/1534735417725579>
11. Keene MR, Heslop IM, Sabesan SS, Glass BD. Complementary and alternative medicine use in cancer: a systematic review. *Complement Ther Clin Pract*. 2019;35:33-47. <https://doi.org/10.1016/j.ctcp.2019.01.004>
12. Verhoef MJ, Mulkins A, Carlson LE, Hilsden RJ, Kania A. Assessing the role of evidence in patients' evaluation of complementary therapies: a quality study. *Integr Cancer Ther*. 2007;6(4):345-53.
13. McLaughlin D, Lui C-W, Adams J. Complementary and alternative medicine use among older Australian women: a qualitative analysis. *BMC Complement Altern Med*. 2012;12(34). <https://doi.org/10.1186/1472-6882-12-34>
14. Schafer MH. Discussion networks, physician visits, and non-conventional medicine: probing the relational correlates of health care utilization. *Soc Sci Med*. 2013;87:176-84.
15. Ávila C, Grace S, Bradbury J. How do patients integrate complementary medicine with mainstream healthcare? A survey of patients' perspectives. *Complement Ther Med*. 2020;49:102317. <https://doi.org/10.1016/j.ctim.2020.102317>
16. Goldman AW, Cornwell B. Social network bridging potential and the use of complementary and alternative medicine in later life. *Soc Sci Med*. 2015;140:69-80.
17. Labidi S, Ennouri S, Rachdi H, El Benna H, Mejri N, Daoud N, et al. Use of complementary and alternative medicine in cancer: A Tunisian single-center experience. *Bull Cancer (Paris)*. 2020;107(2):209-14. <https://doi.org/10.1016/j.bulcan.2019.10.007>
18. Bauer F, Schmidt T, Eisfeld H, Dubois C, Kastrati K, Hochhaus A, et al. Information needs and usage of complementary and alternative medicine in members of a German self-help group for gastrointestinal stroma tumours, sarcoma, and renal cancer. *Complement Ther Med*. 2018;41:105-10. <https://doi.org/10.1016/j.ctim.2018.09.008>

19. Holmes MM. Why People living with and beyond cancer use the internet. *Integr Cancer Ther.* 2019;18(1):1-6. <https://doi.org/10.1177/1534735419829830>
20. Lleras de Frutos M, Casellas-Grau A, Sumalla EC, Gracia M, Borràs JM, Ochoa Arnedo C. A systematic and comprehensive review of internet use in cancer patients: Psychological factors. *Psychooncology.* 2020;29(1):6-16. <https://doi.org/10.1002/pon.5194>
21. Stub T, Quandt SA, Arcury TA, Sandberg JC, Kristoffersen AE, Musial F, et al. Perception of risk and communication among conventional and complementary health care providers involving cancer patients' use of complementary therapies: a literature review. *BMC Complement Altern Med.* 2016;16(353):14.
22. Johnson RB, Christensen L. *Educational research: quantitative, qualitative, and mixed approaches.* New York: Sage; 2014.