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CRITICAL REVIEW

# Role of complementary therapies in the understanding of primary healthcare professionals: a systematic review\*

PAPEL DAS PRÁTICAS COMPLEMENTARES NA COMPREENSÃO DOS PROFISSIONAIS DA ATENÇÃO BÁSICA: UMA REVISÃO SISTEMÁTICA

PAPEL DE PRÁTICAS COMPLEMENTARIAS EN LA COMPRESIÓN DE LOS PROFESIONALES DE ATENCIÓN PRIMARIA: UNA REVISIÓN SISTEMÁTICA

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## ABSTRACT

**Objective:** To identify the understanding of the healthcare professionals in relation to the role of complementary therapies in primary health care. **Method:** Systematic review by way of the following information sources: PubMed, CINAHL, PeriEnf, AMED, EMBASE, Web of Science, PsycInfo and Psycodoc, using the keyword Primary Health Care alone, and associated with the following keywords: Medicinal Plants, Herbal Medicine, Homeopathy, Traditional Chinese Medicine, Acupuncture, Anthroposophical Medicine. **Results:** Twenty-two studies from 1986 to 2011 were included. We identified three styles of practice: conventional medicine, complementary therapies and integrative medicine. Positioning professional practices within these three styles may facilitate discussion of concepts of health care, enhancing the health care provided as a result. **Conclusions:** The work process in primary care presents difficulties for conducting integrative and holistic health care, but this practice has been introduced over time by professionals who integrate conventional medicine and complementary therapies, concerned with the care and well-being of patients.

## DESCRIPTORS

Nursing  
Healthcare personnel  
Complementary therapies  
Primary health care  
Revision

## RESUMO

**Objetivo:** Identificar a compreensão dos profissionais de saúde quanto ao papel das práticas complementares na Atenção Básica. **Método:** Revisão sistemática cujas fontes de informação foram: PubMed, CINAHL, PeriEnf, AMED, EMBASE, Web of Science, PsycInfo e PsicoDoc, utilizando o descritor Atenção Básica associado, isoladamente, aos seguintes descritores: Plantas Medicinais, Fitoterapia, Homeopatia, Medicina Tradicional Chinesa, Acupuntura, Medicina Antroposófica. **Resultados:** Incluíram-se 22 estudos entre 1986-2011. Identificaram-se três estilos de prática: medicina convencional, práticas integrativas e medicina integrativa. Posicionar a prática profissional dentro desses três estilos pode facilitar a discussão de concepções de saúde e cuidado, ampliando o cuidado. **Conclusões:** O processo de trabalho na Atenção Básica apresenta dificuldades para a realização de cuidado integrativo e holístico, mas essa prática vem sendo introduzida com profissionais que integram medicina convencional e práticas complementares, preocupados com o cuidado e o bem-estar do paciente.

## DESCRITORES

Enfermagem  
Pessoal de saúde  
Terapias complementares  
Atenção Primária à Saúde  
Revisão

## RESUMEN

**Objetivos:** Identificar la comprensión de los profesionales sobre el papel de las prácticas complementarias en la atención primaria. **Método:** Revisión sistemática. Fuentes de datos: PubMed, CINAHL, PeriEnf, AMED, EMBASE, Web of Science, Psycodoc y PsycInfo. Descriptor Atención Primaria se asoció solo a los siguientes descriptores: plantas medicinales, fitoterapia, homeopatía, acupuntura, medicina tradicional china, medicina antroposófica. **Resultados:** Se incluyeron 22 pesquisas entre 1986-2011. Tres estilos de práctica se identificaron: medicina convencional, medicina integrativa y Terapias Complementarias. Identificar la práctica profesional dentro de estos tres estilos puede facilitar la discusión de los conceptos de salud y la atención, mejorar la atención. **Conclusiones:** El proceso de trabajo en atención primaria presenta dificultades para realización de integración y atención integral, pero esta práctica se ha introducido con profesionales que integran medicina convencional y complementaria, ocupados con la atención y bienestar del paciente.

## DESCRIPTORES

Enfermería  
Personal de salud  
Terapias complementarias  
Atención Primaria de Salud  
Revisión

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## INTRODUCTION

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The incorporation of complementary and integrative therapies into healthcare systems has been promoted by the World Health Organization (WHO) since 1970. Several countries have developed policies for integrating these therapies into primary health care (PHC)<sup>(1-3)</sup>.

In 2006 the National Policy on Integrative and Complementary Practices (PNPIC - *Política Nacional de Práticas Integrativas e Complementares*) was published within the context of the Brazilian Public Healthcare System (SUS, as per its acronym in Portuguese). This document covered complex medical systems and therapeutic resources, denominated by WHO as traditional and complementary/alternative medicine. These systems and resources whose rationalities consider the comprehensive perspective of human beings, the health-disease process, and global promotion of human health care and self-care have encouraged approaches to health care that incorporate natural mechanisms of injury prevention and recovery by way of the integration of human beings with the environment and society. This involves: medicinal plants, herbal medicine, homeopathy, traditional Chinese medicine, acupuncture, anthroposophic medicine and thermal crenotherapy<sup>(2)</sup>.

The approval of the PNPIC triggered the development of policies, programs, actions and projects in the three spheres of government in order to institutionalize complementary therapies, bringing to the SUS that which was previously restricted to users of private health care plans. However, the incorporation of these therapies still generates doubt and discomfort among healthcare professionals. Decision making in the practice of nursing care should progressively incorporate evidence from systematic reviews of health care, management, education and investigation<sup>(4)</sup>. Thus, this study aimed to identify the understanding of healthcare professionals in regards to the role of complementary and integrative therapies in primary health care.

## METHOD

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We conducted a systematic review which encompasses the grouping of primary studies in order to extract the best scientific evidence from them. The purpose is to enable the translation of the best scientific evidence into policies, practices and decisions in the healthcare context<sup>(5)</sup>.

The search was conducted in 2012 and 2013 in the following databases: PubMed, CINAHL, PeriEnf, AMED, EM-BASE, Web of Science, Psicoinfo and PsicoDoc. The references of the articles selected for this review served as a source of new inclusions in the review process known as *reference of the reference*<sup>(6)</sup>.

We organized the data collection based on the PICO strategy, with *P* for patient, *I* for intervention and *Co* for context: **P** - Primary Health Care Professionals, **I** - Experiences of Complementary Therapies, **Co** - Primary Health Care Settings.

Adjusting the objectives of the study to the PICO strategy, we defined as the guiding question of the review: *What is the understanding of healthcare professionals with regard to the role of complementary therapies in primary health care?*

In order to define the scope of integrative and complementary therapies which would be included in the review, we used those of the PNPIC<sup>(3)</sup>: medicinal plants (herbal medicine), homeopathy, traditional Chinese medicine (acupuncture), anthroposophic medicine and thermal crenotherapy.

Data collection used controlled search terms. We associated the keywords Primary Health Care/Basic Health Care with the others, separately: Medicinal Plants, Herbal Medicine, Homeopathy, Traditional Chinese Medicine, Anthroposophic Medicine and Baths. We included articles in English, Portuguese and Spanish, from 1986 to 2011.

The inclusion criteria were: articles related to attitudes/beliefs of primary health care professionals regarding the use/practice of integrative and complementary practices (ICPs). We excluded articles on practices not included in the PNPIC: cost, efficacy or quality of ICPs; patients or students using ICPs; studies done in the hospital setting.

We organized the articles in the reference manager EndNote. Each article received an identification number. The articles referring to the same study were treated as one and given a single identification number.

Two independent reviewers assessed the articles and the final selection was made by consensus, based on a comparison of the evaluation of both reviewers. We organized the analysis of the results by a modified version of the Data Extraction Guide for Quantitative and Qualitative Studies<sup>(7)</sup>. This tool provides guidance on how to transform raw data into data that can be systematically combined and analyzed. The modifications made for this study were reviewed and approved by the researchers who originally proposed the Guide.

The data were organized into empirical categories, i.e., that which emerged from the analysis. Two independent reviewers assessed the categories in terms of their respective scope and definition, with disagreements also being resolved by consensus. The frequency of the categories (*frequency effect size*) expresses the representativeness of findings of primary studies in the categories of the review, i.e., how many primary studies analyzed does this finding occur. The frequency effect size results from dividing the number of studies in

each category by the total number of studies included in the review<sup>(6)</sup>.

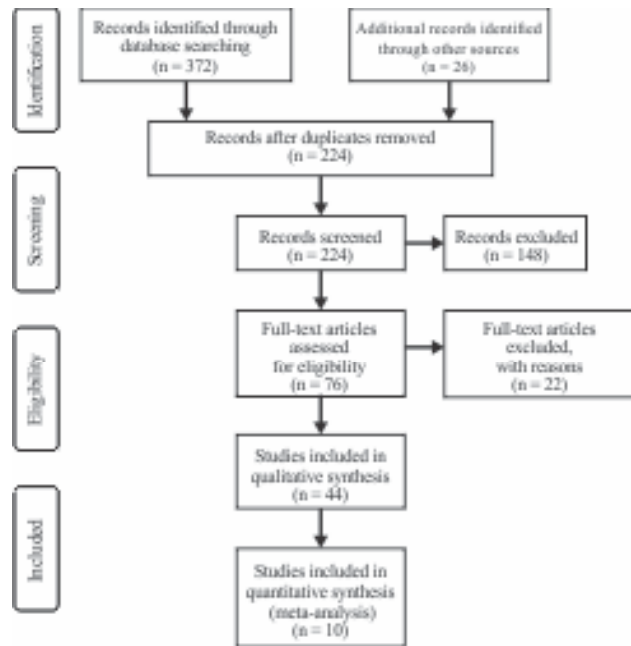
As recommended for systematic reviews aimed at providing a metasynthesis by integrating the results of qualitative and quantitative studies (*Mixed research synthesis*)<sup>(7)</sup>, the quantitative findings were *qualified*, i.e., we converted the findings of the quantitative studies into a qualitative format in order to combine them, by themes, with the findings of the qualitative studies. In other words, we treated the quantitative findings in a thematic manner in order to compose the empirical categories of the review. This procedure allowed us to group the findings of both types of primary studies into the thematic categories for reaching the meta-synthesis. The reinterpretation of the primary findings of the articles included in reviews that aggregated quantitative and qualitative primary studies allows for the assimilation and grouping of both types of data into the same groups of categorization, by a qualitative analysis which led to the meta-synthesis through integrated design (*Mixed research synthesis by integrated design*)<sup>(8)</sup>.

This research does not request an ethical evaluation of the Research Ethics Committee because it is a systematic review.

## RESULTS

We systematically reviewed 54 studies: 44 qualitative and 10 quantitative (Figure 1). We retrieved studies which took place between 1986 and 2011, published in English (51), Spanish (1) and Portuguese (2). The findings were grouped into 23 categories and in this article we present only three of them. These categories are those related to the understanding of professionals in regards to the role of ICPs in PHC. They were synthesized from the findings of 22 of the 54 studies included in the review.

The categories presented here showed a significant frequency effect size when compared to others. The categories were: health care concepts (31%); role of



**Figure 1** – Diagram of the process of inclusion and exclusion for all the studies in the systematic review (9).

professionals in relation to integrative and complementary practices (11%); and perceptions regarding practices in health care (18%). The remaining categories will be addressed in future publications.

Due to the format of journals, it is common to split the findings from a study in several articles. For the systematic review, as the studies are the point of interest, articles about the same study were treated together, as a single one. This explains the discrepancy between the number of articles<sup>(25)(10-36)</sup> and studies<sup>(22)</sup>.

The three categories discussed in this article are derived from 22 studies, totaling 4,840 PHC professionals, mainly doctors and nurses, from South Africa, Australia, Brazil, Canada, Spain, the United States, England, the Netherlands, the United Kingdom, Switzerland, New Zealand and Tasmania (Chart 1).

**Chart 1** – Studies that discussed the Role, Perceptions and Concepts of health care professionals in relation to integrative and complementary practices in primary health care - São Paulo, 2014

ID	Method	Characteristics of the Primary Health Care Professionals	Categories
E1 <sup>(10)</sup>	Interview	25 physicians with training in ICP	Concepts
E3 <sup>(11)</sup>	Questionnaire	222 general practitioners	Perceptions
E9 <sup>(12)</sup>	Interview and Focus Group	4 homeopathic doctors and 9 doctors	Concepts, Perceptions
E14 <sup>(13-14)</sup>	Questionnaire	290 general practitioners	Concepts
E20 <sup>(15)</sup>	Questionnaire	624 doctors and 157 obstetrician-gynecologists and nurses	Perceptions
E21 <sup>(16)</sup>	Interview, Case Study and Focus Group	14 doctors and 15 ICP practitioners	Concepts, Perceptions
E22 <sup>(17)</sup>	Questionnaire	166 general practitioners	Role
E23 <sup>(18)</sup>	Interview and Case Study	13 doctors and 8 ICP practitioners	Concepts, Perceptions
E26 <sup>(19-22)</sup>	Electronic Information	38 anthroposophic doctors	Concepts, Perceptions, Role
E27 <sup>(23)</sup>	Questionnaire	1,027 family physicians	Role

Continued...

...Continuation

ID	Method	Characteristics of the Primary Health Care Professionals	Categories
E28 <sup>(24)</sup>	Focus Group	16 general practitioners	Role, Perceptions
E33 <sup>(25)</sup>	Questionnaire	710 physicians with and without certification in ICP	Concepts
E34 <sup>(26)</sup>	Questionnaire	249 general practitioners	Concepts
E35 <sup>(27)</sup>	Focus Group	28 family physicians without certification in ICP	Concepts, Perceptions, Role
E36 <sup>(28)</sup>	Questionnaire	84 nurses	Perceptions, Role
E39 <sup>(29)</sup>	Questionnaire	300 general practitioners	Concepts, Perceptions
E40 <sup>(30)</sup>	Interview	27 general practitioners	Concepts, Perceptions
E42 <sup>(31-32)</sup>	Interview and Focus Group	60 professionals (doctors, nurses, physician's assistant)	Concepts, Role
E46 <sup>(33)</sup>	Questionnaire	177 professionals (doctors and nurses)	Concepts
E50 <sup>(34)</sup>	Questionnaire	360 general practitioners	Concepts, Role
E51 <sup>(35)</sup>	Questionnaire	145 general practitioners	Concepts, Role
E54 <sup>(36)</sup>	Questionnaire	69 professionals without training in ICP (doctors and nurses)	Concepts

### Health care concepts

This category grouped the results regarding the concepts that professionals held about health, health care, disease, cure and PHC, in relation to complementary therapies.

Anthroposophic doctors and general practitioners related ICPs with the union of complementary therapies, biomedicine and natural therapies; health care for prevention of diseases; fewer side effects; dependency on therapists; use of soft technologies, and consideration of the biopsychosocial context (E26, E28).

General practitioners and ICP professionals related health care in ICPs with integrative medicine; patient-centered care efficient and safe for primary health care, although they considered that both complementary practices and conventional medicine do not provide satisfactory healthcare services (E21).

Doctors and ICP professionals related health care in ICPs with consideration of physical-social-spiritual dimensions, feelings, harmony, mind-body, holism, and singularity; and with the need for standards for professional interactions and empowering patients (E23, E35). Doctors with and without certification in ICPs related health care in ICP with ethical aspects of care, concern for the biopsychosocial context, holistic doctor-patient relationships, patient satisfaction and quality of life (E33).

Doctors and nurses in primary health care units related ICP with health promotion, self-care, patient-physician relationships, and amplified understanding of health and illness (E40, E46). Professionals, especially physicians and nurses, related health care in ICPs with spiritual beliefs and practices, intuition and nutrition (E42, E54).

General practitioners related health care in ICP with individualization, singularity of health care, control, and they related integrative practices with holism and different disease approaches, in opposition to the general disease categories (E1, E3, E51). General practitioners related health care in ICPs with co-responsible patient

involvement; they did not correlate it with stimulation of the natural therapeutic powers of the body (E50).

General practitioners related health care in ICP with doctor-patient relationships, but did not consider the perspective of these practices to be more holistic than conventional medicine (E34, E39). General practitioners with favorable attitudes towards ICPs valued practices with a holistic approach (E14).

### Role of professionals in relation to integrative and complementary practices

This category included the results on the understanding of professionals regarding their role in complementary practices in PHC. The narrative of doctors and nurses showed differing views.

The understanding of physicians was divided between taking over the knowledge of ICP or leaving this to the ICP professionals. They agreed on: the importance of having a referral network and good relationships with ICP professionals (E50, E22); the need to integrate the services (E28); and mutual respect among doctors and nurses and practitioners of complementary and conventional medicine (E51).

Nurses tended to understand that their role is to help patients choose among the different ICPs, as well as to understand and respect the value systems and well-being of patients (E36).

### Perceptions about health care practices

This category included results regarding the understanding and discussion of professionals with respect to health care practices, in relation to conventional medicine and complementary therapies.

Regarding the practice of conventional medicine, homeopathic doctors reported failure, unpleasantness and limitation of PHC (E9). Regarding the ICPs, professionals with and without training in these practices reported they are holistic (E20), alternatives to biomedicine (E9), and



capable of offering benefits not achievable with conventional medicine (E39).

The results showed perceptions about the practice of integrative medicine, which combines aspects of the ICPs with conventional medicine. Professionals reported the use of ICPs in addition to biomedicine (E3), because they understand that both are integral (E9), suffer with the fragmentation caused by the evidence-based medicine (E35) and offer risks to the patients (E28). Western doctors use medicinal plants (E40); anthroposophic doctors prescribe, albeit on a smaller scale, pharmacological drugs (E26); and ICP practitioners value biomedical diagnoses (E21).

## DISCUSSION

The concepts held by professionals regarding health care in relation to complementary practices varied. There were those who related ICPs with individualization of health care, professional-patient relationships, self-care, soft technologies and the biopsychosocial-spiritual context of patients. Professionals without ICP training did not relate these practices to stimulation of the natural therapeutic powers of the body, nor did they consider these practices to be more holistic than conventional medicine.

Anthroposophical, homeopathic, and traditional Chinese medicine understand health as a balance of vital forces and the health-disease-care process as cyclical and natural aspects of the body. Based on these ideas, they oppose a list of symptoms as an expression of pathologies and the assumption that normalcy is the absence of pathology<sup>(37)</sup>, which marks the predominant biomedical perspectives, which oppose health and disease and propose the isolated control of the latter. This approach of biomedical perspectives may explain why professionals without specific training in vitality.

Fragmentation of health care is the result of ongoing subordination of medical reason to modern scientific rationality, which orients the understanding of disease as a deviation from normalcy. In this manner, what matters for the purpose of scientific knowledge is the deviation from normality and not the issue of the living individual<sup>(37)</sup>. This could explain the results that show understandings of health strongly marked by the reasoning based on scientific knowledge, which is neutral, positive and objective.

The rationales derived from the *naturist* perspective favor manifestation of the *healing power of nature* to restore health<sup>(37)</sup>. Beyond symptom relief, ICPs aim for restoration of well-being and dynamic balance, in a holistic view of health<sup>(38)</sup>. This view challenges the mechanistic and single-causal conceptions of biomedicine. The word *holistic* comes from the Greek *Holos*, *whole*, and holistic practice considers the dynamic interplay among the physical, psychosocial and spiritual dimensions of

the individual and their respective transactions with the environment<sup>(39)</sup>.

The National Policy defines ICPs as approaches that stimulate natural mechanisms of injury prevention and recovery<sup>(3)</sup>. Therefore, with the above considerations and the findings of the review in mind, we postulate that the inclusion of ICPs in primary health care requires, at the very least, that professionals respect each other's differing concepts regarding health, illness, body and care of each practice, and that it is desirable that they transform their perspectives towards more holistic approaches.

The results indicate that ICP professionals and general practitioners consider holistic approaches in health and care concepts of the ICPs as a way to reduce the side effects of the interventions of conventional medicine and increase patient satisfaction. In biomedicine, with the mechanistic conception of the body, the main part of care is diagnosis, which is sought by examinations. As ICPs are based on vitalism, human contact and formation of bonds are critical to health care. However, the results show that professionals recognize that this does not always occur.

Having fewer side effects does not mean eliminating them. For example, there are substances of plant origin with efficacy equal or superior to allopathic medicines, which in excess can be toxic and cause damage to the integrity of the body. Therefore, it is necessary to know exactly the purpose, method of preparation, dosage and storage of the plants<sup>(40)</sup>, in relation to other alternative and complementary therapies.

In pursuit of quality of life and body-mind harmony, the results show integrative practices of complementary therapies and biomedicine, creating in health care an inclusive environment, based on therapeutic pluralism. Integrative medicine appreciates advances in conventional medicine, without prejudice to practices based on other rationalities<sup>(41)</sup>.

Integrative medicine has transformative potential for PHC, as it proposes to: unite the best of different rationalities; attend to persons while integrating body, mind, spirit and culture; provide health care and cure, with the active participation of patients and various professionals; qualify as fundamental evidence that the health care process considers the wants and needs of individuals with regard to their treatment<sup>(41)</sup>. Integration requires *professional hybrids* who ponder, together with patients, the best therapeutic approach for each instance<sup>(42)</sup>.

However, integrating the best of each rationality in pursuit of better quality health care is no easy task. In the results, it was observed that caregivers in some areas of integrative medicine recognize this difficulty, since they indicate that both complementary practices and conventional medicine have failed to provide satisfactory health care results to patients.

The results indicate an interconnection between health care concepts involving complementary therapies and holistic practices, to the extent that both consider the physical-psycho-spiritual dynamics of individuals. Professionals still emphasized the necessity to: consider the ethical aspects of the health care provided; share responsibility with patients; empower patients; promote health; and stimulate the interaction of professionals in PHC.

As a result of integrating ICPs, it is possible to lose the purity of each rationality. A study<sup>(37)</sup> conducted in nine public health care centers in Rio de Janeiro, Brazil, showed that homeopathy was able to preserve the classic design of clinical treatment, keeping the representation of the body as a whole and focusing on the patient-physician relationship. However, acupuncture has not preserved the logic of Traditional Chinese Medicine medicine and has taken on the rationale of Western medicine in its place. Thus, in these services, even though acupuncturists tried to follow vitalist and global logic as their guide, the quick use of the practices of acupuncture prevailed, limited to resolution of specific pathological situations such as those in the musculoskeletal system or chronic conditions of emotional origin. Therefore, in these health care facilities in Rio de Janeiro<sup>(37)</sup>, professionals of complementary and integrative practices maintained body and disease representations typical of biomedical rationality, tending to operate in cultural syncretism.

This duality was also found in the results regarding professional roles in the implementation of complementary and integrative practices in PHC. Doctors focused their roles on proper functioning of services and nurses were focused on the well-being of patients.

In PHC in the United Kingdom, nurses recommended a greater number of treatments and offered more holistic care to their patients, when compared to doctors. Doctors focused their health care efforts on collecting information directly relevant to performing diagnosis and treatment of the complaint at hand<sup>(43)</sup>. That is, in the health care practice provided, the roles played by professionals in respect to insertion of ICPs in PHC were differentiated.

The objective of proposing the introduction of ICPs in PHC is not to find the best kind of care, but to diversify practices offered in order to cover different health care concepts, thus contributing to qualification of the health care work process and health care assistance in PHC. The results indicate complaints from professionals regarding the failure of biomedicine and their hassles with the routine in PHC, as motivating factors for the use of integrative practices.

The issue of introduction of ICPs in PHC is not just stimulation of alternate use of biomedical and complementary procedures in order to allow for universal access to alternative practices. The issue is whether, in fact, changes take place in the logic of the work process leading

to appreciation of light technologies of different health care rationalities in order to provide better health care, with integrity.

The results show that health professionals who came into contact with complementary therapies have expanded concepts of health care. However, this expansion is not always enough to change the logic behind the health care provided. This situation continues, being centered on the *concept of ontological-localist illness and mechanical-causal intervention*<sup>(44)</sup>. This points to the need for professionals to deepen their reflection on the health care concepts that they hold, involving the health care provided, attitudes and the work process in PHC<sup>(45)</sup>.

When interpreting the results, one possible limitation that it is necessary to consider is that professionals who were either strongly favorable or unfavorable to complementary practices may have been more likely to participate in the studies included in the review. This would explain the apparent bias of the results, despite the configuration adopted in the meta-synthesis.

## CONCLUSION

The implementation of the National Policy on Integrative and Complementary Practices (PNPIC) is part of the implementation process of the Brazilian Public Healthcare System (SUS). The review showed that, from the perspective of primary health care professionals, more holistic practices, because of their ability to explain and provide care in the health-disease process, can sometimes avoid some of the side effects of the interventions of conventional medical and contribute to patient satisfaction. Thus, it is possible to state that the implementation of the PNPIC in PHC could favor, in the context of the SUS, consideration of the uniqueness of patients and their families and increase satisfaction with the quality of care received. This is because health professionals who have contact with ICPs end up broadening their health care concepts.

This expansion can contribute to respectful recognition of different explanatory rationales of health care from the perspective of interculturalism in health care and, to this extent, contribute to a more comprehensive approach to the health-disease process. The review showed that in health care services where integrative medicine takes place, there is more fertile ground for reconstruction of health care and work processes of teams, given the respectful coexistence of different logics, albeit with a predominance of biomedical rationality.

That their role in the complementary therapies implementation is the appreciation of soft technologies for clarification and support of patients when opting for ICPs. In order for them to be able to provide clarification to patients regarding ICPs, it is necessary that they be trained to do so. Even if they do not become supporters

or advocates of ICPs, it is necessary that nurses have sufficient knowledge to share in the decision-making process with patients, in terms of co responsibility in health care.

Faced with limitations of access and resolvability in PHC which can generate feelings of failure in professionals, ICPs may sound like a possibility for the integrative and holistic health care that they yearn to provide to patients. To a certain extent, as we discussed, ICPs can contribute to this; however, they are not sufficient. One must bear in

mind that the comprehensiveness that professionals want to offer in health care is the result of healthcare networks, which guarantee continuity of health care across many points of service.

A meta-synthesis that was developed made it possible to state that implementation of the PNPIC in the SUS requires integration of conventional and complementary medicine practices in primary health care units, by way of syncretic and respectful coexistence.

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