Tradicional health knowledge and practices of the amazon population

Saberes e práticas tradicionais de saúde da população amazônica Conocimientos y prácticas tradicionales en salud de la población amazónica

RESUMO

Objetivo: identificar os saberes e práticas de saúde da população amazônica no uso das plantas medicinais. Método: A pesquisa refere-se a uma revisão integrativa da literatura científica realizada em publicações no período dos últimos cinco anos – de 2016 a 2021, em bases de dados BVS, LILACS, PubMed/Medline, e no Portal de periódicos da CAPES. Em todas as bases, os descritores usados foram "plantas medicinais" and "Amazônia", com o operador booleano "and". Resultados: Foram selecionados 11 artigos, que tratavam do conhecimento tradicional local sobre o uso de plantas medicinais como fundamental na manutenção da saúde nas comunidades amazônicas. Conclusão: o estudo permitiu apontara diversidade de plantas para a utilização e para o desenvolvimento de novos medicamentos, bem como a necessidade da valorização de conhecimento tradicional e sociocultural no uso dessas ervas, sejam em suas folhas, frutos, caules ou raízes.

DESCRITORES: Medicina tradicional; Conhecimentos; Atitudes e Prática em Saúde; Amazônia.

ABSTRACT

Objective: artigo tem como objetivo identificar os saberes e práticas de saúde da população amazônica no uso de plantas medicinais. Method: A research refere-se a uma revisão integrativa da literatura científica realizada em publicações no período dos últimos cinco anos - de 2016 a 2021, nas bases de dados BVS, LILACS, PubMed/Medline e Portal de periódicos da CAPES. Em todas as bases de dados, os descritores utilizados foram "plantas medicinais" e "Amazônia", com o operador booleano "e". Resultados: Foram selecionados onze artigos, que trataram do conhecimento tradicional local sobre o uso de plantas medicinais como fundamental na manutenção da saúde das comunidades amazônicas. Conclusão: o estudo identificou a diversidade de plantas para uso e desenvolvimento de novos medicamentos, bem como a necessidade de promover o conhecimento tradicional e sociocultural no uso dessas ervas, seja em suas folhas, frutos, caules ou raízes. Mais sobre o texto originalÉ necessário fornecer o texto original para ver mais informações sobre a tradução

DESCRIPTORS: Medicine Traditional; Health Knowledge; Attitudes Practice; Amazonian.

RESUMEN

Objetivo: Objetivo: identificar los saberes y prácticas de salud de lapoblación amazónica enel uso de plantas medicinales. Método: La investigación se refiere a una revisión integradora de la literatura científica realizada enpublicacionesemel período de los últimos cinco años - de 2016 a 2021, enlas bases de datos BVS, LILACS, PubMed/Medline y enel Portal de revistas CAPES. En todas las bases de datos, losdescriptores utilizados fueron "plantas medicinales" y "Amazônia", com el operador booleano "y". Resultados: Se seleccionarononce artículos, que trataban sobre los saberes tradicionales locales sobre el uso de las plantas medicinales como fundamentalesenelmantenimiento de lasaludenlascomunidades amazónicas. Conclusión: elestudiopermitióseñalarladiversidad de plantas para el uso y desarrollo de nuevos medicamentos, así como lanecesidad de valorizar losconocimientostradicionales y socioculturalesenel uso de estas hierbas, yaseaen sus hojas, frutos, tallos o raíces. **DESCRIPTORES:** Medicina tradicional; Conocimientos; Actitudes y Práctica em Salud; Amazónico

RECEBIDO EM: 09/10/2022 **APROVADO EM:** 20/11/2022

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INTRODUÇÃO

he relationship between man and plants is called, by science, as ethnobotany. This is the branch of knowledge that develops research on how medicinal practices relate to branches of medicine and biology, such as botany, pharmacology and chemistry (1).

Historically, man's relationship with plants has been complex since the first civilizations. With both hunting and gathering and agriculture, observing the effects of plants was an activity that allowed the accumulation of knowledge about the relationships of each specimen with health, thus enabling the development of ethnobotany, the science that studies the relationship of various communities and cultures with plants (2).

Plants, therefore, began to be used for various purposes, such as food, treatment of diseases and illnesses, mystical and religious rituals, trade and handicrafts. Healing through plants began to be carried out both through the medicinal view of plants and through their relationship with blessings and other rituals (1,3,4).

Traditional local knowledge about the use of medicinal plants is still widespread in Amazonian communities, both for the treatment of diseases and for aiding childbirth. There is consensus on the use of various medicinal plants. In Brazil, this relationship is mainly due to the complex cultural web of the country, which mixed Portuguese culture, African cultures and native indigenous cultures, mostly. In addition to these three major cultural manifestations, the country was also influenced by different peoples from Europe and Asia (5).

The traditional knowledge of the Amazon population is associated with the remarkable biodiversity of the region, making it a suitable place for research (2). Several types of vegetables are used for the preparation of juices, infusions and other drinks, or even applied directly to the skin, either based on their leaves, stems, roots or fruits (3).

Plants in the Amazon region take on different meanings. They can be conceived as amulets that offer protection, or even to bless children, to avoid the evil eye of other individuals, they can be used to present aromatic baths, they can be adopted in traditional births, and they can also be used in religious rituals, both indigenous and Afro--Brazilian (2).

These plants constitute a relevant element of the cultural fabric of several communities. They are used in various social activities and healing processes. If, on the one hand, they are not used as a source of income - at least not as a main source of income -, being often cultivated in homes and properties, on the other hand, they

allow the exchange of knowledge and the establishment of relationships of coexisten-

These traditional cultures and knowledge are related to medicines and knowledge of modern medicine. There is, therefore, a hybrid and holistic perspective on the health approach. In fact, the recognition of plants as sacred and of great symbolic value is common both in Afro-Brazilian religions and in indigenous tribes, and traditional figures emerge from these contexts, such as the pajé, mystical leader of tribes who use herbs to cure diseases and evils, but also for supernatural experiences⁽⁴⁾.

Other figures also emerge from these contexts, such as healers, common throughout Brazil. The healers act by correlating herbal knowledge with the idea that nature is not just a set of instruments for carrying out treatments. Its performance is thus based on the idea that there are spirits involved in natural processes, in cycles and in the very functioning of the human body (5).

There is difficulty in correlating cultural issues and the methodology for discovering the effects of applying different plants in the treatment, according to the traditional wisdom of the communities. Thus, this process of studying medicinal herbs and their compounds is complex and tortuous. In any case, it is essential for ethnopharmacology to address these correlations, since they are



the basis for understanding potential bioactives (1).

This article seeks to answer the following question: What are the knowledge and health practices of the Amazonian population in the use of medicinal plants? It also seeks to understand the diversity of manifestations of this knowledge, its transmission and its local and regional specificities.

The general objective is to identify the knowledge and health practices of the Amazonian population in the use of medicinal plants. There is a context of multiple modernities in which Western scientific knowledge interacts with traditional knowledge in intersection in the Amazon region ⁽⁶⁾.

Thus, this study discusses the role of health practices with medicinal plants in the Amazon region, based on studies produced on this topic, identifying the main knowledge and practices.

METHODOLOGY

An integrative review of the literature was carried out, which enables (7) to define concepts, review theories, evaluate evidence and analyze methodological issues on a given subject, through the synthesis of multiple published studies, being conducted systematically, with the objective of contributing to knowledge of the question proposed.

This research sought to answer the guiding question: What are the knowledge and health practices of the Amazonian population in the use of medicinal plants?

The selection of articles was carried out in the period between May 28 and May 30, 2021, in the databases of the Virtual Health Library (VHL), namely: Latin American and Caribbean Literature in Health Sciences (LILACS), Library National Medicine (NLM) of the United States (PubMed/Medline) and in the Journal Portal of the Coordination for the Improvement of Higher Education Personnel (CAPES). In all these databases, the descriptors used were "medicinal plants" and "Amazon", with the Boolean operator "AND". The languages used for these descriptors were Portuguese, English and Spanish. Access to the base was given

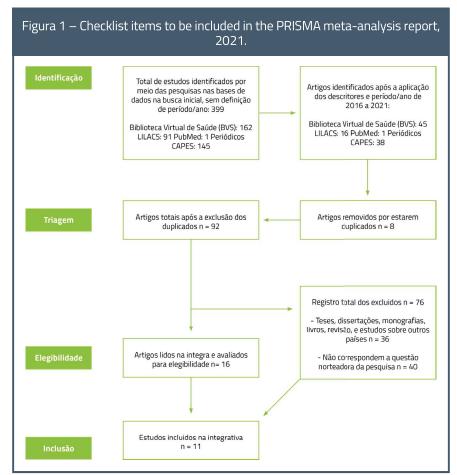
through the CAPES journal portal, through remote access to the content signed by the referred portal of the University of the State of Amazonas (UEA).

The studies that were included in this integrative review met the following inclusion criteria: studies published in the last 5 years, comprising the period between 2016 and 2021; scientific articles published in English, Spanish and Portuguese, which presented titles and abstracts addressing knowledge and health practices of the Amazonian population in the use of medicinal plants.

Documents, dissertations, theses, book chapters, official manuals, technical reports, as well as articles that did not address the use of medicinal plants for health, or that studies whose use of said plants was addressed on animals, from other countries were excluded. or of a purely pharmaceutical industrial nature.

In the process of reaching the results shown in figure 1, the analyzes of the eligibility criteria were conducted by three researchers independently, and then reanalyzed together.

In the initial search, a total of 399 articles were found, without defining a period of year. After inclusion in the filter, adding publications from 2016 to 2021, 100 publications remained for reading. After reading the titles and abstracts, 8 publications were excluded because they were duplicated, leaving 92 after this first exclusion. Of these remaining 92, based on the eligibility criteria, 76 references were removed, 40 of which did not correspond to the guiding question of the research, and 36 because they were theses, dissertations, monographs, books,



Source: Prepared by the authors (2021).

reviews, and studies on other countries, leaving 16 to be read in full. After reading these 16 articles, 5 were removed because they were purely pharmaceutical industrial in nature without sociocultural analysis, leaving 11 articles suitable for this integrative review.

The articles included were treated through the checklist of the Statement for Reporting Systematic Reviews And Meta-Analyses of Studie (PRISMA) and from these the main information about the selected texts was extracted, which were systematized in Table 1 containing: title, authors and year, population and state where the research was carried out and study design and in Table 2 with the following information: objective, knowledge and practices and study category.

For data analysis, a categorization of the articles was presented, considering the object of investigation, the participating public and the methodology used.

RESULTS

In this integrative review, 11 articles that met the previously established inclusion criteria were analyzed. Each one was published in the following journals: Revista Fitos (2), Revista Brasileira de Geografia Médica e da Saúde (1), Journal of Ethnopharmacology (2), Acta Amazonica (2), Research, Society and Development (1), Latin American and Caribbean Bulletin of Medicinal and Aromatic Plants (2), Sexuality, Health and Society -

Latin American Magazine (1).

In Table 1, it can be seen that among the publications found, the year with the highest occurrence of studies on the subject in question was 2017, with 4 works (36.4%), followed by the years 2016 and 2019, the first with 3 studies (27.3%) and the last one with 2 articles (18.2%). In reference to the language of the works, the English language and the Portuguese language had a predominance of 45.5% in each language, corresponding to 5 articles in each language accounting for 10 articles, followed by Spanish with 1 study (9.1%).

Chart 2 presents information about the knowledge and practices found in the studies regarding the use of medicinal plants, as well as the category in relation to their

Table 1- List of selected works, 2021.				
Article Title	Authors/Year	Population/ state	Method	
Ethnobotany Of Aromatic medicinal plants: preparations and uses of local flora in five rural communities located in theregionofBaixo Tocantins, Pará, Brazil. Research, SocietyandDevelopment	Silva, Sousa, Silva, Costa, Al- buquerque, Pereira, Mesquita, Silva, Cordeiro (2021)	Traditional Population/ Pará	Interviews with 78 participants. Qualitative approach	
Traditional midwives and the medicalization of childbirth in the rural region of Amazonas	Oliveira, Peralta e Sousa (2019)	Rural communities / Amazonas	Interviews with local midwives. Qualitative approach	
Parintintin healers and healers: reproduction of popular healing knowledge	Clarindo, Strachulski e Floriani (2019)	Indigenous population / Amazon	Interviews with local healers. Qualitative approach	
Ethnobotany of medicinal plants in the community of Caruaru, Isla Del Mosqueiro, Belém-PA, Brazil	Mesquita e Tavares-Martins (2018)	Traditional Population/ Pará	Semi-structured interview - Shan- non-Wiener diversity and equity indices, Quantitative approach	
Ethnobotanical Study Of medicinal plants in urban home gardens in the city of Abaetetuba, Pará state, Brazil	Palheta, Tavares-Martins, Lucas, Jardim (2017)	Urban Population/Pará	Semi-structured interview with the owners of 233 gardens selected by probabilistic sampling. Qualitative approach	
Use and traditional knowledge of Byrsonima crassifolia and B. coccolobifolia (Malpighiaceae) in a Makuxi community of the Roraima savanna, northern Brazil	Oliveira, Scudeller e Barbosa (2017)	Indigenous population/ Roraima	Semi-structured interview with 60 participants. Qualitative approach	
Ethnobotanicalstudyofantimalarialplants in themi- ddleregionofthe Negro River, Amazonas, Brazil	Tomchinsky, Ming, Kinupp, Hidalgo, Chaves (2017)	Traditional communities/ Amazonas	Interviews with 52 experts from eight communities in Barcelos. Qualitative approach	
Culture-BoundSyndromesof a BrazilianAmazonRiverinepopulation: Tentativecorrespondencebetweentraditionalandconventional medicine termsandpossibleethnopharmacologicalimplications	Pagani, Santos e Rodrigues (2017)	Riverside population/ Amazonas	Interviews with 59 healers. Qualitative approach	

Ethnobotany of Medicinal Plants Cultivated in Backyards in the Algodoal District in Abaetetuba/PA	Ferreira, Rodrigues e Costa (2016)	Traditional population / Pará	Semi-structured interview with 44 residents of the Algodoal neighborhood. Quantitative approach
Chemistry and ethnopharmacology of mystical plants in an Amazonian community	Ferreira e Tavares-Martins (2016)	Traditional population/ Pará	Dialogued semi-structured interview. Qualitative approach
Antimalarialplantsusedbyindigenouspeopleof- theUpper Rio Negro in Amazonas, Brazil	Kffuri, Lopes, Ming, Odonne, Kinupp (2016)	Indigenous/Amazon population	Participant observation, semi-s- tructured interview and ethnobo- tanical walks with 89 informants in five indigenous communities
Source: Prepared by the authors (2021).			

Table 2 – Summary of medicinal plants in the social and health dimension, 2021.						
Objective	Knowledge and Practices	Main Dimension Addressed				
To survey the medicinal and aromatic flora used by the residents of five rural communities, as well as the indications, the most used plant parts, the methods of preparing home remedies and verify the agreement values of the main use of the species	In these communities, aromatic medicinal plants, in addition to treating diseases, are part of the culture, customs and strengthen social and coexistence relationships.	Social				
To analyze the performance of midwives in rural communities in an Extractive Reserve in the Amazon, describing their current roles, how they produce and reproduce their practices and how the interaction between scientific and traditional knowledge takes place	The interaction between scientific and traditional knowledge happens even when there is invisibility to the practices and knowledge of midwives. However, recognizing these other practices should be a way to design public policies that are more adequate to the social reality of women in the Amazon.	Health				
Discuss the knowledge related to the cure of diseases, moved in a context of multiple modernities, by healers located in the southern region of Brazil and by Parintintin indigenous people located in the north, in the State of Amazonas	Knowledge and practices that have a similar cognitive base and that are metamorphosing over the years are valued, organizing by and through them other spatial experiences, but it demonstrates on the practices driven by institutions that end up not valuing cultures	Social				
Study ethnobotany the medicinal plants of the community of Caruaru, Ilha de Mosqueiro-PA, and seek their phytochemical and pharmacological applications	Studies in traditional communities are important because they have the valuable mission of rescuing and keeping this knowledge alive, in order to understand and improve human relations with plant resources.	Social				
Evaluate, from an ethnobotanical perspective, the medicinal plants that occur in urban residential gardens in northern Brazil	We identified 124 species in 107 genera and 55 families. Of the medicinal species identified, 17.6% were considered effective in the treatment of infectious and parasitic diseases. The evaluated gardens are home to a great diversity of medicinal species	Health				
To investigate the knowledge and traditional uses of the mirixis in the Darora Indigenous Community, of the Makuxi ethnic group, in the São Marcos Indigenous Land, in the state of Roraima	The results showed that both species are used for purposes in the food, fuel and medicinal categories in the Darora Community, and knowledge is widely shared between men and women, regardless of age group.	Health/ Social				
To study the use of antimalarial plants in the municipality of Barcelos, Amazonas, Brazil	Our results indicate that the population of Barcelos has a rich knowledge about the use of antimalarial medicinal plants and can contribute to the development of new antimalarial drugs.	Health				



To report the clinical manifestations and therapeutic resources used for the treatment of CBS among some riverside inhabitants of the Brazilian Amazon

It was possible to verify the proposition of pharmacological studies directed to the natural resources used by these communities

Health

Carry out a survey of medicinal plants occurring in the backyards of residents of the Algodoal neighborhood in Abaetetuba, Pará, as well as systematize and analyze information about the species used for therapeutic purposes, aiming to record and preserve residents' knowledge about the use of medicinal plants grown in their backyards and their possibilities of pharmacological action

Among the most frequent indications for the use of remedies Health are diseases of the digestive system and cultural diseases, with more than 20% of indications each. In this way, it was possible to verify the great knowledge about the use of medicinal plants cultivated in the urban backyards of Abaetetuba

Carry out a survey of mystical plants used by the Caruaru Community, providing chemical and pharmacological data on the cited species

There was an expressive cultural use of vegetables, which has Social been transmitted to subsequent generations, mainly to women, considered as managers of the home

Document the medicinal plants used against malaria by indigenous peoples in the Upper Rio Negro region and review the literature on the antimalarial activity and the traditional use of the mentioned species

Local traditional knowledge about the use of antimalarials is still widespread in the indigenous communities of the Upper Rio Negro, where 46 species of plants used against malaria were registered, but little valued in biomedical analyzes

Health

Source: Prepared by the authors (2021).

use in the studied communities.

According to Table 02, all 11 selected texts address the context of health, however 4 (four) works had a main focus on the social context with the sociocultural dimension, with the use of medicinal plants in the transmission of knowledge between generations and between the community, thereby creating a social web. Another 6 (six) works refer to the difficulty of accessing health services and about popular knowledge and its importance in therapeutic practice, and 1 (one) text addressed both dimensions, both sociocultural and health practices with medicinal plants.

Most articles refer to the use of medicinal plants and their care practices aimed at meeting health needs that can be cared for within the family and community. One of them addresses the use of medicinal plants in practices of traditional midwives during labor and birth and two deal with knowledge and practices of specific diseases, related to the ethnobotany of antimalarial plants, and another study refers to the use of antimalarial plants in communities indigenous.

Regarding the investigated public, 3 (three) works were conducted with indigenous populations, two in the state of Amazonas and one in Roraima. 4 (four) articles deal with traditional communities and these studies took place in the state of Pará, another study addressed the use of medicinal plants in the urban context. Three other studies address traditional populations.

DISCUSSION

With regard to the sociocultural aspects of health care practices, the use of medicinal plants aggregates popular care practices that go beyond the dimensions of health practices, enabling exchanges of knowledge, knowledge, cultures, strengthening social relationships and coexistence (6).

The literature emphasizes the importance of these practices due to the dimension of their cultural value, and they should be considered in discussions about public health, since this population uses such practices as a strategy of social and cultural resistance, as a means of confronting the inequalities of services and public policies in society Brazilian (8).

Attributing a differentiated and harmonious relationship that traditional populations establish with nature in the use of medicinal plants. Such resources rescue and keep knowledge alive between generations, establishing a web of social relations with the community in which they are inserted

Among the forms of socialization of care knowledge, the family was the most cited by the authors. In some cases, it is possible to find a predominance of females playing the role of facilitators for the transmission of knowledge to the next generations of the family (1), as well as in the study in a community in Caruaru⁽⁸⁾, which reports that the women are mainly housewives and men carry out activities related to agriculture with the cultivation of cassava for the manufacture of flour. However, two women in the community manufacture different types of flour based on the education they received from their mothers and today they teach their children about this activity, the same applies to the knowledge of using medicinal plants. One can see female empowerment and the sociocultural dimensions of health.

In the present research, two studies reported the use of medicinal plants in mystical practices such as the act of blessing, removing the "evil eye", removing negative energies, using natural resources, such as plants for the preparation of baths, teas, syrups (1.10). In one of the studies (11), the residents of the neighborhood of Algodoal, a riverside population, report that they use the sword of São Jorge plant to protect their homes and ward off the "evil eye" and, also, exert an ornamental character on the façade of the street. residence. In the study (8) carried out in the Caruaru Community, in a traditional population, there is a belief in the ability of some plants to remove negative energies from third parties, using these in the preparation of scent baths and baths for unloading.

The use of natural therapeutic resources was identified in traditional, riverside, indigenous and urban populations. A study (2) with populations living along the Rio Negro, in the municipality of Barcelos, Amazonas, addressed the factors that may be associated with the use of antimalarial plants and found the ease or difficulty in accessing them, their safety, their efficiency in treatment as well as access to other forms of treatment. In another study (3) the knowledge and traditional uses of mirixis in the Darora Indigenous Community, of the Makuxi ethnic group, in the São Marcos Indigenous Land, in the state of Roraima, were investigated, and the uses of this plant for purposes of food, fuel and medications.

Thus, in the analyzed practices, it is noticed that in the urban area of a city it was reported that this urban population, despite having access to health services more easily when compared to traditional populations, residents who have a vegetable garden in their homes cultivate medicinal plants and these are used not only for therapeutic purposes, but also as a reflection of their cultural heritage(12).

Given the above, it is clear that the dynamics of knowledge production and health care practices of the Amazonian population with medicinal plants have a series of aspects that include family learning and learning from past generations, observation, experimentation and socialization of knowledge in social groups.

Another point worth mentioning is the health practices of the population in community and family care, expressed in the face of the difficulties in providing the necessary care to all individuals, and the mission to promote universal access to health, highlighting the potential of medicinal plants in the treatment of various diseases and ailments (6).

In fact, there are studies that point out that medicinal plants are the only option for individuals to treat their illnesses, or even alleviate the symptoms suffered, es-

pecially when they live in communities far from urban centers, without access to medicines offered in health units. (13).

Even in urban environments, many individuals are in remote areas, or live with a lack of medicines in public health units, and do not have the financial resources to purchase them in private pharmacies. The use of medicinal plants for maintaining or restoring good health is valuable in the context of several communities in Brazil, as well as in some urban centers. These plants, often grown in backyards, are seen as first-line treatments for many ailments, as well as representing a low-cost alternative to industrialized medicines (12).

In popular wisdom, they have indications similar to those found in the medical literature, such as fever, flu and infections for celery and stomach, nausea and liver for boldo, for example (14). However, traditional knowledge is not always expressed in positive results in the use of plants. There are cases of plants used to repel insects that resulted in erythema and vesicles. On the other hand, there are reports of plants with positive results in contraception, by regulating sperm volume (1).

Medicinal plant teas, in fact, are indicated for a series of illnesses, such as pain, intestinal and stomach problems, liver diseases, female reproductive diseases and various spiritual ailments (11,12). Traditional knowledge and techniques are also important in acting as midwives, using homemade herbal teas such as cumin and beard tea to accelerate contractions, and cotton leaf tea to expel the placenta (9).

Validation of the efficacy of these drugs is still needed. These studies (2,10) will allow the development of new medicines for malaria, eventually spreading the use of traditional medicines in local and cheaper health systems, taking into account the cultural aspects of curing diseases.

In many localities, the populations, as a representation of their geographical location, have a high and comprehensive knowledge about the medicinal plants with which they live. This knowledge leads to the cultivation of many plants in urban backyards and small rural properties, aiming at their own consumption, both in isolation and in order to complement official medicine (11).

Medicinal plants are part of the gardens of many homes and are propagated in communities, and are even used against behavioral disorders. There are plantations in urban regions, such as Ponta Grossa, in the state of Paraná (6), as well as in Abaetetuba, in Pará $^{\scriptscriptstyle{(11,12)}}$ and in Caruaru, on the island of Mosqueiro, in Belém, in Pará (8).

There is difficulty in correlating cultural issues and the methodology for discovering the effects of applying different plants in a given treatment, according to the traditional wisdom of the communities. Thus, this process of studying medicinal herbs and their compounds is complex. In any case, it is essential for ethnopharmacology to address these correlations, since they are the basis for understanding bioactive potentials

Despite the great variety present in the Brazilian flora and all the cultural expressions in the use of plants, including medicinal ones, observed in Brazil, the study on the effectiveness of these species in treatments and their compounds for the development of new drugs is still scarce, given the magnitude of research possibilities. The potential is huge, but it is a branch of research that is still in its initial phase⁽⁸⁾. The Amazon region, therefore, stands out for its inestimable wealth in natural resources for the treatment of diseases of the riverside populations, in addition to being ideal for the development of studies and research.

CONCLUSION

The Amazonian population is defined by the diversity of races, ethnicities, peoples, religions, cultures, with a variety of ecosystems and biodiversity being characteristic of the Brazilian rural population, represented by traditional populations.

This population has traditional knowledge and techniques of healing and care, passed on to them culturally varied knowledge over time, with integrated practices acquired from generation to generation. The importance of cultural appreciation in prac-

tices for the health of traditional peoples as a gift of reciprocity, because, among these populations, the value of things cannot be greater than the value of relationships, with symbolism being fundamental to social life.

The articles in this integrative review on the subject considered evident holistic perspectives on knowledge and practices, and presented themselves with similar cognitive bases, in a process of resistance to these experiences of peoples over time, emphasizing traditional cures and care as necessary ways of life., in addition to being an alternative caused by minimal access to effective and efficient public health policies of the Unified Health System (SUS). Practices are part of their cultures, perpetuating knowledge that

lacks recognition by health professionals and related sciences.

However, in Amazonian communities, the reports of traditional populations refer to the use of medicinal plants for the treatment of diseases, cure and care culturally experienced in the customs and coexistence with older people, which strengthen the dissemination of knowledge to younger people, being this social relationship of mutual respect by being part of the coexistence of this population, needy and made invisible by the health care offered by the SUS, as well as by health professionals who distance themselves from the sociocultural approach of this context and ontological relationship with nature.

The interaction between SUS health professionals - scientific and traditional knowledge - happens when society recognizes such practices as being a way to design public policies that are adequate to the social reality of traditional peoples and their relationship with nature as a way of life.

It is necessary to link the appreciation of traditional practices with medical-scientific knowledge, for the recognition and construction of social justice in the social and cultural fields of indigenous peoples, who have the right to interact with autonomy, popular participation and experience their socio-environmental diversity in the construction of environmental rationales related to the quality of life of these peoples.

REFERÊNCIAS

1.Ferreira, L. R.; Tavares-Martins, A. C. Química e etnofarmacologia de plantas místicas em uma comunidade amazônica. Revista Fitos, 10(3):220-372, 2016. Disponível em: https://doi.org/10.5935/2446-4775.20160024. Acesso em: 06/06/2021.

2.Tomchinsky, B.; Ming, L. C.; Kinupp, V. F.; Hidalgo, A. D. F.; Chaves, F. C. M. Ethnobotanicalstudyofantimalarialplants in themiddleregionofthe Negro River, Amazonas, Brazil. ActaAmazonica, 47:203-212, 2017. Disponívelem: https://doi.org/10.1590/1809-4392201701191. Acessoem: 09/06/21.

3.Oliveira, R. L. C. D.; Scudeller, V. V.; Barbosa, R. I. Use andtraditionalknowledgeofByrsonimacrassifoliaand B. coccolobifolia (Malpighiaceae) in a Makuxicommunityofthe Roraima savanna, northernBrazil. Acta Amazonica, 47:133-140, 2017. Disponível em: https://doi.org/10.1590/1809-4392201600796. Acesso em: 10/06/21.

4.Strachulski, J., de Almeida Silva, A., &Floriani, N. (2021). Força da floresta, saúde e doença: o uso da flora medicinal pelo povo Parintintin. Cerrados, 19(1), 329-360.

5.Sousa, C. S. de, da Silva, L. A., Parry, M. M., Nascimento, A. C. L., Herrera, R. C., &Parry, S. M. (2019). Plantas medicinales utilizadas enla Agrovila Princesa del Xingu, Altamira, Pará. Revista Cubana de Plantas Medicinales, 24(3), 1-16.

6.Clarindo, M. F.; Strachulski, J.; Floriani, N. Curandeiros parintintin e benzedeiras: reprodução do saber popular de cura. Hygeia-Revista Brasileira de Geografia Médica e da Saúde, 15(31): 105-124, 2019. Disponível em: http://dx.doi.org/10.14393/Hygeia153148560.Acessoem: 07/06/2021.

7.Whittemore, R.; Knafl, K. The integrative review: updated methodology. Journal of advanced nursing, 52(5):546-553, 2005. Disponívelem: https:// doi.org/10.1111/j.1365-2648.2005.03621.x.Acesso em: 30 maio 2021.

8. Mesquita, U.; Tavares-Martins, A. C. C. Etnobotánica de plantas medicinalesenlacomunidad de Caruarú, Isladel Mosqueiro, Belém-PA, Brasil. BoletínLatinoamericano y del Caribe de Plantas Medicinales y aromáticas, 17(2): 130-159, 2018. Disponível em: https://www.blacpma.usach. cl/sites/blacpma/files/articulo_4_-_1399_-_130_-_159_0.pdf. Acesso em: 10/06/21.

9.Oliveira, R. D. S. D.; Peralta, N.; Sousa, M. D. J. S. As parteiras tradicionais e a medicalização do parto na região rural do Amazonas. Sexualidad, Salud y Sociedad (Rio de Janeiro), 79-100, 2020. Disponível em: http://dx.doi.org/10.1590/1984-6487.sess.2019.33.05.a. Acesso em: 10/06/21.

10.Kffuri, C. W.; Lopes, M. A.; Ming, L. C.; Odonne, G.; Kinupp, V. F. Antimalarialplantsusedbyindigenouspeopleofthe Upper Rio Negro in Amazonas, Brazil. Journalofethnopharmacology, 178: 188–198, 2016. Disponível em: http://dx.doi.org/10.1016/j.jep.2015.11.048. Acesso em: 06/06/21.

11.Ferreira, L. B.; Rodrigues, M. O.; Costa, J. M. Etnobotânica das plantas medicinais cultivadas nos quintais do bairro de Algodoal em Abaetetuba/PA. Revista Fitos, 10(3): 220-372, 2017. Disponível em: https://doi. org/10.5935/2446-4775.20160020. Acesso em: 08/06/21.

12.Palheta, I. C.; Tavares-Martins, A. C. C.; Lucas, F. C. A.; Jardim, M. A. G. Ethnobotanical study of medicinal plants in urban home gardens in the city of Abaetetuba, Pará state, Brazil. BoletínLatinoamericano y del Caribe de Plantas Medicinalesy Aromáticas, 16(3): 206-262, 2017. Disponível em: https://www.blacpma.usach.cl/sites/blacpma/files/articulo_2_-_1221_-_206_-_262.pdf. Acesso em: 10/06/21.

13.Silva, A. F.; Sousa, R. L.; Silva, S. G.; Costa, J. M.; Albuquerque, L. C. S.; Pereira, M. G.; Mesquita, S. dos S.; et al. Ethnobotanyofaromatic medicinal plants: preparations and uses of local flora in five rural communities located in theregionofBaixo Tocantins, Pará, Brazil. Research, Societyand-Development, 10(1): e9510111284-e9510111284, 2021. Disponível em: https://doi.org/10.33448/rsd-v10i1.11284. Acesso em: 08/06/21.

14. Badke, M. R.; Somavilla, C. A.; Heisler, E. V.; Andrade, A. D.; Budó, M. D. L. D., Garlet, T. M. B. Saber popular: uso de plantas medicinais como forma terapêutica no cuidado à saúde. Rev. enferm. UFSM, 6(2): 225-234, 2016. Disponível em: https://doi.org/10.5902/2179769217945. Acesso em: 10/06/21.

15. Pagani, E. F. L.; Santos, J.; Rodrigues, E. Culture-BoundSyndromesof a BrazilianAmazonRiverinepopulation: Tentativecorrespondencebetweentraditionalandconventional medicine termsandpossibleethnopharmacologicalimplications. Journalofethnopharmacology, 203: 80-89, 2017. Disponível em: https://doi.org/10.1016/j.jep.2017.03.024. Acesso em: 10/06/21.

16.Mattos, G.; Camargo, A.; Sousa, C. A. D.; Zeni, A. L. B. Plantas medicinais e fitoterápicos na Atenção Primária em Saúde: percepção dos profissionais. Ciência & Saúde Coletiva, 23: 3735-3744, 2018. Disponível em: https://doi.org/10.1590/1413-812320182311.23572016. Acesso em: 10/06/21.