

## Review Article

# The Confrontation between Ethnopharmacology and Pharmacological Tests of Medicinal Plants Associated with Mental and Neurological Disorders

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For neurological disorders, pharmacological tests have shown promising results in the reduction of side effects when using plants with known therapeutic effects in the treatment of some types of dementia. Therefore, the goals of this study are to gather data about the major medicinal plants used in the nervous system as described in ethnopharmacological surveys from South America and Brazil and to compare this data with the results from pharmacological tests on the active principles of those same plants found in the scientific literature. After collecting the data about each plant, their respective popular indication was compared with the results found through pharmacological tests. The discrepancy rate between the effects observed by ethnopharmacological and pharmacological methods in this study is greater than 50%. In conclusion, despite the importance of ethnopharmacological data, it is important to make comparisons with pharmacological tests for the same plants, since the pharmacological studies, although few, have shown a high rate of discrepancy in the results.

## 1. Introduction

The knowledge of medicinal plants for therapeutic purposes originated from indigenous tribal cultures [1–4] or ancient civilizations such as those once found in Iran, India, or China [1–3, 5–7] and was passed from generation to generation mostly by means of oral tradition. Presently, knowledge is commonly limited to a village and rural areas or by families isolated from urban centers [8]. Most likely, original information of plants used for therapeutic purpose underwent modifications through time. This was due to their discovery by trial and error over many generations and the oral transmission of information rather than through writing.

A previous study associated culturally propagated therapeutic effects of different medicinal plants obtained by ethnopharmacological/ethnobotanical means with those found in

laboratory tests, showing approximately 66% discrepancy in the results [9]. Trading and distribution mistakes [10], similarity of plant names for different species [11], presence of impurities during preparation from other plants, insects, and mushrooms [12], and unexpected reactions and interactions with the active compounds [13] are all examples of commonly encountered problems in the therapeutic use of medicinal plants.

It is not suggested that the medicinal use of plants should be banned, decreased, or hampered. However, there is a need for each procedure to be evaluated by government agencies, institutions, and specialists who understand the therapeutic use of biodiversity in societies with an increasing interest in alternative treatments [6, 14, 15] or in populations with limited or no access to other types of therapeutic resources. Medicinal plant-based therapy may offer benefits,

like decreased side effects [16–18], higher autonomy for individuals in caring for their own health [3], reduced or nonexistent costs, and easy access for social groups located in inaccessible areas or away from urban centers and for people in poor urban areas with limited or no access to a healthcare system [6, 14, 15, 19, 20]. Indeed, those groups rely on alternative therapeutic methods for their health care, especially those derived from local medicinal plants, which is a major issue in countries with higher income gaps.

Many ethnopharmacological surveys were performed in countries and regions representing the greatest biodiversity to identify plants used, with the aim of preserving the cultural heritage of the plant therapy [1–3, 5–7, 21, 22] and acquiring new active compounds for the pharmaceutical industry [8]. Brazil presents the largest biodiversity on the planet [23] and has a large amount of unexplored resources available for ethnopharmacological and herbal studies given that only 16% of Brazil's medicinal plants or just 8% of Brazilian national flora [24] has been evaluated for therapeutic potential [25]. This country represents around 47% of all territories of the South American continent.

Countries in South America present important data about medicinal plants, because of their specific locations in the Andean region, close/into the Amazon Forest [8] or the pampas. Indeed, the use of some medicinal plants was first found in the population in the Andes Ridge, in the pampas, Patagonia [10], or Brazilian's savanna (cerrado) [9]. Probably because of the large population or size, most of the studies in South America are found in Brazil, while ethnopharmacological studies are incipient in other countries in this continent [8, 10].

However, quality or reliability of medicinal plant effects cannot be ensured if ethnobotanical studies do not provide laboratory verification of the effects when prescribing compounds derived from those medicinal plants. Healthcare professionals and patients should note that studies about the correspondence or discrepancy between ethnopharmacological knowledge and laboratory tests for the same plant are lacking [9] and must be done for each class of drug.

There is a growing evidence from *in vitro*, animal, and clinical studies reporting that medicinal plants might be beneficial for treating various mental and neurological disorders including Alzheimer disease, depression, anxiety, and insomnia [363–366]. For neurological disorders, in particular, pharmacological tests have shown promising results in the reduction of side effects when using plants with known therapeutic effects in the treatment of some types of dementia [18, 22, 367–372]. Medicinal plants have been sought as an alternative therapy [18, 373–375] owing to the inefficacy of some industrial medications on certain diseases, such as degenerative ones. Examples are the use of *Melissa officinalis*, *Salvia officinalis*, *Ginkgo biloba*, and *Huperzia serrata* for treating the symptoms of Alzheimer disease [18, 373–375].

The problem is that, especially in developing and/or populated countries, people rely on medicinal plants as primary healthcare [376]. The situation is true for mental and neurological disorders. Patient complaints associated directly or indirectly with neurological or neuropsychiatric disorders, such as headache, insomnia, amnesia, anxiety, or

depression, are very common [146, 298, 377, 378], and the use of medicinal plants for these purposes is very frequent in populated countries such as Brazil, India, and China [1–3, 5–7, 22] but without support of adequate pharmacological tests.

Considering the errors in the use and sale of alternative medicines as a whole, we hypothesize that the same errors could happen with plants that act directly on the nervous system. Therefore, the goal of this study is to gather data about the major medicinal plants used in the neural system, as described in ethnopharmacological surveys from South America like in Brazil and compare this data with the results from pharmacological tests on the active principles of those same plants found in the scientific literature. Specifically, this study intends to present reliable data for the use of medicinal plants in primary healthcare and assisting conventional treatments of neurological disorders.

## 2. Materials and Methods

This study was done through literature review of ethnopharmacological surveys on the medicinal plants used by groups in South America (with emphasis on Brazil) found in academic databases (MEDLINE, LILACS, Scopus, SciELO, Google Academic, and Elsevier). The terms searched were ethnobotanical studies, medicinal plants, ethnopharmacology, neural system, South America, and Brazil. The search was restricted to the most recent and classical articles/books written in Portuguese, English, or Spanish. After collecting the data about each plant, their respective popular indication was compared with the results found through pharmacological tests.

For the first phase, 55 ethnobotanical survey articles were selected and then the most commonly used plants by the population for treating neural system disorders were identified. A table was prepared with data regarding family, scientific name, part of the plant utilized, preparation method, indications, and comparison with pharmacological tests.

In the second phase, 181 articles in which pharmacological tests had been performed with the chosen plants were selected. Unfortunately, scientific tests for the proposed indication or toxicity for all the plants could not be found.

Statistical analysis was done using central tendency measures such as modal frequency.

## 3. Results

Data on South American medicinal plants that act on the nervous system was summarized by family, scientific name, part of the plant utilized, preparation method, indications, and comparison with pharmacological tests (Table 1). The most cited families were Lamiaceae (24/138), Asteraceae (16/138), and Verbenaceae (6/138), representing 33.7% of the medicinal plants analyzed (Figure 1).

The most common indications, according to ethnopharmacological surveys, were calmative/sedative (72/167), analgesic (39/167), and headache (35/167), representing 86.2% of all indications (Figure 2).

Ethnobotanical surveys revealed that the leaves (70/160) and the whole plant (13/160) amounted to 51.7% of all plant

TABLE 1: Family names, forms of preparation, used part of the plants, medicinal effects cited by population, the pharmacological effects tested for cited plants with the references, and the divergence between the cited effects by population and pharmacological tests.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
<b>Acanthaceae</b>				
<i>Hygrophila tytttha</i> Leonard/Tame-male	Infusion/Part air plant	Calmative [26]	Anxiolytic effect, anticonvulsant and sedative [26]	No
<i>Justicia pectoralis</i> Jacq./Anador	Decoction/Leaf	Headache [27]	Anxiolytic and depressor Neural Central System [28], analgesic and anti-inflammatory [29], estrogenic, progestagenic and anti-inflammatory effects [30], antioxidant [31]	No
<b>Alismataceae</b>				
<i>Echinodorus grandiflorus</i> (Cham. & Schltdl.) Mich./Hat leatherback	Decoction/Leaf	Analgesic [21]	Anti-inflammatory and analgesic [32, 33], diuretic [33], antihypertensive [34, 35]	No
<b>Amaranthaceae</b>				
<i>Alternanthera paronychioides</i> St-Hil./Anador	Not found/Leaf, stalk	Analgesic [36]	Antioxidant [37]	Yes
<b>Apiaceae</b>				
<i>Apium graveolens</i> L./Celery	Not found/Complete plant	Calmative [36]	Vasorelaxant and antihypertensive [38]	Yes
<i>Coriandrum sativum</i> L./Coriander	Infusion/Seed	Headache [39]	Antioxidant [40], anti-inflammatory [41], antibacterial [42], anxiolytic, sedative and muscle relaxant [43], antifungal [44], hypoglycemic, hypolipidemic and hepatoprotective [45], analgesic [46]	No
<i>Pimpinella anisum</i> L./Fennel	Infusion/Seed	Calmative [7, 27, 39, 47–49]	Antibacterial [50], neuroprotective and anticonvulsant [51], antiviral and immunostimulating [52], antioxidant [53], anticancer [54]	No
<i>Foeniculum vulgare</i> Mill./Fennel	Decoction/Stalk	Headache and calmative [13, 36, 55–60]	Antimicrobial [61], diuretic [62], antihelminthic [63], antioxidant [64], anxiolytic [65]	No
<b>Aquifoliaceae</b>				
<i>Ilex paraguariensis</i> /Erva Mate	Infusion/leaves, branches	Stimulant [66]	Stimulant [66]	No
<b>Araliaceae</b>				
<i>Didymopanax macrocarpum</i> (C. & S.) Seem./ Five leaves	Compress, bathe/Leaf	Analgesic [67]	Not found	Not found
<i>Hedera helix</i> /Hiedra	Cataplasm/Leaf	Analgesic, neuritis, neuralgia [68]	Expectorant and antitussive [69], mucolytic and bronchodilator [70], anti-inflammatory [71]	No
<b>Aristolochiaceae</b>				
<i>Aristolochia esperanzae</i> O. Kuntze./Papo de peru, cipo-millhomem	Decoction/Complete plant	Analgesic [67]	Antiophidic activity [72], antimicrobial [73]	Yes
<i>Aristolochia gilbertii</i> Hook/Milhomem	Infusion/Root	Headache [7]	Not found	Not found

TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
<i>Aristolochia melastoma</i> Manso ex. Duchtra/Capitãozinho	Decoction/Root, leaf	Sedative [67]	Not found	Not found
Asteraceae				
<i>Achillea millefolium</i> L./Ponta-alívio	Decoction/Complete plant	Calmative, analgesic [21, 36, 47, 57, 74, 75]	Immunostimulating [76]	Yes
<i>Achyrocline satureioides</i> D.C./Macela	Infusion/Flower	Sedative, calmative, headache [56, 67, 75, 77, 78]	Anticancer [79], calmative effect, anti-inflammatory and antispasmodic [80], antiviral [81]	No
<i>Artemisia absinthium</i> L./Losna	Decoction/Leaf	Analgesic [21, 82]	Anticancer [83], antifungal [84], antibacterial [85], antileishmanial [86]	Yes
<i>Artemisia camphorata</i> Vill./Camphor	Infusion/Leaves	Calmative [58] antiepileptic [87]	Not found	Not found
<i>Artemisia vulgaris</i> L./Artemisia	Not found	Headache [88]	Antifungal [89]	Yes
<i>Chamomilla recutita</i> (L.) Rauschter/Camomile	Infusion/Flower	Calmative, sedative [36, 39, 48, 57, 90–92]	Antibacterial and anti-inflammatory [92, 93], gastroprotection [94], antihyperglycemic and antioxidant [95]	Yes
<i>Chrysanthemum parthenium</i> Bernhadi/Artemisia	Decoction, infusion/Leaves	Calmative [78]	Not found	Not found
<i>Cynara scolymus</i> L./Artichoke	Not found	Calmative [74]	Diuretic [96], prolonged satiety sensation and hypoglycemic [97], antioxidant [98]	Yes
<i>Lactuca sativa</i> L./Lettuce	In nature, infusion/Leaves, root	Calmative, sedative [74, 99]	Antioxidant [100]	Yes
<i>Matricaria chamomilla</i> L./Camomile	Infusion/Leaves	Calmative [56, 75, 78, 101, 102]	Antibacterial and antioxidant [103]	Yes
<i>Mikania hirsutissima</i> DC./Cipó-cabeludo	Not found	Calmative [67, 104]	Antiophidic activity and anti-diarrheal [105]	Yes
<i>Solidago chilensis</i> Meyen/Arnica	Compress/Complete plant	Analgesic [106]	Anti-inflammatory [107]	Yes
<i>Spilanthes oleracea</i> /Anestesiol	Not found	Anesthetic [108]	Peptic antiulcer and contraception [109]	Yes
<i>Tanacetum</i> sp./Macelinha	Decoction/Complete plant	Analgesic [23]	Not found	Not found
<i>Tanacetum vulgare</i> L./Catinga-de-mulata	Decoction, maceration/Leaves	Analgesic [23]	Antibacterial and antifungal [110], antiviral [111], cytotoxic [112], treatment of infections caused by <i>Trypanosoma cruzi</i> and <i>Leishmania amazonensis</i> [113], immunomodulatory [114], antihelminthic [115]	Yes
<i>Vernonia</i> cf. <i>condensata</i> Baker./Boldo do chile	Infusion/Bark	Calmative [57]	Antitumor and anti-inflammatory [116], antioxidant [117]	Yes
Bignoniaceae				
<i>Anemopaegma arvense</i> /Catuaba	Infusion, decoction/Root, bark, leaves	Nervous exhaustion [118]	Increased weight and testicular parenchyma [119], antifungal [120]	Yes
Bombacaceae				
<i>Eriotheca candolleana</i> (K. Schum.)/Catuaba	Infusion/Root	Nervous exhaustion [121]	Not found	Not found
Boraginaceae				
<i>Cordia verbenacea</i> DC./Maria preta	Bathe/Leaves	Analgesic [49]	Antimicrobial [122], anti-inflammatory [123]	No

TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
Brassicaceae				
<i>Coronopus didymus</i> (L.) Smith/Mastruz	Maceration/Leaves	Analgesic [49]	Healing [124], anti-inflammatory [125]	No
Bromeliaceae				
<i>Tillandsia usneoides</i> (L.) L./Barba de velho	Not found	Antiepileptic [49]	Abortion [126], antiviral [127]	Yes
Buddlejaceae				
<i>Buddleja brasiliensis</i> Jacq./Verbasco	Infusion, cataplasm/Part air plant	Calmative [67]	Low potential hemolytic [128]	Yes
Bursaceae				
<i>Commiphora myrrha</i> (T. Nees) Engl/Myrrh	Infusion/Leaves	Calmative [49]	Antioxidant [117], analgesic [129]	Yes
Caesalpinaceae				
<i>Bauhinia forficata</i> Link./Pata de vaca	Decoction/Leaves	Analgesic [23]	Antioxidant and increased liver glycogen [130], antimutagenic [131]	Yes
<i>Bauhinia rutilans</i> Spruce ex. Benth/Escada-de-macaco	Infusion/Part air plant	Analgesic [99]	Not found	Not found
Canellaceae				
<i>Capsicodendron dinissi</i> Occhioni/Pepper	Not found	Migraine [104]	Not found	Not found
Capparaceae				
<i>Cleome spinosa</i> Jacq./Mussambê	Infusion/Complete plant	Headache [132]	Cytotoxic [49], antioxidant [133], anti-inflammatory and antinociceptive [134]	No
Caprifoliaceae				
<i>Sambucus nigra</i> L./Elderberry	Decoction/Leaves	Analgesic [23, 49]	Anti-inflammatory and antioxidant [134], parasitocidal [135]	No
Chenopodiaceae				
<i>Chenopodium ambrosioides</i> L./Yerba Santa Maria	Maceration, infusion/Leaves, bark, seed	Analgesic, calmative [23, 48, 57]	Antitumor [79], hypotensive [136], antipyretic and anxiolytic [137]	Yes
Compositaceae				
<i>Baccharis trimera</i> (Less) D.C./Gorse	Infusion/Leaves	Headache [138]	Antiulcer and antioxidant [139], anti-inflammatory [140], anti-inflammatory and analgesic [141]	No
<i>Vernonia condensata</i> B./Boldo	Infusion, decoction/Leaves	Calmative [138]	Antioxidant [117], analgesic [142]	Yes
Cucurbitaceae				
<i>Cayaponia tayuya</i> (Vell.) Cogn./Taiuia	Infusion, decoction/Root	Neuralgia [67]	Hepatotoxic [142], anti-inflammatory [143]	Yes
Dilleniaceae				
<i>Davilla rugosa</i> Poir./Vine cabloco	Bathe/Root	Sedative [67]	Antioxidant [144], antiulcer [145]	Yes
Euphorbiaceae				
<i>Jatropha curcas</i> L./Pião-bravo	Infusion/Seed	Headache [102, 132]	Acetylcholinesterase inhibitor [146], antibacterial, antioxidant and antitumor [147, 148], cytotoxic [149]	Yes
<i>Ricinus communis</i> L./Castor beans	Infusion/Leaves	Headache [77, 87]	Antimicrobial and anticancer [150], antimicrobial [151]	Yes

TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
Fabaceae				
<i>Caesalpinia ferrea</i> Mart. ex. Tul./Pau ferro	Not found	Analgesic [57]	Nutritional supplementation of iron, zinc and manganese [152] anti-inflammatory and healing [153], antihyperglycemic [154], antimicrobial [155]	No
<i>Cajanus flavus</i> De Candolle/Andu beans	Infusion/Leaves	Headache [99]	Not found	Not found
<i>Erythrina falcata</i> Benth./Surina, mulungu	Not found	Sedative and antiepileptic [67, 104]	Depressant CNS [156]	No
<i>Indigofera anil</i> /Anil	Not found	Sedative [107]	Not found	Not found
<i>Indigofera suffruticosa</i> Mill./Anileira	Decoction, infusion/Complete plant	Sedative [67]	Anti-inflammatory [157], lectin activity [158], antiepileptic [159], antiparasitic [160]	Yes
<i>Pterodon</i> <i>emarginatus</i> /Sucupira	Infusion/leaves, fruit	Headache [120]	Antimicrobial [161–163], analgesic and anti-inflammatory [164]; antileishmanial, anticancer, hypoglycemic [165]	No
Ginkgoaceae				
<i>Ginkgobiloba</i> /Ginco	Decoction, infusion/Leaves	Vasodilator, brain dysfunction, dizziness and concentration and memory [160]	Treatment of Alzheimer disease [166], prevention of dementia [167], antioxidant, vasodilator, stimulant of SNC [168]	No
Geraniaceae				
<i>Pelargonium</i> <i>graveolens</i> L'Her/ Mauve smelling	Not found	Sedative [87]	Anxiolytic and antidepressant [159], antibacterial [169], hypoglycemic and antioxidant [170]	No
<i>Mimosa pudica</i> L./Dormideira	Infusion/Complete plant	Sedative [99]	Reduction of fertility [171], hepatotoxic [172], lipid-lowering [173], anxiolytic and antipyretic [137], antiophidic [174]	No
Iridaceae				
<i>Calydorea</i> sp./Jabotitana	Decoction/Rhizome	Analgesic [23]	Not found	Not found
Labiatae				
<i>Agastache mexicana</i> Kunth/Toronjil	Not found	Sedative [102]	Antihypertensive [175], vasorelaxant [176], anti-inflammatory and antinociceptive [177], antinociceptive [178], anxiolytic [179]	No
<i>Lavandula latifolia</i> /Lavanda	Oil	Stimulant [68]	Anxiolytic [180], antifungal [181], antioxidant [182]	Yes
<i>Origanum vulgare</i> /oregano	Infusion/Leaf	Sedative [68]	Antimicrobial [183] proapoptotic effect and cytotoxic [184], antiurolithic [185]	Yes
Lamiaceae				
<i>Coleus barbatus</i> Benth./Falso-boldo	Tisane mate/Leaf	Headache, calmative [56]	Hepatoprotective [186]	Yes
<i>Cunila microcephala</i> Benth./Hortelã-miúdo, hortelã-pimenta, poejo	Decoction/Complete plant	Analgesic [23, 58]	Anti-inflammatory and antioxidant [187]	No
<i>Hyptis suaveolens</i> Poit./Samba-coité	Tea/Leaf	Headache [188]	Hypoglycemic and antioxidant [189], hepatoprotective and antioxidant [190], gastroprotective activity [191], neuroprotective and antioxidant [192], antifungal [193]	Yes
<i>Lavandula officinalis</i> Chaix & Kitt/Alfazema	Tea/Leaf, stalk	Calmative [49]	Antimicrobial [194], antioxidant [195], sedative and hypnotic [196]	No

TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
<i>Leonotis nepetifolia</i> (L.) R. Br./Cordão de São Francisco	Infusion, decoction/Leaf, branches	Sedative, headache [132, 138]	Antimicrobial [197], anti-inflammatory [198]	Yes
<i>Melissa officinalis</i> L./Erva-cidreira, melissa	Decoction/Leaf	Calmative, migraine, sedative [23, 36, 55, 58, 59, 87, 89, 90, 101, 102, 138, 199]	Anti-inflammatory [200], calmative [201], antioxidant [202], antigenotoxic and antimutagenic [203], neuroprotective [199, 204]	No
<i>Mentha arvensis</i> L./Hortelã-mentol	Tea/Leaf	Headache [188]	Antibacterial [205], antifungal [206], anti-inflammatory and sedative [207], peptic antiulcer [208]	Yes
<i>Mentha cf. suaveolens</i> <i>Ehrh.</i> /Hortelã, hortelã-grande	Decoction, maceration/Leaf	Calmative, Analgesic [23, 199]	Antifungal [209, 210], antioxidant [211], antibacterial [212]	Yes
<i>Mentha piperita</i> L./Hortelã, hortelã-roxo	Decoction/Complete plant	Analgesic [23, 102]	Antifungal [213, 214], antioxidant [211], anthelmintic [215], hypoglycemic and hypolipidemic [216], anticancer [217] analgesic [218]	No
<i>Mentha pulegium</i> L./Poejo	Decoction/Stalk	Calmative, sedative [47, 56, 58, 78]	Antioxidant [211], antimicrobial [219]	Yes
<i>Mentha</i> sp./Hortelã	Decoction/Stalk	Headache, Calmative [36, 47, 49, 55–57]	Anthelmintic [215]	Yes
<i>Mentha spicata</i> L./*	* * *	Headache [87]	Hypoglycemic and hypolipidemic [216], antioxidant [220], antiemetic [221]	Yes
<i>Mentha × villosa</i> Huds./Hortelã	Tea/Leaf	Headache [188]	Antifungal and antibacterial [222], antimicrobial and antioxidant [223], analgesic and antispasmodic [153]	No
<i>Ocimum basilicum</i> L./Alfavaca	Decoction, maceration/Leaf	Calmative, analgesic [23, 39]	Antidepressant and anticonvulsant [224]	Yes
<i>Ocimum gratissimum</i> L./ Louro	Tea/Leaf	Headache, calmative [49, 87, 188]	Anticonvulsant [225, 226], antifungal [227]	Yes
<i>Ocimum minimum</i> L./Manjeriçao	Maceration/Leaf	Headache [94]	Antiulcerogenic and antioxidant [35]	Yes
<i>Ocimum selloi</i> Benth./Alfavaca	Infusion, tea/Leaf	Calmative [138]	Antibacterial [219], analgesic and antidiarrheal [220]	Yes
<i>Origanum majorana</i> L./Manjerona	Decoction/Stalk	Calmative [56]	Antibacterial [228], antioxidant [49], antimetastatic and antitumor [229], antihyperglycemic and antihyperlipidemic [230]	Yes
<i>Plectranthus barbatus</i> Andr./Boldo	Decoction, maceration/Leaf	Analgesic [23, 57, 60]	Cytotoxic [231], acetylcholinesterase inhibitor [232], antimicrobial [233]	Yes
<i>Plectranthus neochilus</i> Schlechter/Boldo do Chile	Infusion/Leaf	Headache [89]	Analgesic [234]	No
<i>Rosmarinus officinalis</i> L./Alecrim	Decoction/Leaf	Analgesic, calmative [23, 39, 48, 58, 59, 102, 138, 235]	Antibacterial [236], antioxidant [237], antifungal [238], anticancer [239], antidepressant [240], analgesic [241], antioxidant, anti-inflammatory, metal chelation [242], prevention and treatment of dementia [243], neuroprotective [244]	No
<i>Salvia lachnostachys</i> Benth./Melissa	Decoction/Leaf	Somniferous [23, 78]	Anti-inflammatory and analgesic [244]	Yes
<i>Salvia lavandulifolia</i> Vahl./Mariselva	Oil/**	Nervous disorders [245]	Hypoglycemic [245], neuroprotective [246]	No
<i>Salvia officinalis</i> L./Salvia, barcelona	Decoction/Leaf	Calmative, Analgesic [23]	Antibacterial [228], anti-inflammatory [247], antidiarrheal and antispasmodic [185], analgesic and anti-inflammatory [248]	No

TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
<b>Lauraceae</b>				
<i>Cinnamomum zeylanicum</i> Breyn./Canela	Infusion, maceration/Stalk	Calmative [39]	Antifungal [249] antimicrobial [250], antioxidant [251], antidiabetic [252]	Yes
<i>Nectandra megapotamica</i> (Spreng.) Mez/Canela-preta	Infusion/leaf	Calmative [253]	Anesthetic [254]	Yes
<b>Leguminosae</b>				
<i>Acosmium subelegans</i> (Mohlenbr) Yakovl/Perobinha do campo	* * *	Sedative, epilepsy and nervous exhaustion [255]	Depressant effect SNC and anticonvulsant [255]	No
<i>Hymenaea courbaril</i> L./Jatobá	Infusion, maceration/Bark, fruit	Sedative [132]	Not found.	Not found
<i>Tamarindus indica</i> /Tamarindo	Compress, bathe, infusion/Stalk, leaves, fruit	Treatment of fever, stomach upset, diarrhea, jaundice and as skin cleansers [256], inflammation, urinary tract infection and laxative [257], headache and stress [258]	Antibacterial [256], antihelminthic [257], antioxidant [259], antinociceptive [260], analgesic and anti-inflammatory [261], antihistaminic and antianaphylactic [262], antiulcer [263]	No
<b>Liliaceae</b>				
<i>Allium sativum</i> L./Alho	* * *	Headache [59]	Hypotensive [264], synergism with antibiotics [265], antioxidant [266]	Yes
<b>Malpighiaceae</b>				
<i>Banisteriopsis caapi</i> /Mariri, ayahuasca	Decoction, infusion/vine	Hallucinogen, emotional and cognitive sensory changes, psychoactive [267–269] aid in treatment of abuse of other Psychoactives [270]	Hallucinogen [271] inhibiting the reuptake of serotonin, in addition to inhibiting MAO [272]	No
<i>Galphimia glauca</i> /Amarilla	Maceration/Part air plants	Calmative [273]	Anxiolytic [273]	No
<b>Meliaceae</b>				
<i>Cedrela fissilis</i> /Cedro-rosa	Infusion/Bark	Headache [121]	Not found	Not found
<b>Moraceae</b>				
<i>Cannabis sativa</i> /maconha, marijuana, cânhamo	Oil, inhalation/Leaves, stalk, flowers	Treatment of pain, nausea and vomiting, multiple sclerosis and other neurological disorders, loss of appetite and eating disorders, Insomnia, anxiety and depression, neuroprotective action [274], antiemetic, appetite stimulant [275], clinical and experimental studies in the treatment of dementias [276], schizophrenia, antipsychotic, anxiety [277], antipsychotic [278]	Treatment of pain, nausea and vomiting, multiple sclerosis and other neurological disorders, loss of appetite and eating disorders, Insomnia, anxiety and depression, neuroprotective action [273], antiemetic, appetite stimulant [274], clinical and experimental studies in the treatment of dementias [275], schizophrenia, antipsychotic, anxiety [276], antipsychotic [277], psychoactive [278]	No
<i>Dorstenia brasiliensis</i> Lam./Carapiá	Cataplasm/Rhizome	Anesthetic [67]	Anti-inflammatory [278]	Yes
<b>Myrtaceae</b>				
<i>Eucalyptus globulus</i> Labill./Eucalipto	Infusion, Bathe/Leaf	Headache [48]	Toxic effect [279], antibacterial [280, 281]	Yes
<i>Eugenia uniflora</i> L./Pitangueira	Decoction/Leaf	Calmative [23, 282]	Antimicrobial and antioxidant [283], anti- <i>Trypanosoma cruzi</i> [206]	Yes



TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
Orchidaceae				
<i>Vanilla planifolia</i> Jack. ex Andrews/Baunilha	* * *	Calmative [67]	Not found	Not found
Oxalidaceae				
<i>Averrhoa Carambola</i> L./Carambola	Infusion/Leaf	Analgesic [99]	Analgesic [284]	No
Papaveraceae				
<i>Papaver somniferum</i> /Planta do ópio	* * *	Analgesic and sedative [68]	Not found	Not found
Passifloraceae				
<i>Passiflora alata</i> Curtis/Maracujá	Fruit	Calmative [55, 59, 77, 90]	Sedative [285]	No
<i>Passiflora caerulea</i> L./Maracujá	Infusion/Part air plant	Sedative and calmative [91, 286]	Anxiolytic [287]	No
<i>Passiflora edulis</i> Sims./Maracujá	Tea/Leaf	Calmative and insomnia [39, 48, 74, 77, 78, 90, 99, 257]	Anxiolytic [288]	No
<i>Passiflora miersii</i> Mart./Maracujazinho	Infusion/Leaf	Calmative and antidepressant [67]	Not found	Not found
Pedaliaceae				
<i>Sesamum orientale</i> L./Gergelim	Seed/Juice	Anticonvulsant [99]	Hypoglycemic [289]	Yes
Phytolaccaceae				
<i>Petiveria alliacea</i> L./Guiné, tira capeta	Decoction/Complete plant	Analgesic [23, 74, 99, 290]	Antimicrobial [291], antinociceptive, sedative, anticonvulsant and depressant [292]	Yes
Piperaceae				
<i>Pothomorphe umbellata</i> Miq./Pariparoba	Infusion/Leaf	Headache [121]	Antioxidant [293], antitumor [294], antihelminthic [295]	Yes
Poaceae				
<i>Cymbopogon citratius</i> Stapf./Capim santo, capim limão	Decoction/Leaf	Calmative, analgesic and sedative [7, 23, 27, 36, 39, 47–49, 55– 58, 74, 77, 78, 88– 90, 99, 101, 102, 138, 296]	Anxiolytic, sedative and anticonvulsant [297]	No
Polygalaceae				
<i>Polygala paniculata</i> L./Arnica	Decoction/Complete plant	Analgesic [23]	Analgesic and antidermatogenic [298], antinociceptive and gastric cytoprotective activity [299]	No
Polygonaceae				
<i>Homalocladium platycladum</i> Bailey/Carquejinha	Decoction/Stalk	Analgesic [23]	Antibacterial [300], analgesic, anti-inflammatory [301]	No
Rosaceae				
<i>Rosa centifolia</i> L./Rosa branca	Decoction/Leaf, flower	Analgesic [23]	Anti-inflammatory and antiarthritic [302], antioxidant [303], antiulcer and cytoprotective [304]	No
<i>Sanguisorba minor</i> Scop./Pimpinela	Tea/Leaf, flower	Calmative [102]	Inhibitory action of acetylcholinesterase [305]	Yes
Rubiaceae				
<i>Coffea arabica</i> L./Café	Cataplasm/Leaf	Headache [101]	Antioxidant [306], antioxidant and stimulant [307]	Yes

TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
<i>Cinchona officinalis</i> L./*	Decoction/Bark	Analgesic [23]	Not found	Not found
<i>Psychotria viridis</i> /chacrona, ayahuasca	Infusion/Leaves	Hallucinogen, emotional and cognitive sensory changes, psychoactive [267–269] aid in treatment of abuse of other Psychoactives [268]	Hallucinogen [308]	
<i>Alibertia</i> sp./Marmelo	Decoction, infusion/Root, fruit	Calmative [118]	Not found	Not found
Rutaceae (5)				
<i>Casimiroa edulis</i> Llave & Lex./Zapote blanco	* * *	Sedative [102]	Vasodilator [309, 310], anticoagulants and antimicrobial [310], anxiolytic [311], anxiolytic and antidepressant [312]	No
<i>Citrus aurantium</i> L./Laranja	Decoction/Bark	Headache and calmative [36, 48, 56, 59, 78, 90, 194]	Low toxicity [313], anxiolytic [314, 315]	Yes
<i>Citrus limon</i> (L.) Burm. f./Limão-galego,	* * *	Calmative and sedative [90, 194]	Neuroprotective activity and anticonvulsant [316]	Yes
<i>Citrus sinensis</i> (L.) Osbeck	Infusion/Leaf	Calmative, analgesic and sedative [23, 27, 49, 74, 99, 138]	Antioxidant, antithyroid and antihyperglycemic [317]	Yes
<i>Ruta graveolens</i> L./Arruda	Decoction, maceration/Leaf	Calmative and headache [23, 39, 48, 57, 60, 102]	Antimicrobial [318], antioxidant [319], antitumor [320], antinociceptive, anti-inflammatory and antipyretic [321]	Yes
Solanaceae				
<i>Atropa belladonna</i> L./Beladona	Decoction/Leaf	Calmative [23]	Healing [322]	Yes
<i>Cestrum sendtnerianum</i> Mart./Guiné-do-campo	Infusion, Decoction/Leaf	Sedative [67]	Not found	Not found
<i>Solanum americanum</i> Mill./Maria-pretinha	Decoction/Leaf, Stalk	Sedative, Analgesic [45, 67]	Antifungal [323], antioxidant and anticancer [324]	Yes
<i>Solanum cernuum</i> Vell./Pata de mono	* * *	Calmative [87]	Antiulcerogenic [325]	Yes
Umbelliferae				
<i>Anethum graveolens</i> /Eneldo	* * *	Sedative [68]	Antifungal [326], anticonvulsant [327], anti <i>Helicobacter pylori</i> [328], decreased fertility rate [329], participates in the regulation of Diabetes Mellitus [330]	Yes
<i>Coriandrum sativum</i> /Cilantro	Infusion/Leaf, fruit	Stimulant [68]	Antioxidant [40], sedative and muscle relaxant [43], antibacterial [331], antiarthritic [332], anti-inflammatory [41], antifungal [333], hypoglycemic and hypolipidemic [334]	Yes
<i>Petroselinum hortense</i> /Salsa da horta	* * *	Sedative [107]	Diuretic and hypotensive [335]	Yes
Urticaceae				
<i>Uretra baccifera</i> (L.)/Urtiga	Leaf	Analgesic [36]	Antioxidant [336], anti-inflammatory [337]	No
Verbenaceae (6)				
<i>Aloysia citrodora</i> Palau/Erva luíza	* * *	Calmative [74, 286]	Not found.	Not found

TABLE 1: Continued.

Family Scientific name/common name	Forms of preparation/used part	Medicinal effects cited by population	Pharmacological tests	Divergences
<i>Aloysia triphylla</i> Royle/Cidrão	**/Leaf	Sedative [55, 235]	Treatment of intestinal disorders [338], anti <i>Trypanosoma Cruzi</i> [339], anti- <i>Helicobacter pylori</i> [328], antibacterial [340], spasmolytic and anti-inflammatory [341], antinociceptive [244]	Yes
<i>Lantana camara</i> L./Camará	Infusion, Decoction/Leaf	Headache [132]	Antibacterial [342], antioxidant [343], anxiolytic [344]	Yes
<i>Lippia alba</i> (Mill.) N.E. Br./Erva-cidreira	Leaf/Infusion	Headache and calmative [39, 49, 55, 58– 61, 75, 77, 94, 97]	Antimicrobial [345], antispasmodic [346], anxiolytic [347], anesthetic [348]	No
<i>Lippia gracilllis</i> Schauer/Alecrim da serra	Infusion/Leaf	Headache [132]	Antimicrobial [349], antitumor [350], anti-inflammatory and healing [351]	Yes
<i>Verbena cf. minutifolia</i> Phil./*	Decoction/Complete plant	Analgesic [23]	Not found	Not found
Violaceae				
<i>Viola odorata</i> L./	* * *	Sedative [87]	Antitumoral [352], antioxidant and antibacterial [353], antimicrobial [354], vasodilator and antidyslipidemic [355]	Yes
Zingiberaceae				
<i>Alpinia zerumbet</i> (Pers.) Burt & Smith/Colônia	Decoction/Leaf	Calmative [39, 48, 49, 101]	Hypotensive [356], vasodilator [357], antioxidant [358]	Yes
<i>Zingiber officinale</i> Rosc./Gengibre	Decoction/root	Analgesic and headache [23, 57, 78]	Antioxidant [359], antihyperglycemic [360], antibacterial [361], androgenic [362]	Yes
<i>Costus brasiliensis</i> Schum./Cana-de-macaco	Not found	Calmative [67]	Not found	Not found

\* It is the popular name that was quoted. \*\* It was not mentioned how to prepare. \*\*\* It is the portion used or how to prepare that was quoted.

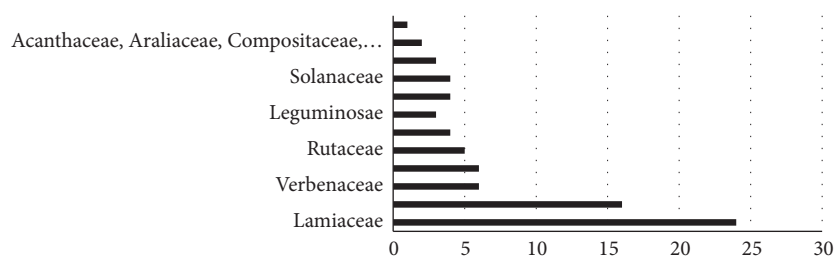


FIGURE 1: The cited families of medicinal plants according to popular knowledge.

parts most commonly used, but, in 18% of the studied plants, there were no citations about the used part for making medicines (Figure 3).

The most common preparation methods provided in the surveys were infusion (59/167) and decoction (49/167), representing 63.7% of all the methods (Figure 4).

Common effects attributed to the plants in the ethnopharmacological surveys were antioxidant (42/401), anti-inflammatory (31/401), antibacterial (20/401), and antimicrobial (17/401), totaling 31.9% (Figure 5).

Comparison between ethnopharmacological data and pharmaceutical tests for the same plants and compounds

found differences in 52.9% (73/138) of the cases and similarities in 30.4% (42/138) (Figure 6). No pharmacological tests were found for 16.9% (23/138) of the plants mentioned in the ethnopharmacological surveys (Table 1).

Table 1 shows a list of the medicinal plants analyzed in this study. The pharmacological effects including “anticonvulsant” and “anxiolytic” were considered to correspond to “calmative” in medicinal effects cited by population since both effects are attributed to the same action in the neural system, that is, inhibitory action. Furthermore, the pharmacological effect “anti-inflammatory” was also considered to correspond to “analgesic” in medicinal effects cited by

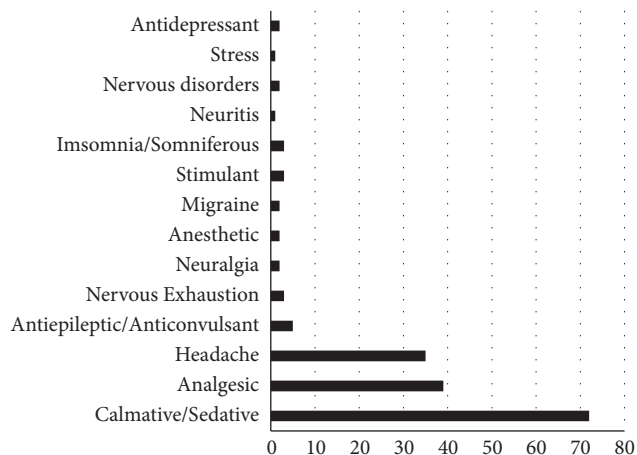


FIGURE 2: The indications for use of the medicinal plants according to popular knowledge.

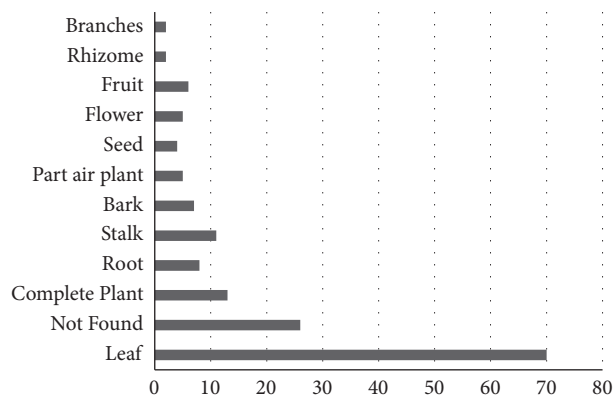


FIGURE 3: Part of plants used for indications according to the popular knowledge.

population since anti-inflammatory agents are effective in treating pain diseases.

#### 4. Discussion

The most frequent indications of medicinal plant use for neural system disorders in our survey (i.e., calmative, analgesic, headache, and insomnia) are associated with the most common occurrences seen in medical practice [7, 36, 47, 55, 68, 77, 104, 132, 235, 258] (Figure 2).

The plant families analyzed (Lamiaceae and Asteraceae) are in accordance with general ethnobotanical studies [4, 7, 379–382] (Figure 1), as well as the most utilized plant parts (leaves) [1, 7, 379, 383, 384], and preparation methods (infusion and decoction) [7, 253, 379, 383, 384] (Figure 4).

Despite that, the frequency of effects observed by most pharmacological tests does not coincide with those reported for the same plants when analyzed by ethnopharmacological means, (i.e., antioxidant, anti-inflammatory, antibacterial, and antimicrobial), demonstrating a high discrepancy between proven and popularly mentioned effects (Figure 6).

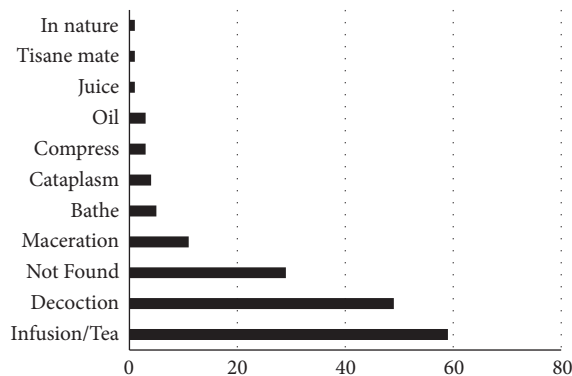


FIGURE 4: Preparation methods cited by population for medicinal plants.

It is important to remember that results of pharmacological tests were not found for all the plants mentioned in the ethnopharmacological studies, although those represent a small minority (16.9%) (Figure 5).

The discrepancy rate between the effects observed by ethnopharmacological and pharmacological methods in this study is in agreement with a previous study [9] and, in both cases, a disagreement of over 50% was found. This data indicates the need for better control in the use of medicinal plants as a whole, especially in countries with a large proportion of economically backward population where such therapy is most common, such as China, India, and Brazil. However, there are possibilities that scientific studies are not enough or they are missing to corroborate the ethnopharmacological activities.

Tables like the one produced in this study can be used as a basis for the indication of medications for health professionals working in the neural area who choose to substitute alternative therapies with conventional methods. The tables can be used to maintain the patient's health and help make these treatments more accessible to people of all economic levels [385], bring medical practice closer to the care of cultural groups [386], and expand the idea of wholeness in healthcare.

Performing pharmacological tests in the medicinal plants mentioned in ethnopharmacological studies will help avoid prescription errors based only on popular knowledge, which, despite the importance, exhibits extensive methodological shortcomings from its propagation through generations (see Introduction). Although the pharmacological tests cannot solve problems related to contamination during preparation and/or mistakes when identifying plants by unskilled people, performing those tests would decrease the problems caused by adverse effects and wrong prescriptions.

Neurological disorders present complex etiologies often with aggravating social influences, requiring special care when making prescriptions; many critically ill patients are secluded from society and require medical monitoring and medications derived from modern pharmaceutical technology since indications for complex etiologies like dementias were not addressed in the ethnopharmacological articles analyzed in this study.

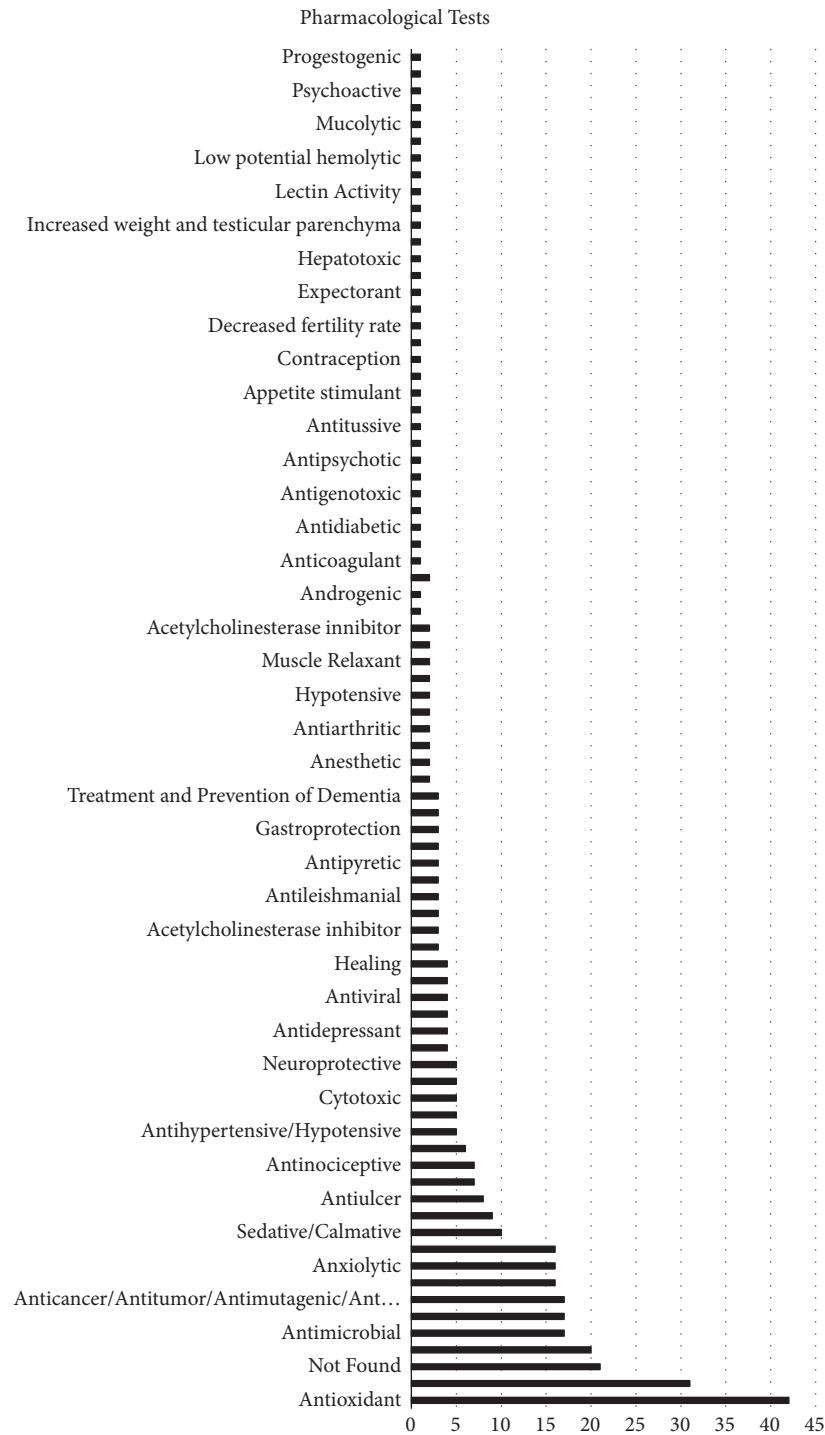


FIGURE 5: Attributed effects of the medicinal plants according to popular knowledge.

In conclusion, despite the importance of ethnopharmacological data, it is important to make comparisons with pharmacological tests for the same plants, since the pharmacological studies, although few, have shown a high rate of discrepancy in the results, nevertheless, to be important to cite that the scientific studies could not be enough, or are missing, to corroborate the ethnopharmacological activities. Tables containing the plants names and their effects

according to pharmacological tests should be consulted by health professionals before prescribing those medications. No medicinal plants were mentioned in ethnopharmacological data for treating complex etiology neural disorders such as dementia, indicating the need for new studies of broader geographical amplitude and pharmaceutical classes all around the world. Emphasis of these studies should occur in developing countries in order to decrease prescription

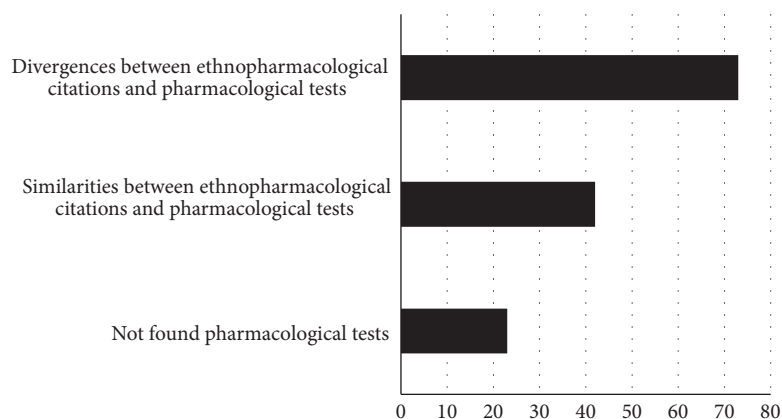


FIGURE 6: Comparison between ethnopharmacological data and pharmaceutical tests for the same plants and compounds.

errors associated with medicinal plants and increase the coverage of plant-based therapy for the global population while prioritizing people in need.

### Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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### References

- [1] T. M. B. Garlet and B. E. Irgang, "Medicinal plants used in folk medicine by rural women workers in Cruz," *Revista Brasileira de Plantas Mediciniais*, vol. 4, no. 1, pp. 9–18, 2001.
- [2] N. F. Grynberg, A. Echevarria, M. A. M. Maciel, A. C. Pinto, and P. V. F. Veiga Junior, "Plantas mediciniais: a necessidade de estudos multidisciplinares," *Química Nova*, vol. 25, no. 3, pp. 429–438, 2002.
- [3] H. A. Rezende and M. I. Cocco, "The phytoterapy utilization in the rural population routine," *Revista da Escola de Enfermagem da USP*, vol. 36, no. 3, pp. 282–288, 2002.
- [4] E. Rodrigues and E. A. Carlini, "Possible effects on the Central Nervous System of plants used by two Brazilian cultures (Maroons and Indians)," *Arquivos Brasileiros de Fitomedicina Científica*, vol. 11, no. 3, pp. 147–154, 2003.
- [5] N. B. Vale, "A farmacobotânica, ainda tem lugar na moderna anestesiologia?" *Revista Brasileira de Anestesiologia*, vol. 52, no. 3, pp. 368–380, 2002.
- [6] I. S. França, J. A. Souza, R. S. Baptista, and V. R. Britto, "Medicina popular: benefícios e malefícios das plantas mediciniais," *Revista Brasileira de Enfermagem*, vol. 61, no. 2, pp. 201–208, 2008.
- [7] N. P. Soares, A. Camilo Neves, T. de Abreu, G. de Abreu Pfrimer, H. Nishijo, and T. A. Aversi-Ferreira, "Medicinal plants used by the population of Goianópolis, Goiás State, Brazil," *Acta Scientiarum - Biological Sciences*, vol. 35, no. 2, pp. 263–271, 2013.
- [8] H. Gómez-Estrada, F. Díaz-Castillo, L. Franco-Ospina et al., "Folk medicine in the northern coast of Colombia: an overview," *Journal of Ethnobiology and Ethnomedicine*, vol. 7, no. 1, pp. 27–37, 2011.
- [9] T. A. Aversi-Ferreira, P. P. Ribeiro, N. C. Silva et al., "Confrontation between ethnopharmacology and scientific results of the herbal medicaments from Brazil to be applied in primary health care," *Journal of Medicinal Plants Research*, vol. 7, no. 4, pp. 845–856, 2013.
- [10] F. Cuassolo, A. Ladio, and C. Ezcurra, "Aspectos de la comercialización y control de calidad de las plantas medicinales más vendidas en una comunidad urbana del no de la Patagonia Argentina," *Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromáticas*, vol. 9, no. 3, pp. 166–176, 2009.
- [11] S. Coulaud-Cunha, R. S. Oliveira, and W. Waissmann, "Sale free *Sorocea bomplandii* Bailon as Espinheira Santa in the city of Rio de Janeiro-RJ," *Revista Brasileira de Farmacognosia*, vol. 14, no. 4, pp. 51–53, 2004.
- [12] D. S. M. Andriolo, L. H. Cunha, A. S. Santana et al., "Investigação da presença de anorexígenos, benzodiazepínicos e antidepressivos em formulações fitoterápicas emagrecedoras," *Revista do Instituto Adolfo Lutz*, vol. 71, no. 1, pp. 148–152, 2012.
- [13] G. S. Miranda, S. R. Souza, M. O. F. Amaro, M. B. Rosa, and C. A. Carvalho, "Avaliação do conhecimento etnofarmacológico da população de Teixeira-MG," *Revista de Ciências Farmacêuticas Básica e Aplicada*, vol. 34, no. 4, pp. 559–563, 2013.
- [14] F. Q. Oliveira and L. A. Gonçalves, "Knowledge on medicinal plants and phythomedicines and potential of toxicity by users from Belo Horizonte, Minas Gerais," *Revista Eletrônica de Farmácia*, vol. 3, no. 2, pp. 36–41, 2006.
- [15] M. I. Tomazzoni, R. R. B. Negrelle, and M. L. Centa, "Popular phytotherapy: the instrumental search as therapy," *Texto e Contexto de Enfermagem*, vol. 15, no. 1, pp. 115–121, 2006.
- [16] K. S. M. Rates, "Promoting the rational use of herbal medicines: an approach to teaching pharmacognosy," *Revista Brasileira de Farmacognosia*, vol. 11, no. 2, pp. 57–69, 2001.
- [17] V. Maioli-Azevedo and V. F. Fonseca-Krueel, "Medicinal and ritual plants sold in street markets of Rio de Janeiro, RJ, Brazil," *Acta Botanica Brasílica*, vol. 27, no. 2, pp. 263–275, 2007.
- [18] M. D. Chaves and T. A. Aversi Ferreira, "Terapia medicamentosa da doença de Alzheimer," *Revista Eletrônica de Farmácia*, vol. 5, no. 1, pp. 1–7, 2008.
- [19] M. I. Silva, A. P. Gondim, I. F. Nunes, and F. C. Sousa, "Utilização de fitoterápicos nas unidades básicas de atenção à saúde da família do município de Maracanaú (CE)," *Revista Brasileira de Farmacognosia*, vol. 6, no. 1, pp. 455–462, 2006.

- [20] P. D. Albertasse, L. D. Thomaz, and M. A. Andrade, "Plantas medicinais e seus usos na comunidade da Barra do Jucu, Vila Velha, ES," *Revista Brasileira de Plantas Medicinais*, vol. 12, no. 3, pp. 250–260, 2010.
- [21] R. R. B. Negrelle and K. R. C. Fornazzari, "Estudo etnobotânico em duas comunidades rurais (Limeira e Ribeirão Grande) de Guaratubá (Paraná, Brasil)," *Revista Brasileira de Plantas Medicinais*, vol. 9, no. 2, pp. 36–54, 2007.
- [22] R. H. Alabashi and M. F. Melzig, "Plectranthus barbatus: a review of phytochemistry, ethnobotanical and pharmacology - part 1," *Planta Medica*, vol. 76, no. 7, pp. 653–661, 2010.
- [23] T. M. Miranda and N. Hanazaki, "Conhecimento e uso de recursos vegetais de restinga por comunidades das ilhas Cardoso (SP) e de Santa Catarina (SC), Brasil," *Acta Botanica Brasílica*, vol. 22, no. 1, pp. 203–215, 2008.
- [24] E. S. Garcia, A. C. P. Gilbert, C. B. V. Corrêa, M. V. S. Cavalheiro, R. R. Santos, and T. Tomasini, "Fitoterápicos," *Campinas: André Tosello*, vol. 17, 1996.
- [25] D. D. Soejarto, "Biodiversity prospecting and benefit-sharing: Perspectives from the field," *Journal of Ethnopharmacology*, vol. 51, no. 1-3, pp. 1–15, 1996.
- [26] S. Y. Ariza, D. C. Rueda, J. Rincón, E. L. Linares, and M. F. Guerrero, "Efectos farmacológicos sobre el sistema nervioso central inducidos por cumarina, aislada de *Hygrophilatytha Leonard*," *Vitae*, vol. 14, no. 2, pp. 51–58, 2007.
- [27] E. A. P. Franco and R. F. M. Barros, "Uso e diversidade de plantas medicinais no Quilombo Olho D'água dos Pires, Esperantina, Piauí," *Revista Brasileira de Plantas Medicinais*, vol. 8, no. 3, pp. 78–88, 2006.
- [28] T. E. Venâncio, "Estudo dos efeitos comportamentais e neuroquímicos do extrato padronizado de *Justicia pectoralis* (chambá) em camundongos," in *Dissertação*, Universidade Federal do Ceará, Faculdade de Medicina, Fortaleza, Brazil, 2009.
- [29] C. S. Lino, M. L. Taveira, G. S. B. Viana, and F. J. A. Matos, "Analgesic and antiinflammatory activities of *Justicia pectoralis* Jacq and its main constituents: Coumarin and umbelliferone," *Phytotherapy Research*, vol. 11, no. 3, pp. 211–215, 1997.
- [30] T. D. Locklear, Y. Huang, J. Frasor et al., "Estrogenic and progestagenic effects of extracts of *Justicia pectoralis* Jacq. an herbal medicine from Costa Rica used for the treatment of Menopause and PMS," *Maturitas*, vol. 66, no. 3, pp. 315–322, 2010.
- [31] G. P. Trueba, R. R. Martínez, Z. P. Ruiz, and J. R. Chanfrau, "Evaluación de la actividad antioxidante de *Justicia Pectoralis*," *Revista cubana de Investigaciones Biomedicas*, vol. 20, no. 1, pp. 30–33, 2001.
- [32] R. C. Dutra, C. Z. Tavares, S. O. Ferraz, O. V. Sousa, and D. S. Pimenta, "Investigação das atividades analgésica e antiinflamatória do extrato metanólico dos rizomas de *Echinodorus grandiflorus*," *Brazilian Journal of Pharmacognosy*, vol. 16, no. 4, pp. 469–474, 2006.
- [33] G. L. C. Cardoso, N. A. Pereira, and R. Lainetti, "Avaliação das atividades antinociceptiva, antiinflamatória e diurética do chapéu-de-couro (*Echinodorus grandiflorus*, [Cham e Schl] Mitch, Alismataceae)," *Revista Brasileira de Farmácia*, vol. 84, no. 1, pp. 5–7, 2003.
- [34] G. F. Conceição, "Efeitos anti-hipertensivos e microcirculatórios do extrato hidro-alcóolico de *Echinodorus grandiflorus* (chapéus-de-couro) em ratos espontaneamente hipertensos," in *Dissertação*, Instituto Oswaldo Cruz, Rio de Janeiro, Brazil, 2011.
- [35] M. A. Lessa, C. V. Araújo, M. A. Kaplan, D. Pimenta, M. R. Figueiredo, and E. Tibiriçá, "Antihypertensive effects of crude extracts from leaves of *Echinodorus grandifolius*," *Fundamental & Clinical Pharmacology*, vol. 22, no. 2, pp. 161–168, 2008.
- [36] M. D. Silva, S. Dreveck, and A. L. B. Zeni, "Estudo etnobotânico de plantas medicinais utilizadas pela população rural no entorno do Parque Nacional da Serra do Itajaí - Indaial," *Revista Saúde e Ambiente*, vol. 10, no. 2, pp. 54–64, 2009.
- [37] C.-H. Wu, H.-T. Hsieh, J.-A. Lin, and G.-C. Yen, "Alternanthera paronychioides protects pancreatic  $\beta$ -cells from glucotoxicity by its antioxidant, antiapoptotic and insulin secretagogue actions," *Food Chemistry*, vol. 139, no. 1-4, pp. 362–370, 2013.
- [38] V.-G. Jorge, J.-R. L. Ángel, T.-S. Adrián et al., "Vasorelaxant activity of extracts obtained from *Apium graveolens*: Possible source for vasorelaxant molecules isolation with potential antihypertensive effect," *Asian Pacific Journal of Tropical Biomedicine*, vol. 3, no. 10, pp. 776–779, 2013.
- [39] V. P. Mosca and M. I. B. Loiola, "Uso popular de plantas medicinais no rio grande do norte, nordeste do Brasil," *Revista Caatinga*, vol. 22, no. 4, pp. 225–234, 2009.
- [40] E. d. Melo, J. Mancini Filho, N. B. Guerra, and G. R. Maciel, "Atividade antioxidante de extratos de coentro (*Coriandrum sativum* L.)," *Ciência e Tecnologia de Alimentos*, vol. 23, no. 1, pp. 195–199, 2003.
- [41] G. Zanusso-Junior, J. Melo, A. Romero et al., "Avaliação da atividade antiinflamatória do coentro (*Coriandrum sativum* L.) em roedores," *Revista Brasileira de Plantas Medicinais*, vol. 13, no. 1, pp. 17–23, 2011.
- [42] V. Z. Pedrosa, "Atividade do *Coriandrum sativum* L. sobre cepas de *Echerichia coli* produtoras de B- lactamases de espectro estendido," in *Tese*, Centro de Ciências de Saúde, Universidade Federal da Paraíba, 2014.
- [43] M. Emamghoreishi, M. Khasaki, and M. F. Aazam, "Coriandrum sativum: Evaluation of its anxiolytic effect in the elevated plus-maze," *Journal of Ethnopharmacology*, vol. 96, no. 3, pp. 365–370, 2005.
- [44] I. A. Freires, R. M. Murata, V. F. Furlletti et al., "Coriandrum sativum L. (Coriander) essential oil: antifungal activity and mode of action on *Candida* spp., and molecular targets affected in human whole-genome expression," *PLoS ONE*, vol. 9, no. 3, pp. 1–13, 2014.
- [45] S. Sreelatha and R. Inbavalli, "Antioxidant, antihyperglycemic and antihyperlipidemic effects of *Coriandrum sativum* Leaf and stem in alloxan-induced biabetic rats," *Journal of Food Science*, vol. 77, no. 7, pp. 119–123, 2012.
- [46] A. A. Taherian, A. A. Vafaei, and J. Ameri, "Opiate system mediate the atinocceptive effects of *Coriandrum sativum* in mice," *Iranian Journal of Pharmaceutical Research*, vol. 11, no. 2, pp. 679–688, 2012.
- [47] W. Barrella, T. B. Breier, and G. A. Leme, "Levantamento etnobotânico do uso popular de plantas medicinais por comunidade rurais atendidas pela UBSF/Jundiaquara/ Araçoiaba da Serra/ SP," *Revista Eletrônica de Biologia*, vol. 3, no. 4, pp. 89–105, 2010.
- [48] M. A. A. Soares, J. R. P. Braga, A. E. B. Mourão, K. M. S. Parente, and E. G. Parente, "Levantamento etnobotânico das plantas medicinais utilizadas pela população do município de Gurinhém- Paraíba," *Revista Homem, Espaço e Tempo*, vol. 3, no. 2, pp. 36–47, 2009.
- [49] W. A. Silva, N. C. A. Fagundes, C. A. Coutinho, A. C. M. Soares, P. V. Campos, and L. S. Figueiredo, "Levantamento

- etnobotânico de plantas medicinais na cidade de São João da Ponte-MG,” *Revista de Biologia e Farmácia*, vol. 7, no. 1, pp. 122–131, 2012.
- [50] V. N. Trajano, E. d. Lima, E. L. Souza, and A. E. Travassos, “Propriedade antibacteriana de óleos essenciais de especiarias sobre bactérias contaminantes de alimentos,” *Ciência e Tecnologia de Alimentos*, vol. 29, no. 3, pp. 542–545, 2009.
- [51] F. Karimzadeh, M. Hosseini, D. Mangeng et al., “Anticonvulsant and neuroprotective effects of *Pimpinella anisum* in rat brain,” *BMC Complementary and Alternative Medicine*, vol. 12, no. 76, pp. 1–10, 2012.
- [52] J.-B. Lee, C. Yamagishi, K. Hayashi, and T. Hayashi, “Antiviral and immunostimulating effects of lignin-carbohydrate-protein complexes from *Pimpinella anisum*,” *Bioscience, Biotechnology, and Biochemistry*, vol. 75, no. 3, pp. 459–465, 2011.
- [53] I. Gülçin, M. Oktay, E. Kireççi, and Ö. I. Küfrevioğlu, “Screening of antioxidant and antimicrobial activities of anise (*Pimpinella anisum* L.) seed extracts,” *Food Chemistry*, vol. 83, no. 3, pp. 371–382, 2003.
- [54] S. Kadan, M. Rayan, and A. Rayan, “Anticancer activity of anise (*Pimpinella anisum* L.) seed extract,” *The Open Nutraceuticals Journal*, vol. 6, no. 1, pp. 1–5, 2013.
- [55] A. H. C. Merétika, N. Peroni, and N. Hanazaki, “Local knowledge of medicinal plants in three artisanal fishing communities (Itapoá, Southern Brazil), according to gender, age, and urbanization,” *Acta Botanica Brasilica*, vol. 24, no. 2, pp. 386–394, 2010.
- [56] C. T. A. Cruz-Silva, A. P. Pelinson, and A. M. Campelo, “Abordagem etnobotânica acerca do uso de plantas medicinais na região urbana no município de Quedas do Iguaçu - Paraná,” *Cultivando o Saber*, vol. 2, no. 1, pp. 14–25, 2009.
- [57] M. A. Pilla, M. C. Amorozo, and A. Furlan, “Obtenção e uso das plantas medicinais no distrito de Martim Francisco, Município de Mogi-Mirim, SP, Brasil,” *Acta Botanica Brasilica*, vol. 20, no. 4, pp. 789–802, 2006.
- [58] S. B. Fuck, J. C. Athanázio, C. B. Lima, and L. C. Ming, “Plantas medicinais utilizadas na medicina popular por moradores da área urbana de Bandeirantes, PR, Brasil,” *Semina: Ciências Agrárias*, vol. 26, no. 3, pp. 291–296, 2005.
- [59] N. F. L. Almeida, S. R. S. Silva, J. M. Souza, A. P. N. Queiroz, G. S. Miranda, and H. B. Oliveira, “Levantamento etnobotânico de plantas medicinais na cidade de Viçosa-MG,” *Revista Brasileira de Ciências Farmacêuticas*, vol. 90, no. 4, pp. 316–320, 2009.
- [60] A. G. Martins, D. L. Rosário, M. N. Barros, and M. A. G. Jardim, “Levantamento etnobotânico de plantas medicinais, alimentares e tóxicas da Ilha do Combu, Município de Belém, Estado do Pará, Brasil,” *Revista Brasileira de Farmácia*, vol. 26, no. 1, pp. 21–30, 2005.
- [61] M. T. Tinoco, M. R. Martins, and J. Cruzmorais, “Atividade antimicrobiana do óleo essencial do *Foeniculum vulgare* Miller,” *Revista de Ciências Agrárias*, vol. 30, no. 1, pp. 448–454, 2013.
- [62] D. Beaux, J. Fleurentin, and F. Mortier, “Diuretic action of hydroalcohol extracts of *Foeniculum vulgare* var dulce (D.C.) roots in rats,” *Phytotherapy Research*, vol. 11, no. 4, pp. 320–322, 1997.
- [63] K. A. L. Wakabayashi, N. I. De Melo, D. P. Aguiar et al., “Anthelmintic effects of the essential oil of fennel (*Foeniculum vulgare*, Apiaceae) against *Schistosoma mansoni*,” *Chemistry & Biodiversity*, vol. 12, no. 7, pp. 1105–1114, 2015.
- [64] E. Mansouri, W. Kooti, M. Bazvand et al., “The effect of hydroalcoholic extract of *Foeniculum vulgare* mill on leukocytes and hematological tests in male rats,” *Jundishapur Journal of Natural Pharmaceutical Products*, vol. 10, no. 1, pp. 1–5, 2015.
- [65] M. Mesfin, K. Asres, and W. Shibeshi, “Evaluation of anxiolytic activity of the essential oil of the aerial part of *Foeniculum vulgare* Miller in mice,” *BMC Complementary and Alternative Medicine*, vol. 14, no. 310, pp. 1–7, 2014.
- [66] S. C. Gnoatto, V. L. Bassani, G. C. Coelho, and E. P. Schenkel, “Influência do método de extração nos teores de metilxantinas em erva-mate (*Ilex paraguariensis* St. - Hil., aquifoliaceae),” *Química Nova*, vol. 30, no. 2, pp. 304–307, 2007.
- [67] V. E. G. Rodrigues and D. A. Carvalho, “Levantamento etnobotânico de plantas medicinais no domínio do cerrado na região do Alto Rio Grande- Minas Gerais,” *Ciência e Agrotecnologia*, vol. 25, no. 1, pp. 102–123, 2001.
- [68] A. C. Ortiz and M. C. M. Lombardo, “Cultivo de plantas medicinales en la provincia de Jaén,” *Boletín Instituto de Estudios Giennenses*, vol. 2, no. 200, pp. 195–230, 2009.
- [69] F. B. Mello and J. R. B. Mello, “Avaliação dos Efeitos Anti-tussígenos e Expectorantes de Duas Formulações Fitoterápicas Existentes no Mercado Brasileiro,” *Acta Farmaceutica Bonorrence*, vol. 25, no. 1, pp. 64–70, 2006.
- [70] B. Kiertzman and S. L. Zuquim, “O extrato seco de *Hedera helix* no tratamento das infecções de vias aéreas na infância,” *Pediatria Moderna*, vol. 44, no. 4, pp. 143–149, 2008.
- [71] A. Rai, “The antiinflammatory and antiarthritic properties of ethanol extract of *hedera helix*,” *Indian Journal of Pharmaceutical Sciences*, vol. 75, no. 1, pp. 99–102, 2013.
- [72] G. I. I. Rodriguez, “Avaliação da Atividade antiofídica de *Aristolochia sprucei*: Isolamento e caracterização estrutural de composto bioativo,” *Dissertação*, Ciências Farmacêuticas de Ribeirão Preto, USP, 2010.
- [73] G. A. Pacheco, “Estudo fitoquímico de *Aristolochia esperanzae* Kuntze (*Aristolochia*),” in *Dissertação*, Departamento de Química do Instituto de Ciências Exatas da Universidade Federal de Minas, 2009.
- [74] M. R. Ritter, G. R. Sobierajski, E. P. Schenkel, and L. A. Mentz, “Plantas usadas como medicinais no município de Ipê, RS, Brasil,” *Revista Brasileira de Farmacognosia*, vol. 12, no. 2, pp. 51–62, 2002.
- [75] M. J. M. Sousa, F. F. Moral, G. N. L. Nascimento, N. P. Soares, and T. A. Aversi-Ferreira, “Medicinal plants used by Itamaraty community nearby Anápolis, Goiás State, Brazil,” *Acta Scientiarum - Health Sciences*, vol. 2, no. 32, pp. 177–184, 2010.
- [76] F. Lopes, M. Placeres, R. Moreira, L. d. Santos, and I. Carlos, “Avaliação da atividade imunológica *Achillea millefolium* L. (‘mil-folhas’),” *Revista Brasileira de Farmacognosia*, vol. 13, no. 2, pp. 11–13, 2003.
- [77] M. R. Brito and L. d. Senna-Valle, “Plantas medicinais utilizadas na comunidade caiçara da Praia do Sono, Paraty, Rio de Janeiro, Brasil,” *Acta Botanica Brasilica*, vol. 25, no. 2, pp. 363–372, 2011.
- [78] A. M. Borba and M. Macedo, “Plantas medicinais usadas para a saúde bucal pela comunidade do bairro Santa Cruz, Chapada dos Guimarães, MT, Brasil,” *Acta Botanica Brasilica*, vol. 20, no. 4, pp. 771–782, 2006.
- [79] M. J. Ruffa, G. Ferraro, M. L. Wagner, M. L. Calcagno, R. H. Campos, and L. Cavallaro, “Cytotoxic effect of Argentine medicinal plant extracts on human hepatocellular carcinoma cell line,” *Journal of Ethnopharmacology*, vol. 79, no. 3, pp. 335–339, 2002.
- [80] A. L. Oliveira, C. D. Padilha, G. G. Ortega, and P. R. Pretrovick, *Achyrocline satureioides* (Lam.) DC., Asteraceae: comparative



- evaluation of the vegetal drug and preliminary optimization studies on extraction*. *Caderno de Farmácia*, vol. 17, comparative evaluation of the vegetal drug and preliminary optimization studies on extraction. *Caderno de Farmácia*, Asteraceae, 2001.
- [81] R. P. J. M. Bettega, "Avaliação da atividade antiviral de extratos nebulizados de *Achyrocline satureioides* (Lam) D C. Asteraceae - Marcela," in *Dissertação*, Universidade Federal de Santa Catarina, Florianópolis, Brazil, 2000.
- [82] J. J. Ochoa, A. H. Ladio, and M. Lozada, "Uso de recursos herbolarios entre mapuches y criollos de la comunidad campesina Arroyo Las Minas (Río Negro, Argentina)," *Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromáticas*, vol. 9, no. 4, pp. 269–276, 2010.
- [83] G. Shafi, T. N. Hasan, N. A. Syed et al., "Artemisia absinthium (AA): A novel potential complementary and alternative medicine for breast cancer," *Molecular Biology Reports*, vol. 39, no. 7, pp. 7373–7379, 2012.
- [84] D. Obistioiu, R. T. Cristina, I. Schmerold et al., "Chemical characterization by GC-MS and in vitro activity against *Candida albicans* of volatile fractions prepared from *Artemisia dracuncululus*, *Artemisia abrotanum*, *Artemisia absinthium* and *Artemisia vulgaris*," *Chemistry Central Journal*, vol. 8, no. 6, pp. 1–11, 2014.
- [85] H. R. Moslemi, H. Hoseinzadeh, M. A. Badouei, K. Kafshdouzan, and R. M. N. Fard, "Antimicrobial activity of *Artemisia absinthium* against surgical wounds infected by *Staphylococcus aureus* in a rat model," *Indian Journal of Microbiology*, vol. 52, no. 4, pp. 601–604, 2012.
- [86] Y. Tariku, A. Hymete, A. Hailu, and J. Rohloff, "In vitro evaluation of antileishmanial activity and toxicity of essential oils of *Artemisia absinthium* and *Echinops kebericho*," *Chemistry & Biodiversity*, vol. 8, no. 4, pp. 614–623, 2011.
- [87] D. C. Gallotte and L. F. Ribeiro, "Levantamento etnobotânico das plantas medicinais do horto da Escola Superior São Francisco de Assis - ESFA, Santa Teresa, ES," *Natureza Online*, vol. 3, no. 1, pp. 19–24, 2005.
- [88] V. F. S. Brito, I. C. Dantas, and G. D. S. Dantas, "Plantas medicinais utilizadas pela comissão de mulheres na zona rural no município de Lagoa Seca - PB," *Revista de Biologia e Farmácia*, vol. 3, no. 1, pp. 112–123, 2009.
- [89] A. K. M. Oliveira, N. A. Oliveira, U. M. Resende, and P. F. R. B. Martins, "Ethnobotany and traditional medicine of the inhabitants of the Pantanal Negro sub-region and the raizeiros of Miranda and Aquidauna, Mato Grosso do Sul, Brazil," *Brazilian Journal of Biology*, vol. 71, no. 1, pp. 283–289, 2011.
- [90] M. Giraldi and N. Hanazaki, "Uso e conhecimento tradicional de plantas medicinais no Sertão do Ribeirão, Florianópolis, SC, Brasil," *Acta Botanica Brasílica*, vol. 24, no. 2, pp. 395–406, 2010.
- [91] M. P. Hernández, S. M. Civitella, and V. G. Rosato, "Uso medicinal popular de plantas y líquenes de la Isla Paulino, Provincia de Buenos Aires, Argentina," *Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromáticas*, vol. 9, no. 4, pp. 258–268, 2010.
- [92] C. Wehba, F. Fernandes, and E. Oppi, "Aplicação de pomada a base de extrato de camomila como coadjuvante na redução da sintomatologia dolorosa das lesões ulceradas da mucosa oral," *Revista Brasileira de Medicina*, vol. 65, no. 5, pp. 129–132, 2008.
- [93] L. L. Cogo, C. L. B. Monteiro, M. D. Miguel et al., "Anti-*Helicobacter pylori* activity of plant extracts traditionally used for the treatment of gastrointestinal disorders," *Brazilian Journal of Microbiology*, vol. 41, no. 2, pp. 304–309, 2010.
- [94] F. H. Al-Hashem, "Gastroprotective effects of aqueous extract of chamomilla recutita against ethanol-induced gastric ulcers," *Saudi Medical Journal*, vol. 31, no. 11, pp. 1211–1216, 2010.
- [95] M. Cemek, S. Kağa, N. Şimşek, M. E. Büyükkokuroğlu, and M. Konuk, "Antihyperglycemic and antioxidative potential of *Matricaria chamomilla* L. in streptozotocin-induced diabetic rats," *Journal of Natural Medicines*, vol. 62, no. 3, pp. 284–293, 2006.
- [96] V. F. Noldin, V. Cechinel Filho, F. D. Monache et al., "Composição química e atividades biológicas das folhas de *Cynara scolymus* L. (alcachofra) cultivada no Brasil," *Química Nova*, vol. 26, no. 3, pp. 331–334, 2003.
- [97] A. Zaru, P. MacCioni, A. Riva et al., "Reducing effect of a combination of *Phaseolus vulgaris* and *Cynara scolymus* extracts on operant self-administration of a chocolate-flavoured beverage in rats," *Phytotherapy Research*, vol. 27, no. 6, pp. 944–947, 2013.
- [98] R. Gebhardt, "Antioxidative and protective properties of extracts from leaves of the artichoke (*Cynara scolymus* C.) against hydroperoxide-induced oxidative stress in cultured rat hepatocytes," *Toxicology and Applied Pharmacology*, vol. 144, no. 2, pp. 279–286, 1997.
- [99] F. J. Luz, "Plantas medicinais de uso popular em Boa Vista, Roraima, Brasil," *Horticultura Brasileira*, vol. 19, no. 1, pp. 88–96, 2001.
- [100] S. N. Harsha, K. R. Anilakumar, and M. V. Mithila, "Antioxidant properties of *Lactuca sativa* leaf extract involved in the protection of biomolecules," *Biomedicine & Preventive Nutrition*, vol. 3, no. 4, pp. 367–373, 2013.
- [101] M. F. Medeiros, V. S. Fonseca, and R. H. Andreato, "Plantas medicinais e seus usos pelos sítiantes da Reserva do Rio das Pedras, Mangaratiba, RJ, Brasil," *Acta Botanica Brasílica*, vol. 18, no. 2, pp. 391–399, 2004.
- [102] I. M. Madaleno, "Etnofarmacología en Iberoamérica, una alternativa a la globalización de las prácticas de cura," *Cuadernos Geográficos*, vol. 41, no. 2, pp. 61–95, 2008.
- [103] P. Owlia, I. Rasooli, and H. Sadari, "Antistreptococcal and antioxidant activity of essential oil from *Matricaria chamomilla* L.," *Research Journal of Biological Sciences*, vol. 2, no. 2, pp. 155–160, 2007.
- [104] C. V. E. e. A. Rodrigues and D. Carvalho, "Florística de plantas medicinais nativas de remanescentes de floresta estacional semidecidual na região de Alto do Rio Grande - Minas Gerais," *Revista Cerne*, vol. 15, no. 3, pp. 93–112, 2005.
- [105] H. R. N. Salgado, A. F. F. Roncari, and R. R. D. Moreira, "Antidiarrhoeal effects of *Mikania glomerata* Spreng. (Asteraceae) leaf extract in mice," *Revista Brasileira de Farmacognosia*, vol. 15, no. 3, pp. 205–208, 2005.
- [106] F. Assini, E. Fabrício, and K. Lang, "Efeitos farmacológicos do extrato aquoso de *Solidago chilensis* Meyen em camundongos," *Revista Brasileira de Plantas Medicináveis*, vol. 15, no. 1, pp. 130–134, 2013.
- [107] F. G. C. Costa, F. G. C. C. Nunes, and V. Peres, "Mapeamento etnofarmacológico e etnobotânico de espécies de cerrado, na microregião de Patos de Minas," *Revista do Núcleo Interdisciplinar de Pesquisa e Extensão*, vol. 2, no. 7, pp. 93–111, 2010.
- [108] M. A. Nascimento, "Polissacarídeos e metabólitos secundários de *Spilanthes oleracea* L. (Jambu)," in *Dissertação*, Departamento de Bioquímica e Biologia Molecular, Setor de Ciências Biológicas., Universidade Federal do Paraná, 2012.
- [109] G. Pessini, F. Holetz, N. Sanches, D. Cortez, B. Dias Filho, and C. Nakamura, "Avaliação da atividade antibacteriana e antifúngica

- de extratos de plantas utilizados na medicina popular," *Revista Brasileira de Farmacognosia*, vol. 13, no. 1, pp. 21–24, 2003.
- [110] Á. L. Álvarez, S. Habtemariam, M. Juan-Badaturuge, C. Jackson, and F. Parra, "In vitro anti HSV-1 and HSV-2 activity of *Tanacetum vulgare* extracts and isolated compounds: an approach to their mechanism of action," *Phytotherapy Research*, vol. 25, no. 2, pp. 296–301, 2011.
- [111] S. Rosselli, M. Bruno, F. M. Raimondo et al., "Cytotoxic effect of eudesmanolides isolated from flowers of *Tanacetum vulgare* ssp. *Siculum*," *Molecules*, vol. 17, no. 7, pp. 8186–8195, 2012.
- [112] P. S. Luize, T. S. Tiuman, L. G. Morello et al., "Effects of medicinal plant extracts on growth of *Leishmania (L.) amazonensis* and *Trypanosoma cruzi*," *Brazilian Journal of Pharmaceutical Sciences*, vol. 41, no. 1, pp. 85–94, 2005.
- [113] G. Xie, I. A. Schepetkin, and M. T. Quinn, "Immunomodulatory activity of acidic polysaccharides isolated from *Tanacetum vulgare* L.," *International Immunopharmacology*, vol. 7, no. 13, pp. 1639–1650, 2007.
- [114] L. S. Godinho, L. S. A. de Carvalho, C. C. B. de Castro et al., "Anthelmintic activity of crude extract and essential oil of *Tanacetum vulgare* (Asteraceae) against adult worms of *Schistosoma mansoni*," *The Scientific World Journal*, vol. 2014, Article ID 460342, 10 pages, 2014.
- [115] T. Pagno, L. Z. Blind, M. W. Biavatti, and M. R. O. Kreuger, "Cytotoxic activity of the dichloromethane fraction of the *Vernonia scropioides* (Lam.) Pers. (Asteraceae) against Ehrlich's tumor cells in mice," *Brazilian Journal of Medical and Biological Research*, vol. 39, no. 11, pp. 1483–1491, 2006.
- [116] C. E. Silva, R. Valota, K. S. Gebara, R. C. Silva, and E. Simonatto, "Avaliação da atividade antioxidante e o teor de compostos fenólicos em extrato metanólico obtido de folhas da *Commiphora Myrrha*," *Semina: Ciências Exatas e Tecnológicas*, vol. 34, no. 1, pp. 117–124, 2013.
- [117] G. Vila Verde, J. Paula, and D. Caneiro, "Levantamento etnobotânico das plantas medicinais do cerrado utilizadas pela população de Mossâmedes (GO)," *Revista Brasileira de Farmacognosia*, vol. 13, no. 1, pp. 64–66, 2003.
- [118] C. L. Chieriegatto, "Efeito do tratamento crônico com extratos de *Heteropterys afrodisiaca* O. Mach. E *Anamopaegma arvense* (Vell). Stellf. no testículo de ratos wistar adultos," in *Dissertação*, Universidade Federal de Viçosa, 2005.
- [119] C. D. G. Costanzo, V. C. Fernandes, S. Zingaretti et al., "Isolation of flavonoids from *Anemopaegma arvense* (Vell) Stellf. ex de Souza and their antifungal activity against *Trichophyton rubrum*," *Brazilian Journal of Pharmaceutical Sciences*, vol. 49, no. 3, pp. 559–565, 2013.
- [120] N. R. Bueno, R. O. Castilho, R. B. da Costa et al., "Medicinal plants used by the kaiowá and guarani indigenous populations in the caarapó reserve, Mato Grosso do Sul, Brazil," *Acta Botanica Brasílica*, vol. 19, no. 1, pp. 39–44, 2005.
- [121] L. d. Pinho, P. N. Souza, E. Macedo Sobrinho, A. C. Almeida, and E. R. Martins, "Atividade antimicrobiana de extratos hidroalcoólicos das folhas de alecrim-pimenta, aroeira, barbatimão, erva baleeira e do farelo da casca de pequi," *Ciência Rural*, vol. 42, no. 2, pp. 326–331, 2011.
- [122] S. P. Pimentel, G. E. Barrella, R. C. V. Casarin et al., "Protective effect of topical *Cordia verbenacea* in a rat periodontitis model: immune-inflammatory, antibacterial and morphometric assays," *BMC Complementary and Alternative Medicine*, vol. 12, no. 224, pp. 1–8, 2012.
- [123] A. C. Nitz, J. B. Ely, A. J. D'Acampora, D. R. Tames, and B. P. Corrêa, "Estudo morfométrico no processo de cicatrização de feridas cutâneas em ratos, usando: *Coronopus didymus* e *Calendula officinalis*," *Arquivos Catarinenses de Medicina*, vol. 35, no. 4, pp. 74–79, 2006.
- [124] T. C. P. M. Busnardo, C. Padoani, T. C. Mora et al., "Anti-inflammatory evaluation of *Coronopus didymus* in the pleurisy and paw edema models in mice," *Journal of Ethnopharmacology*, vol. 128, no. 2, pp. 519–525, 2010.
- [125] S. N. Fracaro, T. Nakashima, and I. Deconto, "Potencial abortivo de *Tillandsia usneoides* L. (barba-de-pau) em coelhas gestantes- Nota prévia," *Arquivos de ciências veterinárias e zoologia da UNIPAR*, vol. 7, no. 2, pp. 181–185, 2014.
- [126] C. R. Andrighetti-Fröhner, T. C. M. Sincero, A. C. Da Silva et al., "Antiviral evaluation of plants from Brazilian Atlantic Tropical Forest," *Fitoterapia*, vol. 76, no. 3-4, pp. 374–378, 2005.
- [127] D. M. S. Oliveira, F. M. M. Ocampos, T. F. Moreira et al., "Physico-Chemical assays, hemolytic, and antimicrobial activity of extracts and fractions of *Buddleja stachyoides* Cham and Schltdl. (Schrophulariaceae)," *Visão Acadêmica*, vol. 14, no. 3, pp. 14–25, 2013.
- [128] S. Su, T. Wang, J. Duan et al., "Anti-inflammatory and analgesic activity of different extracts of *Chomiphora myrrha*," *Journal of Ethnopharmacology*, vol. 134, no. 2, pp. 251–258, 2011.
- [129] D. C. Damasceno, G. T. Volpato, I. de Mattos Paranhos Calderon, R. Aguilar, and M. V. C. Rudge, "Effect of *Bauhinia forficata* extract in diabetic pregnant rats: Maternal repercussions," *Phytomedicine*, vol. 11, no. 2-3, pp. 196–201, 2004.
- [130] E. Düsman, I. V. D. Almeida, A. C. Coelho, T. J. Balbi, L. T. Düsman Tonin, and V. E. P. Vicentini, "Antimutagenic effect of medicinal plants *achillea millefolium* and *bauhinia forficata* in vivo," *Evidence-Based Complementary and Alternative Medicine*, vol. 2013, Article ID 893050, 6 pages, 2013.
- [131] M. G. V. Marinho, C. C. Silva, and L. H. C. Andrade, "Levantamento etnobotânico de plantas medicinais em áreas de caatinga no município de São José de Espinharas, Paraíba, Brasil," *Revista Brasileira de Plantas Medicinais*, vol. 13, no. 2, pp. 170–180, 2011.
- [132] S. R. Leal, "Estudo etnofarmacológico e fitoquímico espécies medicinais *Cleome spinosa* Jacq, *Pavonia varians* Moric e *Croton cajucara* Benth," in *Tese*, Universidade Federal do Rio Grande do Norte, Centro de Ciências exatas e da terra, 2008.
- [133] N. Albarello, C. Simões-Gurgel, T. C. Castro et al., "Anti-inflammatory and antinociceptive activity of fieldgrowth plants and tissue culture of *Cleome Spinosa* (Jacq.) in mice," *Journal of Medicinal Plants Research*.
- [134] M. Scopel, "Análise botânica, química e biológica comparativa entre flores das espécies *Sambuncus nigra* L. e *Sambuncus australis* Chan e Schltdl. avaliação preliminar de sua estabilidade," in *Dissertação*, Faculdade de Farmácia, Programa de Pós Graduação em Ciências Farmacêuticas, 2005.
- [135] A. Daryani, M. A. Ebrahimzadeh, M. Sharif et al., "Antitoxoplasma activities of methanolic extract of *sambucus nigra* (caprifoliaceae) fruits and leaves," *Revista de Biologia Tropical*, vol. 63, no. 1, pp. 7–12, 2015.
- [136] E. N. Bum, S. Soudi, E. R. Ayissi et al., "Anxiolytic activity evaluation of four medicinal plants from Cameroon," *African Journal of Traditional, Complementary and Alternative Medicines*, vol. 8, no. 5, pp. 130–139, 2011.
- [137] L. F. Dias, E. S. Melo, L. S. Hernandez, and E. M. Bacchi, "Atividades antiúlcera e antioxidante *Baccharis trimera* (Less) DC (Asteraceae)," *Revista Brasileira de Farmacognosia*, vol. 19, no. 1, pp. 309–314, 2009.
- [138] R. A. Lima, S. A. Magalhães, and M. R. A. Santos, "Levantamento etnobotânico de plantas medicinais utilizadas na cidade

- de Vilhena, Rondônia,” *Revista Pesquisa e Criação*, vol. 10, no. 2, pp. 112–123, 2011.
- [139] E. L. Paul, A. Lunardelli, E. Caberlon et al., “Anti-inflammatory and immunomodulatory effects of *Bacharis trimera* aqueous extract on induced pleurisy in rats and lymphoproliferation In Vitro,” *Inflammation*, vol. 32, no. 6, pp. 419–425, 2009.
- [140] R. M. Gené, C. Cartañá, T. Adzet, E. Marín, T. Parella, and S. Cañigüeral, “Anti-inflammatory and analgesic activity of *Bacharis trimera*: identification of its active constituents,” *Planta Medica*, vol. 62, no. 3, pp. 232–235, 1996.
- [141] A. L. Valverde, G. L. C. Cardoso, N. A. Pereira, A. J. R. Silva, and R. M. Kuster, “Analgesic and antiinflammatory activities of vernonioside B2 from *Vernonia condensata*,” *Phytotherapy Research*, vol. 15, no. 3, pp. 263–264, 2001.
- [142] A. G. U. Batista, R. A. Lopes, M. A. Souza et al., “Hepatotoxicidade de plantas medicinais. XLIX. Ação da infusão de *Cayaponia tayuya* (Vell.) Cong. no camundongo,” *Investigação – Revista Científica da Universidade de Franca*, vol. 6, no. 1, pp. 7–12, 2006.
- [143] S. Aquila, R. M. Giner, M. C. Recio, E. D. Spegazzini, and J. L. Rios, “Anti-inflammatory activity of flavonoids from *Cayaponia tayuya* roots,” *Journal of Ethnopharmacology*, vol. 121, no. 2, pp. 333–337, 2009.
- [144] J. M. Macedo, L. G. P. Souza, V. C. T. Valenzuela, A. B. Oliveira, R. O. Castilho, and R. L. R. P. Jácome, “Variação sazonal nos teores de flavonoides, taninos e atividade antioxidante de *Davilla rugosa* Poir,” *Revista de Ciências Farmacêuticas Básica e Aplicada*, vol. 4, no. 4, pp. 585–590, 2013.
- [145] L. Guaraldo, J. A. A. Sertiè, and E. M. Bacchi, “Antiulcer action of the hydroalcoholic extract and fractions of *Davilla rugosa* Poiret in the rat,” *Journal of Ethnopharmacology*, vol. 76, no. 2, pp. 191–195, 2001.
- [146] C. M. Feitosa, R. M. Freitas, N. N. N. Luz, M. Z. B. Bezerra, and M. T. S. Trevisan, “Acetylcholinesterase inhibition by some promising Brazilian medical plants,” *Brazilian Journal of Biology*, vol. 71, no. 3, pp. 783–789, 2011.
- [147] E. Oskoueian, N. Abdullah, S. Ahmad, W. Z. Saad, A. R. Omar, and Y. W. Ho, “Bioactive compounds and biological activities of *Jatropha curcas* L. kernel meal extract,” *International Journal of Molecular Sciences*, vol. 12, no. 9, pp. 5955–5970, 2011.
- [148] O. O. Igbinsola, I. H. Igbinsola, V. N. Chigor et al., “Polyphenolic contents and antioxidant potential of stem bark extracts from *Jatropha curcas* (Linn),” *International Journal of Molecular Sciences*, vol. 12, no. 5, pp. 2958–2971, 2011.
- [149] O. O. Aiyelaagbe, A. A. Hamid, E. Fattorusso, O. Tagliatalata-Scafati, H. C. Schröder, and W. E. Müller, “Cytotoxic activity of crude from *Jatropha* species, plants used extensively in African traditional medicine,” *Evidence-Based Complementary and Alternative Medicine*, vol. 2011, Article ID 134954, 7 pages, 2011.
- [150] V. M. F. Leite, J. B. Pinheiro, M. X. Pisani et al., “In vitro antimicrobial activity of an experimental dentifrice based on *Ricinus Communis*,” *Brazilian Dental Journal*, vol. 25, no. 3, pp. 191–196, 2014.
- [151] C. S. Silva, P. O. Nunes, C. S. Mescouto, R. C. S. T. Müller, D. C. Palheta, and K. G. Fernandes, “Avaliação do uso da casca do fruto e das folhas de *Caesalpinia ferrea* Martius como suplemento nutricional de Fe, Mn e Zn,” *Ciência e Tecnologia de Alimentos*, vol. 3, no. 30, pp. 751–754, 2010.
- [152] A. Oliveira, J. Batista, E. Paiva et al., “Avaliação da atividade cicatrizante do jucá (*Caesalpinia ferrea* Mart. ex Tul. var. *ferrea*) em lesões cutâneas de caprinos,” *Revista Brasileira de Plantas Medicinais*, vol. 12, no. 3, pp. 302–310, 2010.
- [153] V. H. Sousa, A. P. O. Barbosa, G. C. Cardoso et al., “Avaliação do potencial antidiabético de cinco plantas medicinais em ratos,” *Latin American Journal of Pharmacy*.
- [154] L. S. Magalhães, C. G. Pussente, L. R. Azevedo, and J. M. R. S. Crespo, “Avaliação da atividade antibacteriana do extrato de *Caesalpinia ferrea* Martius e desenvolvimento de uma formulação fitocosmética,” *Revista Científica da Faminas*, vol. 11, no. 1, pp. 27–43, 2015.
- [155] S. A. Dias, A. E. O. Neves, A. B. F. de Ferraz, J. N. Picada, and P. Pereira, “Neuropharmacological and genotoxic evaluation of ethanol extract from *Erythrina falcata* leaves, a plant used in Brazilian folk medicine,” *Revista Brasileira de Farmacognosia*, vol. 23, no. 2, pp. 335–341, 2013.
- [156] T. Chen, H. Sun, H. Yao et al., “Suppressive effects of *Indigofera suffruticosa* Mill extracts on lipopolysaccharide-induced inflammatory responses in murine RAW 264.7 macrophages,” *Food and Chemical Toxicology*, vol. 55, no. 55, pp. 257–264, 2013.
- [157] J. L. P. Alejo, R. Miranda, and G. Rodríguez, “Actividad anti-convulsivante (antiepileptica) del extracto fluido de *Indigofera suffruticosa* (anil cimarron),” *Revista Cubana de Plantas Mediciniais*, vol. 1, no. 2, pp. 7–10, 1996.
- [158] T. G. Calixto, M. E. R. Gonzalez, M. C. P. Wiltshire et al., “Tratamiento eficaz con tintura de añil 5 % de una paciente infestada por *Pediculus capitis*,” *Revista Cubana de Medicina Tropical y Parasitología*, vol. 63, no. 3, pp. 275–277, 2011.
- [159] G. M. Coelho, “Óleos essenciais para aromaterapia,” in *Dissertação*, Departamento de Biologia da Escola de Ciências, Universidade do Minho., 2009.
- [160] J. G. Melo, V. T. Nascimento, E. L. Amorim, C. S. Andrade Lima, and U. P. Albuquerque, “Avaliação da qualidade de amostras comerciais de boldo (*Peumus boldus* Molina), pata-de-vaca (*Bauhinia* spp.) e ginco (*Ginkgo biloba* L.),” *Revista Brasileira de Farmacognosia*, vol. 14, no. 2, pp. 111–120, 2004.
- [161] I. D. Silva, F. S. Takatsuka, M. R. Rocha, and M. G. Cunha, “Efeito do extrato de sucupira (*Pterodon emarginatus* Vog.) sobre o desenvolvimento de fungos e bactérias fitopatogênicas,” *Pesquisa Agropecuária Tropical*, vol. 35, no. 2, pp. 109–115, 2005.
- [162] A. P. Santos, D. T. Zatta, W. F. Moraes et al., “Composição química, atividade antimicrobiana do óleo essencial e ocorrência de esteróides nas folhas de *Pterodon emarginatus* Vogel, Fabaceae,” *Revista Brasileira de Farmacognosia*, vol. 20, no. 6, pp. 891–896, 2010.
- [163] K. G. L. Bustamante, A. D. F. Lima, M. L. Soares et al., “Avaliação da atividade antimicrobiana do extrato etanólico bruto da casca da sucupira branca (*Pterodon emarginatus* Vogel)—fabaceae,” *Revista Brasileira de Plantas Medicinais*, vol. 12, no. 3, pp. 341–345, 2010.
- [164] W. F. De Moraes, L. G. De Matos, M. V. Mariano Nascimento et al., “Anti-inflammatory and anti-nociceptive effects of *Pterodon emarginatus* stem bark alcohol extract,” *Pharmaceutical Biology*, vol. 47, no. 2, pp. 146–150, 2009.
- [165] J. Hoscheid and M. L. Cardoso, “Sucupira as a potential plant for arthritis treatment and other diseases,” *Arthritis & Rheumatology*, vol. 2015, pp. 1–12, 2015.
- [166] B. S. Oken, D. M. Storzbach, and J. A. Kaye, “The efficacy of *Ginkgo biloba* on cognitive function in Alzheimer disease,” *Archives of Neurology*, vol. 55, no. 11, pp. 1409–1415, 1998.
- [167] S. T. DeKosky, J. D. Williamson, A. L. Fitzpatrick et al., “*Ginkgo biloba* for prevention of dementia: a randomized controlled trial,” *The Journal of the American Medical Association*, vol. 300, no. 19, pp. 2253–2262, 2008.

- [168] C. S. Passos, M. D. Arbo, S. M. K. Rates, and G. L. von Poser, "Terpenóides com atividade sobre o Sistema Nervoso Central (SNC)," *Revista Brasileira de Farmacognosia*, vol. 19, no. 1, pp. 140–149, 2009.
- [169] M. Bigos, M. Wasiela, D. Kalembe, and M. Sienkiewicz, "Antimicrobial activity of geranium oil against clinical strains of *Staphylococcus aureus*," *Molecules*, vol. 17, no. 9, pp. 10276–10291, 2012.
- [170] M. Boukhris, M. Bouaziz, I. Feki, H. Jemai, A. El Feki, and S. Sayadi, "Hypoglycemic and antioxidant effects of leaf essential oil of *Pelargonium graveolens* L'Hér. in alloxan induced diabetic rats," *Lipids in Health and Disease*, vol. 11, no. 81, pp. 1–10, 2012.
- [171] J. Arroyo, Y. Almora, M. Condorhuamán et al., "Efecto del extracto alcohólico de *Mimosa pudica* (mimosa) sobre la fertilidad en ratas," *Anales de la Facultad de Medicina*, vol. 71, no. 4, pp. 265–270, 2011.
- [172] N. E. G. Trujillo, I. C. D. Toro, Y. C. Anido, T. R. Gra, L. S. Ojeda, and T. R. Graña, "Hepatotoxicidad aguda de la decocción de la planta *Mimosa pudica* em ratas Sprague Dawley," *Correo Científico Médico*, vol. 18, no. 1, pp. 25–32, 2014.
- [173] R. Rajendran and E. Krishnakumar, "Hypolipidemic activity of chloroform extract of *Mimosa pudica* leaves," *Avicenna Journal of Medical Biotechnology*, vol. 2, no. 4, pp. 215–221, 2010.
- [174] F. Y. Sia, J. Vejayan, A. Jamuna, and S. Ambu, "Efficacy of tannins from *Mimosa pudica* and tannic acid in neutralizing cobra (*Naja kaouthia*) venom," *Journal of Venomous Animals and Toxins including Tropical Diseases*, vol. 17, no. 1, pp. 42–48, 2011.
- [175] O. Hernández-Abreu, P. Castillo-España, I. León-Rivera et al., "Antihypertensive and vasorelaxant effects of tilianin isolated from *Agastache mexicana* are mediated by NO/cGMP pathway and potassium channel opening," *Biochemical Pharmacology*, vol. 78, no. 1, pp. 54–61, 2009.
- [176] O. Hernández-Abreu, L. Durán-Gómez, R. Best-Brown, R. Villalobos-Molina, J. Rivera-Leyva, and S. Estrada-Soto, "Validated liquid chromatographic method and analysis of content of tilianin on several extracts obtained from *Agastache mexicana* and its correlation with vasorelaxant effect," *Journal of Ethnopharmacology*, vol. 138, no. 2, pp. 487–491, 2011.
- [177] A. González-Ramírez, M. E. González-Trujano, F. Pellicer, and F. J. Lopez-Munoz, "Anti-nociceptive and anti-inflammatory activities of the *Agastache mexicana* extracts by using several experimental models in rodents," *Journal of Ethnopharmacology*, vol. 142, no. 3, pp. 700–705, 2012.
- [178] J. Verano, M. E. González-Trujano, M. Déciga-Campos, R. Ventura-Martínez, and F. Pellicer, "Ursolic acid from *Agastache mexicana* aerial parts produces antinociceptive activity involving TRPV1 receptors, cGMP and a serotonergic synergism," *Pharmacology Biochemistry & Behavior*, vol. 110, pp. 255–264, 2013.
- [179] M. E. González-Trujano, H. Ponce-Muñoz, S. Hidalgo-Figueroa, G. Navarrete-Vázquez, and S. Estrada-Soto, "Depressant effects of *Agastache mexicana* methanol extract and one of major metabolites tilianin," *Asian Pacific Journal of Tropical Medicine*, vol. 8, no. 3, pp. 185–190, 2015.
- [180] L. R. Chioca, "Avaliação do mecanismo de ação do efeito tipo ansiolítico da inalação do óleo essencial de lavanda em camundongos," *Tese, Setor de Ciências Biológicas, Universidade Federal do Paraná*, 2013.
- [181] L. Silva, "Ocorrência, diagnóstico molecular e resistência a antifúngicos de *Candida* sp. de infecções vaginais em Portugal e Cabo-Verde," in *Dissertação*, Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, 2013.
- [182] R. Sariri, S. Seifzadeh, and R. H. Sajedi, "Anti-tyrosinase and antioxidant activity of *Lavandula* sp. extracts," *Pharmacology-online*, vol. 3, pp. 319–326, 2009.
- [183] A. d. Pereira, M. d. Cardoso, L. R. Abreu, A. R. Morais, L. G. Guimarães, and A. P. Salgado, "Caracterização química e efeito inibitório de óleos essenciais sobre o crescimento de *Staphylococcus aureus* e *Escherichia coli*," *Ciência e Agrotecnologia*, vol. 32, no. 3, pp. 887–893, 2008.
- [184] I. Savini, R. Arnone, M. V. Catani, and L. Avigliano, "*Origanum vulgare* induces apoptosis in human colon cancer caco<sub>2</sub> cells," *Nutrition and Cancer*, vol. 61, no. 3, pp. 381–389, 2009.
- [185] A. Khan, S. Bashir, S. R. Khan, and A. H. Gilani, "Antiuro lithic activity of *Origanum vulgare* is mediated through multiple pathways," *BMC Complementary and Alternative Medicine*, vol. 11, article no. 96, pp. 1–16, 2011.
- [186] A. P. R. Battochio, K. L. R. Coelho, M. S. Sartori, and C. A. R. Coelho, "Hepatoprotective effect of water soluble extract of *Coleus barbatus* on cholestasis on young rats," *Acta Cirurgica Brasileira*, vol. 23, no. 3, pp. 220–229, 2008.
- [187] S. Felisbino, "Análise Farmacognóstica de *Cunila microcephala* Benth," in *Monografia*, Universidade do Extremo Sul Catarinense, Criciúma, Brazil, 2010.
- [188] R. D. C. Paulino, G. P. D. S. A. Henriques, O. N. S. Moura, M. D. F. B. Coelho, and R. A. B. Azevedo, "Medicinal plants at the Sítio do Gois, Apodi, Rio Grande do Norte State, Brazil," *Revista Brasileira de Farmacognosia*, vol. 22, no. 1, pp. 29–39, 2011.
- [189] S. B. Mishra, A. Verma, A. Mukerjee, and M. Vijayakumar, "Anti-hyperglycemic activity of leaves extract of *Hyptis suaveolens* L. Poit in streptozotocin induced diabetic rats," *Asian Pacific Journal of Tropical Medicine*, vol. 4, no. 9, pp. 689–693, 2011.
- [190] H. Ghaffari, B. J. Ghassam, and H. S. Prakash, "Hepatoprotective and cytoprotective properties of *Hyptis suaveolens* against oxidative stress-induced damage by CCl<sub>4</sub> and H<sub>2</sub>O<sub>2</sub>," *Asian Pacific Journal of Tropical Medicine*, vol. 5, no. 11, pp. 868–874, 2012.
- [191] C. Vera-Arzave, L. C. Antonio, J. Arrieta et al., "Gastroprotection of suaveolol, isolated from *hyptis suaveolens*, against ethanol-induced gastric lesions in wistar rats: Role of prostaglandins, nitric oxide and sulfhydryls," *Molecules*, vol. 17, no. 8, pp. 8917–8927, 2012.
- [192] H. Ghaffari, B. J. Ghassam, S. Chandra Nayaka, K. Ramachandra Kini, and H. S. Prakash, "Antioxidant and neuroprotective activities of *Hyptis suaveolens* (L.) Poit. against oxidative stress-induced neurotoxicity," *Cellular and Molecular Neurobiology*, vol. 34, no. 3, pp. 323–331, 2014.
- [193] Í. J. A. Moreira, M. P. N. Moreno, M. F. G. Fernandes et al., "Vasorelaxant effect of *Hyptis fruticosa* Salzm. ex Benth., Lamiaceae, dichloromethane extract on rat mesenteric artery," *Revista Brasileira de Farmacognosia*, vol. 20, no. 5, pp. 762–766, 2010.
- [194] R. Novacosk and R. S. A. Torres, "Atividade antimicrobiana sinérgica entre óleos essenciais de lavanda (*Lavandula officinalis*), melaleuca (*Melaleuca alternifolia*), cedro (*Juniperus virginiana*), tomilho (*Thymus vulgaris*) e cravo (*Eugenia caryophyllata*)," *Revista Analytica*, vol. 21, no. 21, pp. 36–39, 2006.
- [195] Z. Rabiei and M. Rafieian-Kopaei, "Neuroprotective effect of pretreatment with *Lavandula officinalis* ethanolic extract on blood-brain barrier permeability in a rat stroke model," *Asian*

- Pacific Journal of Tropical Medicine*, vol. 7, no. 1, pp. S421–S426, 2014.
- [196] R. Alnamer, K. Alaoui, E. H. Boudida, A. Benjouad, and Y. Cherrah, “Sedative and hypnotic activities of the methanolic and aqueous extracts of *Lavandula officinalis* from Morocco,” *Advances in Pharmacological Sciences*, vol. 2012, Article ID 270824, pp. 1–5, 2012.
- [197] H. Gopal, S. Vasanth, and S. V. Vasudevan, “Antimicrobial activity of essential oil of *Leonotis nepetaefolia*,” *Ancient Science of Life*, vol. 14, pp. 68–70, 1994.
- [198] H. Parra-Delgado, G. G. Ruiz, A. N. Camacho, and M. Martínez-Vázquez, “Anti-inflammatory activity of some extracts and isolates from *Leonotis nepetaefolia* on TPA-induced edema model,” in *Revista de la Sociedad Química de México*, vol. 48, pp. 293–295, 2004.
- [199] A. L. Cadena-González, M. Sørensen, and I. Theilade, “Use and valuation of native and introduced medicinal plant species in Campo Hermoso and Zetaquirá, Boyacá, Colombia,” *Journal of Ethnobiology and Ethnomedicine*, vol. 9, no. 1, article no. 23, pp. 1–34, 2013.
- [200] D. P. Müzell, A. Lunardelli, C. E. Leite et al., “Nephroprotective and anti-inflammatory effects of aqueous extract of *Melissa officinalis* L. on acetaminophen-induced and pleurisy-induced lesions in rats,” *Brazilian Archives of Biology and Technology*, vol. 56, no. 3, pp. 383–392, 2013.
- [201] K. Feliú-Hemmelmann, F. Monsalve, and C. Rivera, “*Melissa Officinalis* and *Passiflora caerulea* infusion as physiological stress decrease,” *International Journal of Clinical and Experimental Medicine*, vol. 6, no. 6, pp. 444–451, 2013.
- [202] L. Barros, M. Dueñas, M. I. Dias, M. J. Sousa, C. Santos-Buelga, and I. C. F. R. Ferreira, “Phenolic profiles of cultivated, in vitro cultured and commercial samples of *Melissa officinalis* L. infusions,” *Food Chemistry*, vol. 136, no. 1, pp. 1–8, 2013.
- [203] N. C. de Carvalho, M. J. F. Corrêa-Angeloni, D. D. Leffa et al., “Evaluation of the genotoxic and antigenotoxic potential of *Melissa officinalis* in mice,” *Genetics and Molecular Biology*, vol. 34, no. 2, pp. 290–297, 2011.
- [204] M. Bayat, A. A. Azami Tameh, M. H. Ghahremani et al., “Neuroprotective properties of *Melissa officinalis* after hypoxic-ischemic injury both in vitro and in vivo,” *DARU Journal of Pharmaceutical Sciences*, vol. 20, article 42, pp. 1–10, 2012.
- [205] M. Johnson, E. G. Wesely, M. S. Kavitha, and V. Uma, “Antibacterial activity of leaves and inter-nodal callus extracts of *Mentha arvensis* L.,” *Asian Pacific Journal of Tropical Medicine*, vol. 4, no. 3, pp. 196–200, 2011.
- [206] K. K. A. Santos, E. F. F. Matias, C. E. S. Souza et al., “Anti-*Candida* activity of *Mentha arvensis* and *Turnera ulmifolia*,” *Journal of Medicinal Food*, vol. 15, no. 3, pp. 322–324, 2012.
- [207] S. M. Verma, H. Arora, and R. Dubey, “Antiinflammatory and sedative hypnotic activity of the methanolic extract of the leaves of *Mentha arvensis*,” *Ancient Science of Life*, vol. 23, article 2, pp. 95–99, 2003.
- [208] R. L. Londonkar and P. V. Poddar, “Studies on activity of various extracts of *Mentha arvensis* Linn against drug induced gastric ulcer in mammals,” *World Journal of Gastrointestinal Oncology*, vol. 1, no. 1, pp. 82–88, 2009.
- [209] A. Stringaro, E. Vavala, and M. Colone, “Effects of *Mentha suaveolens* essential oil alone or in combination with other drugs in *Candida albicans*,” *Evidence-Based Complementary and Alternative Medicine*, vol. 2014, Article ID 125904, 9 pages, 2014.
- [210] D. Pietrella, L. Angiolella, E. Vavala, A. Rachini, F. Mondello, and R. Ragno, “Beneficial effect of *Mentha suaveolens* essential oil in the treatment of vaginal candidiasis assessed by real-time monitoring of infection,” *BMC Complementary and Alternative Medicine*, vol. 11, article 8, 2011.
- [211] V. López, S. Martín, M. P. Gómez-Serranillos, M. E. Carretero, A. K. Jäger, and M. I. Calvo, “Neuroprotective and neurochemical properties of mint extracts,” *Phytotherapy Research*, vol. 24, no. 6, pp. 869–874, 2010.
- [212] H. Oumzil, S. Ghouami, and M. Rhajaoui, “Antibacterial and antifungal activity of essential oils of *Mentha suaveolens*,” *Phytotherapy Research*, vol. 16, no. 8, pp. 727–731, 2002.
- [213] M. C. Pereira, G. R. Vilela, L. M. Costa et al., “Inibição do desenvolvimento fúngico através da utilização de óleos essenciais de condimentos,” *Ciência e Agrotecnologia*, vol. 30, no. 4, pp. 731–738, 2006.
- [214] C. d. Carretto, J. C. Junqueira, R. B. Almeida, M. R. Furlan, and A. O. Jorge, “Antimicrobial activity of *Mentha piperita* L. against *Candida* sp,” *Brazilian Dental Science*, vol. 13, no. 1, pp. 4–9, 2010.
- [215] M. A. Maggiore, A. A. Albanese, L. B. Gende, M. J. Eguaras, G. M. Denegri, and M. C. Elissondo, “Anthelmintic effect of *Mentha* spp. essential oils on *Echinococcus granulosus* proto-scolecids and metacestodes,” *Parasitology Research*, vol. 110, no. 3, pp. 1103–1112, 2012.
- [216] S. M. Barbalho, F. M. V. F. Machado, E. L. Guiger et al., “Espécies de *Mentha* podem auxiliar na redução de fatores de risco vascular em pacientes diabéticos,” *Revista Saúde e Pesquisa*, vol. 4, no. 3, pp. 387–392, 2011.
- [217] D. Jain, N. Pathak, S. Khan et al., “Evaluation of cytotoxicity and anticarcinogenic potential of *Mentha* leaf extracts,” *International Journal of Toxicology*, vol. 30, no. 2, pp. 225–236, 2011.
- [218] Y. A. Taher, “Antinociceptive activity of *Mentha piperita* leaf aqueous extract in mice,” *Libyan Journal of Medicine*, vol. 7, no. 1, pp. 1–5, 2012.
- [219] M. Mahboubi and G. Haghi, “Antimicrobial activity and chemical composition of *Mentha pulegium* L. essential oil,” *Journal of Ethnopharmacology*, vol. 119, no. 2, pp. 325–327, 2008.
- [220] P. Arumugam, N. G. Priya, M. Subathra, and A. Ramesh, “Anti-inflammatory activity of four solvent fractions of ethanol extract of *Mentha spicata* L. investigated on acute and chronic inflammation induced rats,” *Environmental Toxicology and Pharmacology*, vol. 26, no. 1, pp. 92–95, 2008.
- [221] Z. Tayarani-Najaran, E. Talasaz-Firoozi, R. Nasiri, N. Jalali, and M. K. Hassanzadeh, “Antiemetic activity of volatile oil from *Mentha spicata* and *Mentha* × *piperita* in chemotherapy-induced nausea and vomiting,” *ecancermedicalscience*, vol. 7, no. 1, article no. 290, pp. 1–6, 2013.
- [222] T. A. Arruda, R. M. Antunes, R. M. Catão et al., “Preliminary study of the antimicrobial activity of *Mentha x villosa* Hudson essential oil, rotundifolone and its analogues,” *Revista Brasileira de Farmacognosia*, vol. 16, no. 3, pp. 307–311, 2006.
- [223] A. V. L. Freitas, R. A. B. Azevedo, Y. B. Pereira, E. C. Freitas Neto, and M. F. B. Coelho, “Uses of medicinal plants in Rio Grande do Norte,” *Journal of Global Biosciences*, vol. 3, no. 4, pp. 749–762, 2014.
- [224] J. S. Oliveira, L. A. Porto, C. S. Estevam et al., “Phytochemical screening and anticonvulsant property of *Ocimum basilicum* leaf essential oil,” *Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromaticas*, vol. 8, no. 3, pp. 195–202, 2009.
- [225] C. V. Nakamura, T. Ueda-Nakamura, E. Bando, A. F. Negrão Melo, D. A. Garcia Cortez, and B. P. Dias Filho Filho, “Antibacterial activity of *Ocimum gratissimum* L. essential oil,” *Memórias do Instituto Oswaldo Cruz*, vol. 94, no. 5, pp. 675–678, 1999.

- [226] H. Amagase, B. L. Petesch, H. Matsuura, S. Kasuga, and Y. Itakura, "Intake of garlic and its bioactive components," *Journal of Nutrition*, vol. 131, no. 3, pp. 955–962, 2001.
- [227] J. De Aquino Lemos, X. S. Passos, O. D. F. Lisboa Fernandes et al., "Antifungal activity from *Ocimum gratissimum* L. towards *Cryptococcus neoformans*," *Memórias do Instituto Oswaldo Cruz*, vol. 100, no. 1, pp. 55–58, 2005.
- [228] K. S. Haida, L. Parzianello, S. Werner, D. R. Garcia, and C. V. Inácio, "Avaliação in vitro da atividade antimicrobiana de oito espécies de plantas medicinais," *Arquivos de Ciências da Saúde da UNIPAR*, vol. 11, no. 3, pp. 185–192, 2007.
- [229] Y. Al Dhaheri, S. Attoub, K. Arafat et al., "Anti-metastatic and anti-tumor growth effects of *Origanum majorana* on highly metastatic human breast cancer cells: inhibition of NF $\kappa$ B signaling and reduction of nitric oxide production," *PLoS ONE*, vol. 8, no. 7, Article ID e68808, pp. 1–17, 2013.
- [230] B. P. Pimple, P. V. Kadam, and M. J. Patil, "Comparative antihyperglycaemic and antihyperlipidemic effect of *Origanum majorana* extracts in NIDDM rats," *Oriental Pharmacy and Experimental Medicine*, vol. 12, no. 1, pp. 41–50, 2012.
- [231] M. C. Costa and S. C. Nascimento, "Atividade citotóxica de *Plectranthus barbatus* Andr. (Lamiaceae)," *Revista Acta Farmacêutica Bonaerense*.
- [232] P. L. Falé, P. J. Madeira, M. H. Florêncio, L. Ascensão, and M. L. Serralheiro, "Function of *Plectranthus barbatus* herbal tea as neuronal acetylcholinesterase inhibitor," *Food and Function*, vol. 2, no. 2, pp. 130–136, 2010.
- [233] R. Santos Veríssimo, T. Lins, M. Assis Bastos et al., "Antimicrobial activity of *Plectranthus barbatus* (Lamiaceae)," *BMC Proceedings*, vol. 8, no. Suppl 4, 2014.
- [234] N. S. Silva, P. I. N. M. L. Marinho, C. C. Santana, M. B. Assis, and P. I. Nóbrega Neto, "Utilização do extrato hidroalcoólico de *Plectranthus neochilus* no controle da dor pós-operatória em gatas," *Revista Verde*, vol. 7, no. 5, pp. 34–40, 2012.
- [235] A. C. P. Cavalcante and A. G. Silva, "Levantamento etnobotânica e utilização de plantas medicinais na comunidade Moura, Bananeiras-PB," *Revista Monografias Ambientais*, vol. 14, no. 2, pp. 3225–3230, 2014.
- [236] M. A. S. Silva, M. A. Silva, J. S. Higino, M. S. Pereira, and A. A. T. Carvalho, "Atividade antimicrobiana e antiaderente in vitro do extrato de *Rosmarinus officinalis* Linn. sobre bactérias orais planctônicas," *Revista Brasileira de Farmacognosia*, vol. 18, no. 2, pp. 236–240, 2008.
- [237] L. M. Gauch, S. S. Pedrosa, R. A. Esteves et al., "Antifungal activity of *Rosmarinus officinalis* Linn. Essential oil against *Candida albicans*, *Candida dubliniensis*, *Candida parapsilosis* and *Candida krusei*," *Revista Pan-Amazônica de Saúde*, vol. 5, no. 1, pp. 61–66, 2014.
- [238] W. Wang, N. Li, M. Luo, Y. Zu, and T. Efferth, "Antibacterial activity and anticancer activity of *Rosmarinus officinalis* L. essential oil compared to that of its main components," *Molecules*, vol. 17, no. 3, pp. 2704–2713, 2012.
- [239] D. G. MacHado, M. P. Cunha, V. B. Neis et al., "Antidepressant-like effects of fractions, essential oil, carnosol and betulinic acid isolated from *Rosmarinus officinalis* L.," *Food Chemistry*, vol. 136, no. 2, pp. 999–1005, 2013.
- [240] R. Lucarini, W. A. Bernardes, D. S. Ferreira et al., "In vivo analgesic and anti-inflammatory activities of *Rosmarinus officinalis* aqueous extracts, rosmarinic acid and its acetyl ester derivative," *Pharmaceutical Biology*, vol. 51, no. 9, pp. 1087–1090, 2013.
- [241] S. Habtemariam, "The therapeutic potential of rosemary (*Rosmarinus officinalis*) Diterpenes for Alzheimer's Disease," *Evidence-Based Complementary and Alternative Medicine*, vol. 2016, Article ID 2680409, pp. 1–15, 2016.
- [242] M. Ozarowski, P. L. Mikolajczak, A. Bogacz et al., "*Rosmarinus officinalis* L. leaf extract improves memory impairment and affects acetylcholinesterase and butyrylcholinesterase activities in rat brain," *Fitoterapia*, vol. 91, pp. 261–271, 2013.
- [243] T. Satoh, K. Kosaka, K. Itoh et al., "Carnosic acid, a catechol-type electrophilic compound, protects neurons both in vitro and in vivo through activation of the Keap1/Nrf2 pathway via S-alkylation of targeted cysteines on Keap," *Journal of Neurochemistry*, vol. 104, no. 4, pp. 1116–1131, 2008.
- [244] A. C. Piccinelli, D. Figueiredo de Santana Aquino, P. N. Morato et al., "Anti-inflammatory and antihyperalgesic activities of ethanolic extract and fruticulins from *Salvia lachnostachys* leaves in mice," *Evidence-Based Complementary and Alternative Medicine*, vol. 2014, Article ID 835914, pp. 1–8, 2014.
- [245] J. Jimenez, S. Risco, T. Ruiz, and A. Zarzuelo, "Hypoglycemic activity of *Salvia lavandulifolia*," *Planta Medica*, vol. 4, pp. 260–262, 1986.
- [246] M. Porres Martínez, M. P. Gómez-Serranillos, and M. E. Carretero Accame, "Neuroprotective activity of *Salvia lavandulifolia* Vahl. Essential oil," *Ars Pharmaceutica*, vol. 51, no. 3, pp. 657–675, 2010.
- [247] A. Tosun, S. Khan, Y. S. Kim, A. Calín-Sánchez, and X. Hysenaj, "Essential oil composition and anti-inflammatory activity of *Salvia officinalis* L. (Lamiaceae) in murin macrophages," *Tropical Journal of Pharmaceutical Research*, vol. 13, no. 6, pp. 111–116, 2014.
- [248] E. Y. Qnais, M. Abu-Dieyeh, F. A. Abdulla, and S. S. Abdalla, "The antinociceptive and anti-inflammatory effects of *Salvia officinalis* leaf aqueous and butanol extracts," *Pharmaceutical Biology*, vol. 48, no. 10, pp. 1149–1156, 2010.
- [249] I. O. Lima, R. A. G. Oliveira, E. O. Lima, N. M. P. Farias, and E. L. Souza, "Atividade antifúngica de óleos essenciais sobre espécies de *Candida*," *Brazilian Journal of Pharmacognosy*, vol. 16, no. 2, pp. 197–201, 2006.
- [250] J. M. Freire, M. G. Cardoso, L. R. Batista, and M. A. Andrade, "Essential oil of *Origanum majorana* L., *Illicium verum* Hook. f. and *Cinnamomum zeylanicum* Blume: Chemical and antimicrobial characterization," *Revista Brasileira de Plantas Medicinais*, vol. 13, no. 2, pp. 209–214, 2011.
- [251] A. Ranjbar, S. Ghasmeinezhad, H. Zamani et al., "Antioxidative stress potential of *Cinnamomum zeylanicum* in humans: A comparative cross-sectional clinical study," *Thérapie*, vol. 3, no. 1, pp. 113–117, 2006.
- [252] M. Tailang, B. K. Gupta, and A. Sharma, "Antidiabetic activity of alcoholic extract of *Cinnamomum zeylanicum* leaves in alloxan induced diabetic rats," *Peoples Journal of Scientific Research*, no. 1, pp. 9–11, 2008.
- [253] E. O. Alves, J. H. Mota, T. S. Soares, M. C. Vieira, and C. B. Silva, "Levantamento etnobotânico e caracterização de plantas medicinais em fragmentos florestais de Dourados-MS," *Ciência e Agrotecnologia*, vol. 32, no. 2, pp. 651–658, 2008.
- [254] J. S. M. Tondolo, L. P. De Amaral, L. N. Simões et al., "Anesthesia and transport of fat snook snook *Centropomus parallelus* with the essential oil of *Nectandra megapotamica* (Spreng.) Mez," *Neotropical Ichthyology*, vol. 11, no. 3, pp. 667–674, 2013.
- [255] R. A. Vieira, A. J. Lapa, and T. C. Lima, "Evaluation of the central activity of the ethanolic extract of *Acosmium subelegans* (Mohlenbr) in mice," *Revista Brasileira de Farmacognosia*, vol. 12, supplement 1, pp. 50–51, 2002.

- [256] J. H. Doughari, "Antimicrobial activity of *Tamarindus indica* Linn," *Tropical Journal of Pharmaceutical Research*, vol. 5, no. 2, pp. 597–603, 2006.
- [257] A. H. Teixeira, M. M. Bezerra, H. V. Chaves, D. R. Val, S. M. P. Filho, and A. A. R. Silva, "Conhecimento popular sobre o uso de plantas medicinais no município de Sobral-Ceará, Brasil," *Sanare*.
- [258] M. D. Souza, R. R. Fernandes, and M. C. Pasa, "Estudo etnobotânico de plantas medicinais na comunidade São Gonçalo beira rio, Cuiabá, MT," *Revista Biodiversidade*, vol. 9, no. 1, pp. 91–100, 2010.
- [259] G. A. B. Canuto, A. A. O. Xavier, C. N. Leandro, and M. T. de Benassi, "Physical and chemical characterization of fruit pulps from Amazonia and their correlation to free radical scavenger activity," *Revista Brasileira de Fruticultura*, vol. 32, no. 4, pp. 1196–1205, 2010.
- [260] S. Khalid, W. M. Shaik Mossadeq, D. A. Israf et al., "In vivo analgesic effect of aqueous extract of tamarindus indica L. fruits," *Medical Principles and Practice*, vol. 19, no. 4, pp. 255–259, 2010.
- [261] A. A. Suralkaz, K. N. Rodge, R. D. Kamble, and K. S. Maske, "Evaluation of anti-inflammatory and analgesic activities of *Tamarindus indica* seeds," *International Journal of Pharmaceutical Sciences and Drug Research*, vol. 4, no. 3, pp. 213–217, 2012.
- [262] P. M. Tayade, B. Jadhav, S. S. Angadi et al., "Anti-histaminic activity of methanolic extract of leaves of *Tamarindus indica* Linn," *Journal of Chemical and Pharmaceutical Sciences*, vol. 2, no. 4, pp. 273–277, 2009.
- [263] P. Kalra, S. Sharma, and S. K. Suman, "Antilucer effect of the methanolic extract of *Tamarindus indicaseeds* in different experimental models," *Journal of Pharmacy and Bioallied Sciences*, vol. 2, no. 3, pp. 236–241, 2011.
- [264] G. Singi, D. Damasceno, E. D'Andréa, and G. Silva, "Efeitos agudos dos extratos hidroalcolicos do alho (*Allium sativum* L.) e do capim-limão (*Cymbopogon citratus* (DC.) Stapf) sobre a pressão arterial média de ratos anestesiados," *Revista Brasileira de Farmacognosia*, vol. 15, no. 2, pp. 94–97, 2005.
- [265] G. D. Almeida, E. P. Godoi, E. C. Santos, L. R. P. Lima, and M. E. Oliveira, "Extrato aquoso de *Allium sativum* potencializa a ação dos antibióticos vancomicina, gentamicina e tetraciclina frente *Staphylococcus aureus*," *Revista de Ciências Farmacêuticas Básica e Aplicada*, vol. 34, no. 4, pp. 487–492, 2013.
- [266] S. A. Tope, O. F. Sunday, and A. T. Gabriel, "Mechanisms of antiulcerogenic effect of garlic (*Allium sativum*) in albino rats," *European Journal of Medicinal Plants*, vol. 4, no. 5, pp. 571–578, 2013.
- [267] J. Riba, S. Romero, E. Grasa, E. Mena, I. Carrió, and M. J. Barbanoj, "Increased frontal and paralimbic activation following ayahuasca, the pan-amazonian inebriant," *Psychopharmacology*, vol. 186, no. 1, pp. 93–98, 2006.
- [268] R. G. Santos, C. C. Moraes, and A. Holanda, "Ayahuasca e redução do uso abusivo de psicoativos: eficácia terapêutica?" *Psicologia: Teoria e Pesquisa*, vol. 22, no. 3, pp. 363–370, 2006.
- [269] A. P. S. Pires, C. D. R. Oliveira, and M. Yonamine, "Ayahuasca: a review of pharmacological and toxicologia aspects," *Revista de Ciências Farmacêutica Básica e Ampliada*, vol. 31, no. 1, pp. 15–23, 2010.
- [270] L. S. G. D. Motta, "Toxicidade aguda, neurotoxicidade reprodutiva e embriotoxicidade do chá ayahuasca (*Banisteriopsis caapi* e *Psychotria viridis*) em ratos wistar," in *Dissertação - Mestrado em Ciências da Saúde*, Universidade de Brasília, 2013.
- [271] J. Tortoriello, A. Herrera-Arellano, M. L. Herrera-Ruiz, G. Rojas-Bribiesca, A. Zamilpa, and V. Gonzáles, "PL04 Aplicación clinica de um ansiolítico obtenido de *Galphimia glauca*," *Revista de Fitoterapia*, vol. 6, supplement 1, pp. 37–40, 2006.
- [272] J. A. C. Ribeiro, "A Cannabis e suas aplicações terapêuticas," in *Dissertation*, Faculdade de Ciências da Saúde, Universidade Fernando Pessoa, Porto, Portugal, 2014.
- [273] K. M. Honório, A. Arroio, and A. B. Silva, "Aspectos terapêuticos de compostos da planta *Cannabis sativa*," *Química Nova*, vol. 29, no. 2, pp. 318–325, 2006.
- [274] A. J. Hill, C. M. Williams, B. J. Whalley, and G. J. Stephens, "Phytocannabinoids as novel therapeutic agents in CNS disorders," *Pharmacology & Therapeutics*, vol. 133, no. 1, pp. 79–97, 2012.
- [275] A. W. Zuardi, J. A. S. Crippa, J. E. C. Hallak, F. A. Moreira, and F. S. Guimarães, "Cannabidiol, a *Cannabis sativa* constituent, as an antipsychotic drug," *Brazilian Journal of Medical and Biological Research*, vol. 39, no. 4, pp. 421–429, 2006.
- [276] J. F. Pedrazzi, A. C. Pereira, F. V. Gomes, and E. D. Bel, "Perfil antipsicótico do canabidiol," *Medicina*, vol. 47, no. 2, pp. 112–119, 2014.
- [277] J. A. C. Ribeiro, *A cannabis e suas aplicações terapêuticas*, Dissertatiom, Universidade Fernando Pessoa. Faculdade de Ciências da Saude., Porto, Portugal, 2014.
- [278] B. M. Ruppelt, E. F. Pereira, L. C. Gonçalves, and N. A. Pereira, "Pharmacological screening of plants recommended by folk medicine as anti-snake venom - I. analgesical and anti-inflammatory activities," *Memórias do Instituto Oswaldo Cruz*, vol. 86, supplement 2, pp. 203–205, 1991.
- [279] R. O. Arise, S. O. Malomo, J. O. Adebayo, and A. Igunnu, "Effects of aqueous extract of *Eucalyptus globulus* on lipid peroxidation and selected enzymes of rat liver," *Journal of Medicinal Plants Research*, vol. 3, no. 2, pp. 77–81, 2009.
- [280] R. G. Bachir and M. Benali, "Antibacterial activity of the essential oils from the leaves of *Eucalyptus globulus* against *Escherichia coli* and *Staphylococcus aureus*," *Asian Pacific Journal of Tropical Biomedicine*, vol. 2, no. 9, pp. 739–742, 2012.
- [281] B. Damjanović-Vratnica, T. Đakov, D. Šuković, and J. Damjanović, "Antimicrobial effect of essential oil isolated from *Eucalyptus globulus* Labill. from Montenegro," *Czech Journal of Food Sciences*, vol. 29, no. 3, pp. 277–284, 2011.
- [282] E. O. Alves, J. H. Mota, T. S. Soares, M. C. Vieira, and C. B. Silva, "Levantamento etnobotânico e caracterização de plantas medicinais em fragmentos florestais de Dourados-MS," *Ciência e Tecnologia*, vol. 32, no. 2, pp. 651–658, 2008.
- [283] M. T. Auricchio, A. Bugno, S. B. M. Barros, and E. M. Bacchi, "Atividades antimicrobiana e antioxidante e toxicidade de *Eugenia uniflora*," *Latin American Journal of Pharmacy*, vol. 1, no. 26, pp. 78–81, 2006.
- [284] B. N. Das and M. Ahmed, "Analgesic activity of fruit extract of *Averrhoa carambola*," *International Journal of Life Sciences Biotechnology and Pharma Research*, vol. 1, no. 3, pp. 22–26, 2013.
- [285] C. V. Romanini, M. W. Machado, M. W. Biavatti, and R. M. W. Oliveira, "Avaliação da atividade ansiolítica e antidepressiva do extrato fluido e fração aquosa de folhas de *Passiflora alata* Curtis em camundongos," *Acta Scientiarum Health Sciences*, vol. 28, no. 2, pp. 159–164, 2006.
- [286] A. Pirondo, J. P. Coulleri, H. A. Keller, and M. S. Ferruci, "Influencia de factores externos sobre La comercialización de plantas medicinales em um medio urbano: el caso de vendedores criollos e indígenas en Corrientes, Argentina," *Boletín*

- Latinoamericano y del Caribe de Plantas Medicinales y Aromaticas*, vol. 10, no. 6, pp. 553–569, 2011.
- [287] C. Wolfman, H. Viola, A. Paladini, F. Dajas, and J. H. Medina, “Possible anxiolytic effects of chrysin, a central benzodiazepine receptor ligand isolated from *Passiflora coerulea*,” *Pharmacology Biochemistry & Behavior*, vol. 47, no. 1, pp. 1–4, 1994.
- [288] M. Coleta, M. T. Batista, M. G. Campos et al., “Neuropharmacological evaluation of the putative anxiolytic effects of *Passiflora edulis* Sims, its sub-fractions and flavonoid constituents,” *Phytotherapy Research*, vol. 20, no. 12, pp. 1067–1073, 2006.
- [289] A. S. Figueiredo and J. Modesto-Filho, “Efeito do uso da farinha desemgordura do *Sesamum indicum* L nos níveis glicêmicos em diabetics tipo 2,” *Revista Brasileira de Farmacognosia*, vol. 18, no. 1, pp. 77–83, 2008.
- [290] S. C. C. S. Pantojas, N. A. S. Sul, and N. N. N. Miguel, “Levantamento etnobotânico de *Petiveria alliacea* L. (phytolaccaceae) comercializadas no mercado de Madureira – RJ,” *Revista Eletrônica Novo Enfoque*, vol. 17, no. 17, pp. 184–190, 2013.
- [291] R. C. M. Guedes, N. G. P. Nogueira, A. M. F. Almeida, C. R. Souza, and W. P. Oliveira, “Atividade antimicrobiana de extratos brutos de *Petiveria alliacea* L,” *Latin American Journal of Pharmacy*, vol. 28, no. 4, pp. 520–524, 2009.
- [292] Gomes B. P., “Avaliação dos efeitos centrais e atinocéptivos das frações isoladas da raiz de *Petiveria alliacea* (TIPI) em camundongos,” in *Dissertação*, Universidade Federal do Ceará, Faculdade de Medicina, 2006.
- [293] K. S. Fernandes, A. H. M. Silva, S. A. Mendanha, K. R. Rezende, and A. Alonso, “Antioxidant effect of 4- nerolidylcatechol and  $\alpha$ -tocopherol in erythrocyte ghost membranes and phospholipid bilayers,” *Brazilian Journal of Medical and Biological Research*, vol. 46, no. 9, pp. 780–788, 2013.
- [294] J. L. Sacoman, K. M. Monteiro, A. Possenti, G. M. Figueira, M. A. Foglio, and J. E. Carvalho, “Cytotoxicity and antitumoral activity of dichloromethane extract and its fractions from *Pothomorphe umbellata*,” *Brazilian Journal of Medical and Biological Research*, vol. 41, no. 5, pp. 411–415, 2008.
- [295] L. Ferreira, P. Castro, F. Suzelei, and B. Rene, “In vitro anthelmintic activity of *Pothomorphe umbellata* (L.) Miq. (Piperaceae) against gastrointestinal parasites from sheep,” *BMC Proceedings*, vol. 8, article 155, supplement 4, 2014.
- [296] G. S. Miranda, S. R. Souza, M. O. F. Amaro, M. B. Rosa, and C. A. Carvalho, “Avaliação do conhecimento etnofarmacológico da população de Teixeira- MG, Brasil,” *Brasil. Revista de Ciências Farmacêuticas Básica e Aplicada*, vol. 34, no. 4, pp. 559–563, 2013.
- [297] M. M. Blanco, C. A. R. A. Costa, A. O. Freire, J. G. Santos Jr., and M. Costa, “Neurobehavioral effect of essential oil of *Cymbopogon citratus* in mice,” *Phytomedicine*, vol. 16, no. 2–3, pp. 265–270, 2009.
- [298] F. Nogueira, S. Fernandes, G. Reis et al., “Atividade analgésica e anti-dematogênica de *Polygala paniculata* L. (Poygalaceae) selvagem e obtida por micropigmentação,” *Brazilian Journal of Pharmacognosy*, vol. 15, no. 4, pp. 310–315, 2005.
- [299] R. F. Lapa, “Avaliação da atividade antinociceptiva, anti-inflamatória e protetora gástrica do extrato hidroalcoólico bruto da *Polygala paniculata* L,” in *Dissertação*, Departamento de Farmacologia, Setor e Ciências Biológicas, Universidade Federal do Paraná, 2006.
- [300] M. C. Nuria, “Antibacterial activities from *Jangkang* (*Homalocladium platycladum* (F. Muell) Bailey) Leaves,” *Mediagro*, vol. 6, no. 2, pp. 9–15, 2010.
- [301] F. F. Perazzo, G. H. B. Souza, W. Lopes et al., “Anti-inflammatory and analgesic properties of water–ethanolic extract from *Pothomorphe umbellata* (Piperaceae) aerial parts,” *Journal of Ethnopharmacology*, vol. 99, no. 2, pp. 215–220, 2005.
- [302] R. Kumar, V. Nair, Y. K. Gupta, and S. Singh, “Anti-inflammatory and anti-arthritic activity of aqueous extract of *Rosa centifolia* in experimental models in rats,” *International Journal of Rheumatic Diseases*, 2015.
- [303] C. T. Selvan, S. Velavan, and M. C. J. Milton, “Antioxidant activity of *Rosa centifolia* flowers,” *International Journal of Research in Plant Science*, vol. 4, no. 3, pp. 68–71, 2014.
- [304] S. Chandragopal, S. Kumar, and B. Archana, “Evaluations of anti-ulcer activity of *Rosa centifolia* (Linn) flowers in experimental rats,” *Journal of Natural Remedies*, vol. 12, no. 1, pp. 22–29, 2012.
- [305] A. Ferreira, C. Proença, M. L. M. Serralheiro, and M. E. M. Araújo, “The *in vitro* screening for acetylcholinesterase inhibition and antioxidant activity of medicinal plants from Portugal,” *Journal of Ethnopharmacology*, vol. 108, no. 1, pp. 31–37, 2006.
- [306] S. K. Andrade, “Avaliação das técnicas de extração e do potencial antioxidante dos estratos obtidos a partir de casca e de borra de café (*Coffea arábica*),” *Dissertação*, Universidade Federal de Santa Catarina, Programa de Pós-Graduação em Engenharia de Alimentos, 2011.
- [307] Motta, “Luciana Soares Gueiros da. Toxicidade aguda, neurotoxicidade reprodutiva e embriotoxicidade do chá ayahuasca (*Banisteriopsis caapi* e *Psychotria viridis*) em ratas wistar,” *Dissertação*, Universidade de Brasília, 2013.
- [308] V. L. Santos, V. B. M. Costa, M. F. Agra, B. A. Silva, and L. M. Batista, “Pharmacological studies of ethanolic extracts of *Maytenus rigida* Mart (Celastraceae) in animal models,” *Revista Brasileira de Farmacognosia*, vol. 17, no. 3, pp. 336–342, 2007.
- [309] R. Bertin, A. Garcia-Argaéz, M. Martnez-Vzquez, and G. Frolidi, “Age-dependent vasorelaxation of *Casimiroa edulis* and *Casimiroa pubescens* extracts in rat caudal artery *in vitro*,” *Journal of Ethnopharmacology*, vol. 137, no. 1, pp. 934–936, 2011.
- [310] G. Frolidi, R. Bertin, E. Secchi, G. Zagotto, M. Martínez-Vázquez, and A. García-Argaéz, “Vasorelaxation by extracts of *Casimiroa* spp. in rat resistance vessels and pharmacological study of cellular mechanisms,” *Journal of Ethnopharmacology*, vol. 134, no. 3, pp. 637–643, 2011.
- [311] M. Molina-Hernández, N. P. Tellez-Alcántara, J. Pérez García, J. I. O. Lopez, and M. T. Jaramillo, “Anxiolytic-like actions of leaves of *Casimiroa edulis* (Rutaceae) in male Wistar rats,” *Journal of Ethnopharmacology*, vol. 93, no. 1, pp. 93–98, 2004.
- [312] S. Mora, G. Diaz-Veliz, H. Lungenstrass et al., “Central nervous system activity of the hydroalcoholic extract of *Casimiroa edulis* in rats and mice,” *Journal of Ethnopharmacology*, vol. 97, no. 2, pp. 191–197, 2005.
- [313] D. M. Arbo, “Avaliação toxicológica de p-sinefrina e extrato de *Citrus aurantium* L. (Rutaceae),” in *Dissertação*, Faculdade de Farmácia, Programa de Pós-Graduação em Ciências Farmacêuticas, UFRGS, 2008.
- [314] C. A. R. A. Costa, T. C. Cury, B. O. Cassettari, R. K. Takahira, J. C. Flório, and M. Costa, “*Citrus aurantium* L. essential oil exhibits anxiolytic-like activity mediated by 5-HT<sub>1A</sub>-receptors and reduces cholesterol after repeated oral treatment,” *BMC Complementary and Alternative Medicine*, vol. 13, no. 42, pp. 1–10, 2013.
- [315] M. Akhlaghi, G. Shanamian, M. Rafeian-Kopaei, N. Parvin, M. Saadat, and M. Akhlaghi, “Flor de *Citrus aurantium* e ansiedade



- pré-operatória,” *Revista Brasileira de Anestesiologia*, vol. 61, pp. 702–712, 2011.
- [316] L. M. L. Campêlo, A. A. C. de Almeida, R. L. M. de Freitas et al., “Antioxidant and antinociceptive effects of *Citrus limon* essential oil in mice,” *Journal of Biomedicine and Biotechnology*, vol. 2011, Article ID 678673, 8 pages, 2011.
- [317] H. S. Parmar and A. Kar, “Antiperoxidative, antithyroidal, antihyperglycemic and cardioprotective role of *Citrus sinensis* peel extract in male mice,” *Phytotherapy Research*, vol. 22, no. 6, pp. 791–795, 2008.
- [318] J. C. Nogueira, M. d. Diniz, and E. O. Lima, “Atividade antimicrobiana in vitro de produtos vegetais em otite externa aguda,” *Brazilian Journal of Otorhinolaryngology*, vol. 74, no. 1, pp. 118–124, 2008.
- [319] F. C. Asolini, A. M. Tedesco, S. T. Carpes, C. Ferraz, and S. D. Alencar, “Atividade antioxidante e antibacteriana dos compostos fenólicos dos extratos de plantas usadas como chás,” *Brazilian Journal of Food Technology*.
- [320] K. C. Preethi, G. Kuttan, and R. Kuttan, “Anti-Tumour activity of *Ruta Graveolens* extract,” *Asian Pacific Journal of Cancer Prevention*, vol. 7, no. 3, pp. 439–443, 2006.
- [321] F. Loonat and G. J. I. Amabeoku, “Antinociceptive, anti-inflammatory and antipyretic activities of the leaf methanol extract of *Ruta graveolens* L. (Rutaceae) in mice and rats,” *African Journal of Traditional, Complementary and Alternative Medicine*, vol. 11, no. 3, pp. 173–181, 2014.
- [322] P. Gál, T. Toporcer, T. Grendel et al., “Effect of *Atropa belladonna* L. on skin wound healing: Biomechanical and histological study in rats and in vitro study in keratinocytes, 3T3 fibroblasts, and human umbilical vein endothelial cells,” *Wound Repair and Regeneration*, vol. 17, no. 3, pp. 378–386, 2009.
- [323] M. J. M. Guerra, M. L. Barreiro, Z. M. Rodríguez, E. B. Rodríguez, and A. I. Hernández, “Actividad antimicrobiana e irritabilidad vaginal e dérmica de extractos acuosos de hojas secas de *Solanum americanum* Mill,” *Revista Cubana de Plantas Medicinales*, vol. 14, pp. 1–8, 2009.
- [324] A. M. Aboul-Eneim, F. A. El-Ela, E. A. Shalaby, and H. A. El-Shemy, “Potent anticancer and antioxidant activities of active ingredients separated from *Solanum nigrum* and *Cassia italica* extracts,” *Journal of Arid Land Studies*, vol. 24, no. 1, pp. 145–152, 2014.
- [325] C. E. P. Araújo, R. F. O. Rodrigues, F. Oliveira, and L. Schreiner, “Análise preliminar da atividade antiulcerogênica do extrato hidroalcoólico de *Solanum cernuum* Vell,” *Acta Farmacêutica Bonaerense*, vol. 21, no. 4, pp. 283–286, 2002.
- [326] H. Zeng, J. Tian, Y. Zheng et al., “In vitro and in vivo activities of essential oil from the seed of *Anethum graveolens* L. against *Candida* spp,” *Evidence-Based Complementary and Alternative Medicine*, vol. 2011, Article ID 659704, 8 pages, 2011.
- [327] A. Arash, M.-Z. Mohammad, M. S. Jamal, T. A. Mohammad, and A. Azam, “Effects of the aqueous extract of *Anethum graveolens* leaves on seizure induced by pentylenetetrazole in mice,” *Malaysian Journal of Medical Sciences*, vol. 20, no. 5, pp. 23–30, 2013.
- [328] M. M. Masadeh, A. S. Alkofahi, K. H. Alzoubi, H. N. Tumah, and K. Bani-Hani, “Anti-*Helicobacter pylori* activity of some Jordanian medicinal plants,” *Pharmaceutical Biology*, vol. 52, no. 5, pp. 566–569, 2014.
- [329] M. Monsefi, M. Zahmati, M. Masoudi, and K. Javidnia, “Effects of *Anethum graveolens* L. on fertility in male rats,” *The European Journal of Contraception and Reproductive Health Care*, vol. 16, no. 6, pp. 488–497, 2011.
- [330] B. B. Panda, K. Gaur, M. L. Kori et al., “Anti-inflammatory and analgesic activity of *Jatropha gossypifolia* in experimental animal models,” *Global Journal of Pharmacology*, vol. 3, no. 1, pp. 1–5, 2009.
- [331] P. Lo Cantore, N. S. Iacobellis, A. De Marco, F. Capasso, and F. Senatore, “Antibacterial activity of *Coriandrum sativum* L. and *Foeniculum vulgare* Miller var. *vulgare* (miller) essential oils,” *Journal of Agricultural and Food Chemistry*, vol. 52, no. 26, pp. 7862–7866, 2004.
- [332] C. U. Rajeshwari, S. Siri, and B. Andallu, “Antioxidant and antiarthritic potential of coriander (*Coriandrum sativum* L.) leaves,” *Clinical Nutrition Espen*, vol. 7, no. 6, pp. 223–228, 2012.
- [333] F. Silva, S. Ferreira, A. Duarte, D. I. Mendona, and F. C. Domingues, “Antifungal activity of *Coriandrum sativum* essential oil, its mode of action against *Candida* species and potential synergism with amphotericin B,” *Phytomedicine*, vol. 19, no. 1, pp. 42–47, 2011.
- [334] A. Aissaoui, S. Zizi, Z. H. Israili, and B. Lyoussi, “Hypoglycemic and hypolipidemic effects of *Coriandrum sativum* L. in Meriones shawi rats,” *Journal of Ethnopharmacology*, vol. 137, no. 1, pp. 652–661, 2011.
- [335] K. E. Campos, A. P. C. Balbi, and M. J. Q. D. F. Alves, “Diuretic and hipotensive activity of aqueous extract of parsley seeds (*Petroselinum sativum* Hoffm.) in rats,” *Revista Brasileira de Farmacognosia*, vol. 19, no. 1, pp. 41–45, 2009.
- [336] A. L. Gindri, M. Silva, M. B. Marchi, L. S. Brum, M. L. Athayde, and S. C. S. M. Hoelze, “Análise fitoquímica das cascas e do miolo da raiz de *Urena baccifera* (L.) Gaudich (Urticaceae),” *Saúde*, vol. 36, no. 2, pp. 63–70, 2010.
- [337] B. Badilla, G. Mora, A. J. Lapa, and J. A. S. Emim, “Anti-inflammatory activity of *Urena baccifera* (Urticaceae) in Sprague-Dawley rats,” *Revista de Biología Tropical*, vol. 47, no. 3, pp. 365–371, 1999.
- [338] F. Calzada, R. Arista, and H. Pérez, “Effect of plants used in Mexico to treat gastrointestinal disorders on charcoal-gum acacia-induced hyperperistalsis in rats,” *Journal of Ethnopharmacology*, vol. 128, no. 1, pp. 49–51, 2010.
- [339] J. Rojas, H. Solís, and O. Palacios, “Evaluación in vitro de la actividad anti *Trypanosoma cruzi* de aceites esenciales de diez plantas medicinales,” *Anales de la Facultad de Medicina*, vol. 71, no. 3, pp. 161–165, 2010.
- [340] T. V. Parodi, A. P. de Castagna Vargas, C. Krewer et al., “Chemical Composition and Antibacterial Activity of *Aloysia triphylla* (L’Hérit) Britton Extracts Obtained by Pressurized CO<sub>2</sub> Extraction,” *Brazilian Archives of Biology and Technology*, vol. 56, no. 2, pp. 283–292, 2013.
- [341] H. Ponce-Monter, E. Fernández-Martínez, M. I. Ortiz et al., “Spasmolytic and anti-inflammatory effects of *Aloysia triphylla* and citral, in vitro and in vivo studies,” *Journal of Smooth Muscle Research*, vol. 46, no. 6, pp. 309–319, 2010.
- [342] J. G. M. Costa, E. O. Sousa, F. F. G. Rodrigues, S. G. de Lima, and R. Braz-Filho, “Composição química e avaliação das atividades antibacteriana e de toxicidade dos óleos essenciais de *Lantana camara* L. e *Lantana* sp,” *Revista Brasileira de Farmacognosia*, vol. 19, no. 3, pp. 710–714, 2008.
- [343] B. Mahdi-Pour, S. L. Jothy, L. Y. Latha, Y. Chen, and S. Sasidharan, “Antioxidant activity of methanol extracts of different parts of *Lantana camara*,” *Asian Pacific Journal of Tropical Biomedicine*, vol. 2, no. 12, pp. 960–965, 2012.
- [344] I. Kazmi, M. Afzal, B. Ali, Z. A. Damanhour, A. Ahmaol, and F. Anwar, “Anxiolytic potential of ursolic acid derivative-a stearyl

- glucoside isolated from *Lantana camara* L. (verbanaceae),” *Asian Pacific Journal of Tropical Medicine*, vol. 6, no. 6, pp. 433–437, 2013.
- [345] J. M. Barbosa-Filho, K. C. P. Medeiros, M. F. F. M. Diniz et al., “Natural products inhibitors of the enzyme acetylcholinesterase,” *Revista Brasileira de Farmacognosia*, vol. 16, no. 2, pp. 258–285, 2006.
- [346] M. A. Blanco, G. A. Colareda, C. Van Baren, A. L. Bandoni, J. Ringuet, and A. E. Consolini, “Antispasmodic effects and composition of the essential oils from two South American chemotypes of *Lippia alba*,” *Journal of Ethnopharmacology*, vol. 149, no. 3, pp. 803–809, 2013.
- [347] V. Y. Hatano, A. S. Torricelli, A. C. C. Giassi, L. A. Coslope, and M. B. Viana, “Anxiolytic effects of repeated treatment with an essential oil from *Lippia alba* and (R)-(-)-carvone in the elevated T-maze,” *Brazilian Journal of Medical and Biological Research*, vol. 45, no. 3, pp. 238–243, 2012.
- [348] D. G. Sousa, S. D. G. Sousa, R. E. R. Silva et al., “Essential oil of *Lippia alba* and its main constituent citral block the excitability of rat sciatic nerves,” *Brazilian Journal of Medical and Biological Research*, vol. 48, no. 8, pp. 697–702, 2015.
- [349] V. C. N. Bitu, H. D. T. F. Fecundo, J. G. M. Costa et al., “Chemical composition of the essential oil of *Lippia gracilis* Schauer leaves and its potential as modulator of bacterial resistance,” *Natural Product Research (Formerly Natural Product Letters)*, vol. 28, no. 6, pp. 399–402, 2014.
- [350] R. P. C. Ferraz, D. S. Bomfim, N. C. Carvalho et al., “Cytotoxic effect of leaf essential oil of *Lippia gracilis* Schauer (Verbenaceae),” *Phytomedicine*, vol. 20, no. 7, pp. 615–621, 2013.
- [351] K. R. Riella, R. R. Marinho, J. S. Santos et al., “Anti-inflammatory and cicatrizing activities of thymol, a monoterpene of the essential oil from *Lippia gracilis*, in rodents,” *Journal of Ethnopharmacology*, vol. 143, no. 2, pp. 656–663, 2012.
- [352] S. L. Gerlach, R. Rathinakumar, G. Chakravarty et al., “Anti-cancer and chemosensitizing abilities of cycloviolacin O<sub>2</sub> from *Viola odorata* and psyle cyclotides from *Psychotria leptothyrsa*,” *Peptide Science*, vol. 94, no. 5, pp. 617–625, 2010.
- [353] M. Akhbari, H. Batooli, and F. J. Kashi, “Composition of essential oil and biological activity of extracts of *Viola odorata* L. from central Iran,” *Natural Product Research (Formerly Natural Product Letters)*, vol. 26, no. 9, pp. 802–809, 2012.
- [354] M. Zarrabi, R. Dalirfardouei, Z. Sepehrizade, and R. K. Kerman-shahi, “Comparison of the antimicrobial effects of semipurified cyclotides from Iranian *Viola odorata* against some of plant and human pathogenic bacteria,” *Journal of Applied Microbiology*, vol. 115, no. 2, pp. 367–375, 2013.
- [355] H. S. Siddiqi, M. H. Mehmood, N. U. Rehman, and A. H. Gilani, “Studies on the antihypertensive and antidyslipidemic activities of *Viola odorata* leaves extract,” *Lipids in Health and Disease*, vol. 11, no. 6, pp. 1–12, 2012.
- [356] F. F. Barcelos, M. L. Oliveira, N. P. B. Giovaninni et al., “Estudo químico e da atividade biológica cardiovascular do óleo essencial de folhas de *Alpinia zerumbet* (Pers.) B. L. Burtt & R. M. Sm. em ratos,” *Revista Brasileira de Plantas Mediciniais*, vol. 12, no. 1, pp. 48–56, 2010.
- [357] F. A. Emiliano, “Efeito vasodilatador do extrato hidroalcolóico da *Alpinia zerumbet* (Pers.) Burtt e Smith no leito vascular mesentérico,” in *Dissertação*, Departamento de Fisiopatologia Clínica e Experimental, Universidade Estadual do Rio de Janeiro, 2002.
- [358] J. Chompoo, A. Upadhyay, M. Fukuta, and S. Tawata, “Effect of *Alpinia zerumbet* components on antioxidant and skin diseases-related enzymes,” *BMC Complementary and Alternative Medicine*, vol. 12, no. 106, pp. 1–9, 2012.
- [359] H. B. Beal, “Atividade antioxidante e identificação dos ácidos fenólicos do gengibre (*Zingiber officinale* Roscoe),” in *Dissertação*, Centro de Ciências Agrárias, 2006.
- [360] U. Bhandari, R. Kanojia, and K. K. Pillai, “Effect of ethanolic extract of *Zingiber officinale* on dyslipidaemia in diabetic rats,” *Journal of Ethnopharmacology*, vol. 97, no. 2, pp. 227–230, 2005.
- [361] J.-F. T. K. Akoachere, R. N. Ndip, E. B. Chenwi, L. M. Ndip, T. E. Njock, and D. N. Anong, “Antibacterial effect of *Zingiber officinale* and *Garcinia kola* on respiratory tract pathogens,” *East African Medical Journal*, vol. 79, no. 11, pp. 588–592, 2002.
- [362] P. Kamtchouing, G. Y. M. Fandio, T. Dimo, and H. B. Jatsa, “Evaluation of androgenic activity of *Zingiber officinale* and *Pentadiplandra brazzeana* in male rats,” *Asian Journal of Andrology*, vol. 4, no. 4, pp. 299–301, 2002.
- [363] J. Sarris, “Herbal medicines in the treatment of psychiatric disorders: a systematic review,” *Phytotherapy Research*, vol. 21, no. 8, pp. 703–716, 2007.
- [364] J. Sarris, A. Panossian, I. Schweitzer, C. Stough, and A. Scholey, “Herbal medicine for depression, anxiety and insomnia: a review of psychopharmacology and clinical evidence,” *European Neuropsychopharmacology*, vol. 21, no. 12, pp. 841–860, 2011.
- [365] T. S. Anekonda and P. H. Reddy, “Can herbs provide a new generation of drugs for treating Alzheimer’s disease?” *Brain Research Reviews*, vol. 50, no. 2, pp. 361–376, 2005.
- [366] A. Dey, R. Bhattacharya, A. Mukherjee, and D. K. Pandey, “Natural products against Alzheimer’s disease: Pharmacotherapeutics and biotechnological interventions,” *Biothechnology Advances*, vol. 35, pp. 178–216, 2017.
- [367] W. Mota, M. Barros, P. Cunha et al., “Avaliação da inibição da acetilcolinesterase por extratos de plantas medicinais,” *Revista Brasileira de Plantas Mediciniais*, vol. 14, no. 4, pp. 624–628, 2012.
- [368] R. B. Carvalho, A. A. Almeida, R. M. Freitas et al., “Composição química e atividade anticolinesterásica de uma fração ativa do extrato de folhas de *Citrus limon* (L.) Burm,” *Química Nova*, vol. 36, no. 9, pp. 1375–1379, 2013.
- [369] M. T. S. Trevisan, F. V. V. Macedo, M. V. Meent, I. K. Rhee, and R. Verpoorte, “Seleção de plantas com atividade anticolinesterase para tratamento da doença de Alzheimer,” *Química Nova*, vol. 26, no. 3, pp. 301–304, 2003.
- [370] E. Rodrigues, B. Gianfratti, R. Tabach, G. Negri, and F. R. Mendes, “Preliminary investigation of the central nervous system effects of ‘Tira-capeta’ (Removing the Devil), a cigarette used by some Quilombolas living in pantanal wetlands of Brazil,” *Phytotherapy Research*, vol. 22, no. 9, pp. 1248–1255, 2008.
- [371] M. Giorgetti, G. Negri, and E. Rodrigues, “Brazilian plants with possible action on the central nervous system—A study of historical sources from the 16th to 19th century,” *Journal of Ethnopharmacology*, vol. 109, no. 2, pp. 338–347, 2007.
- [372] R. D. Otsuka, J. H. G. Lago, L. Rossi, J. C. F. Galduróz, and E. Rodrigues, “Psychoactive plants described in a Brazilian literary work and their chemical compounds,” *Central Nervous System Agents in Medicinal Chemistry*, vol. 10, no. 3, pp. 218–237, 2010.
- [373] S. Akhondzadeh and S. H. Abbasi, “Herbal medicine In the treatment of Alzheimer’s disease,” *American Journal of Alzheimer’s Disease & Other Dementias*, vol. 21, no. 2, pp. 113–118, 2006.
- [374] J. Barnes, “Cognitive Deficiency and dementia,” *The Pharmaceutical Journal*, vol. 269, pp. 160–162, 2002.

- [375] P. J. Houghton and M.-J. Howes, "Natural Products and Derivates affecting Neurotransmission relevant to Alzheimer's e Parkinson's disease," *Neurosignals*, vol. 14, no. 1, pp. 6–22, 2005.
- [376] M. Ekor, "The growing use of herbal medicines: issues relating to adverse reactions and challenges in monitoring safety," *Frontiers in Pharmacology*, vol. 4, pp. 1–10, 2014.
- [377] D. P. Veloso, P. Guidini, R. M. Comério, and A. G. Silva, "Plantas utilizadas em fitomedicamentos pra os distúrbios do sono," *Natureza on Line*, vol. 6, no. 1, pp. 29–35, 2008.
- [378] C. V. Romanini, M. W. Machado, M. W. Biavatti, and M. W. Rúbia, "Avaliação da atividade ansiolítica e antidepressiva do extrato fluido e fração aquosa de folhas de *Passiflora alata* Curtis em camundongos," *Acta Scientiarum Health Sciences*, vol. 26, no. 2, pp. 159–164, 2006.
- [379] M. C. Pasa, J. J. Soares, and G. Guarim Neto, "Estudo etnobotânico na comunidade de Conceição-Açu (alto da bacia do rio Aricá Açu, MT, Brasil)," *Acta Botanica Brasilica*, vol. 19, no. 2, pp. 195–207, 2005.
- [380] S. E. G. A. Vandrúscolo and L. Mentz, "Levantamento etnobotânico das plantas utilizadas como medicinais por moradores do bairro Ponta Grossa, Porto Alegre, Rio Grande do Sul, Brasil," *Iheringia Série Botânica*, vol. 61, no. 1-2, pp. 83–103, 2006.
- [381] C. S. P. Silva and C. E. B. Proença, "Uso e disponibilidade de recursos medicinais no município de Ouro Verde de Goiás, GO, Brasil," *Acta Botanica Brasilica*, vol. 22, no. 2, pp. 481–492, 2008.
- [382] F. Leitão, V. S. Da Fonseca-Kruel, I. M. Silva, and F. Reinert, "Urban ethnobotany in Petrópolis and Nova Friburgo (Rio de Janeiro, Brazil)," *Revista Brasileira de Farmacognosia*, vol. 19, no. 1 B, pp. 333–342, 2009.
- [383] M. C. Amorozo, "Uso e diversidade de plantas medicinais em Santo Antonio do Leverger, MT, Brasil," *Acta Botanica Brasilica*, vol. 16, no. 2, pp. 189–203, 2002.
- [384] Z. V. Pereira, R. M. Mussury, A. B. de Almeida, and A. Sangalli, "Medicinal plants used by Ponta Porã community, Mato Grosso do Sul State," *Acta Scientiarum - Biological Sciences*, vol. 31, no. 3, pp. 293–299, 2009.
- [385] A. R. Alves and M. J. Silva, "The use of phytotherapy in the care of children up to 5 years of age in urban and suburban areas of São Paulo city-brazil," *Revista da Escola de Enfermagem da USP*, vol. 37, no. 4, pp. 85–91, 2003.
- [386] T. Ceolin, R. M. Heck, R. L. Barbieri, E. Schwartz, R. M. Muniz, and C. N. Pillon, "Plantas medicinais: transmissão do conhecimento nas famílias de agricultores de base ecológica no Sul do RS," *Revista da Escola de Enfermagem da USP*, vol. 45, no. 1, pp. 47–54, 2011.