

TRADITIONAL KNOWLEDGE APPROACH AT SAPB/LIPAT/ FF/UFRJ INTERSECTORIAL PROJECT



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ABSTRACT

The present article describes historic evolution conception process of an intercultural medicinal plant garden as a tool to construct social ecoperception about environmental health and cultural diversity, which culminance resulted in improvement of social technology. Through case study methodology, it reports briefly the process since 2008 up to 2024. Results also show multi, inter and transdisciplinary effective activities and peer viewed communications about primary care attention to originary and ethnic groups, collectives and, mainly, to environmental recovery. Intercultural medicinal plant garden construction process provided equity to applied intercultural, interethnical and indigenous knowledge, then registered as an "open-air" intercultural plant collection (a "plant library"), improving humanities as respect, ethic, integrated citizenship, besides the learning to coexist with complexity, singularity, autonomy and self-direction. So, as qualitative evaluation, it was considered there was improved mental health promotion to this urban ethnic members and indigenous in this period (2008 – 2024) through sociocultural technology by this intersectoral

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project, named Environmental Health, Bioethic and Parasitology, from Immuneparasitology and Toxicological Analysis Laboratory of Faculty of Pharmacy from Federal University of Rio de Janeiro/Brazil and all of its institutional partners.

Keywords: Bioethic. Cultural Valorization. Environmental Health. Intercultural Medicinal Plant Garden. Traditional Knowledge.



INTRODUCTION

BACKGROUND

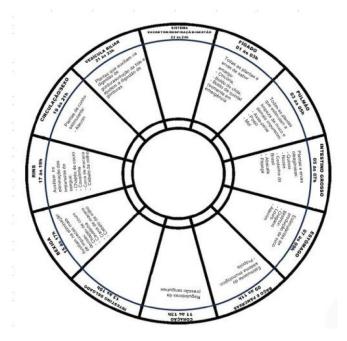
Since 1994, the group of researchers has been investigating the plant species known in Brazil as Aveloz, or Firestick plant (*Euphorbia tirucalli* L.) from the pharmacotechnical preparation Hahnemannian method up till plant raw extracts (Poses et al., 1995; Apolinário et al., 2000; Gomes et al. 2023; 2024; Nagamatsu et al. 2024) investigating its effect as a phyto-adaptogens to patient at several illness (Varricchio et al, 2006).

Due to the variation in detection of plant chemical classes around the world, specially seasonality-related, exhibiting a wide variety in the spectrum of pharmacological actions, this species, whose genus is defined chemotaxonomically as a latex producer, the literature review showed a varied spectrum of biological actions according to its geographic distribution and soil and climate conditions - Geopharmacognosy. This characteristic was repeated during research in plant biotechnology through ethnobotanical records and *in vitro* cultures. Subsequently, after successful acclimatization of micropropagated explants, despite the complexity involved in the process due to it being a toxic plant, cultivation in pots became of greater interest to our research objectives (Nunes et al., 2010; Varricchio, 2017; Delaunay et al., 2019).

And, based on the ethnobotanical records, feedback tasks in bioethics were carried out through three multicultural gardens planned together with the intersectoral partners of the Environmental Health, Bioethic, Parasitology Project from Immuneparasitology and Toxicology Analyses Laboratory of Pharmacy Faculty from Federal University of Rio de Janeiro/Brazil and Partners (SAPB-LIPAT/FF/UFRJ Project: Garden of UFRJ, 2008; Saint Francis Farm and 4x4 Apiarium, 2012; Pakistanese plant horticultural from Humanity First, 2017) as shown in Figure 1 (Varricchio & Lage, 2020):



Figure 1: Chinese horary correlated plant garden to human body.



Source: Adapted from Varricchio & Lage (2020).

AIM

To describe historically the steps taken in education for sustainability, through the use of plants for environmental health as a primary health care strategy to promote valorization and simetry of some of the cultures presents in Brazil.

METHODOLOGY

This is a Case Study with a qualitative approach, with the aim of promoting sustainability in environmental health. The Case Study is a type of research that consists of the systematic and detailed analysis of an individual or collective case, to investigate the phenomenon (object) of interest. It was initially proposed for psychotherapeutic research, but its use has been expanded to several areas of knowledge, with important phenomenological investigative potential (Ventura, 2007). The authors describe the team's trajectory in the evolution and deepening of knowledge about plant species for environmental preservation and recovery, among others, highlighting the educational stages that enhance the scientific investigations developed in this theme.



RESULTS

Indeed, Environmental Health, Bioethic, Parasitology Project was founded through Brazilian ethnic institutions such as Associação Indígena Aldeia Maracanã representant multhethinic chief, the leader of União Cigana do Brasil, a representative of black knowledge, by a professor at the Academy of Innovation, Protection and Development of the National Institute of Industrial Property and by a veterinarian, based on the concept of One Health to carry out the work of Environmental Health Education to our students, having received veterinarians from the epidemiological surveillance of the state of Rio de Janeiro, an engineer from EMATER, professors and researchers in public health and collective health (Varricchio & Lage, 2020).

Aiming devolutive procedures in Bioethic to human beings, LAFFH Multidisciplinary League of /UNIFASE-FMP had also cooperated with our research group from SAPB-LIPAT PROJECT, providing visibility, self-direction and sensibilization to environmental ethic. As health professionals we made health promotion and preventive primary attention measures through both: conventional medicine orientations (Unic System of Health - SUS – demanded interventions) and studies of traditional/originary/ethno medicines to develop comprehensionship about their cosmoviosions (Varricchio & Lage, 2020).

To originary indigenous people, to romani groups and to black collectives present at urban context at Rio de Janeiro/Brazil, there was made an investigation of virtual informal market to their specific cultural products to promote financial autonomy (Varricchio & Lage, 2020; Machado, C./Duigó-TUKANO et al., 2021) as showed at the image booklet below (Figure 2):



Figure 2: Economic aspects of Traditional Knowledge Brazilian groups.



To prevent food and nutrition risk of vulnerability, social assistant Caroline Machado/Duigó-TUKANO learnt to make cultives with natural products assays, investigated biotechnological potential of natural products to seeds conservation (Varricchio & Lage, 2020; Machado, C./Duigó-TUKANO et al., 2021). During pandemics Covid19, hope, solidariety were spread and also citizenship was maintained through intercultural participation constructing Covid19 booklets (Vacite et al., 2023).

After dealing, longing years since 2008, with these social determinants and social markers, it was developed urban ethnodevelopment, according to their habits and cosmovisions and to social technology as explained by Winter (2018). So, all these stages of work were presented to WIPO & Inovation, Protection, Development INPI Academy & UFRJ (Varricchio et al.; 2022; Cler & Varricchio, 2023; Vacite et al., 2023; Gomes et al., 2023).

DISCUSSION

As exhibited, this work walked around, since from bioethic academic devolutions up till psychossocial attention qualitative ethnographic research, when novel aspects were focused to mental health promotion: anamnesis and singularity of originary and ethnic people, care, cultural competence at Studies of Aging Process (PROVE) Lab partnership (Varricchio; Lage, 2020; Tavares; Gerolis, 2019; Varricchio et al.; 2022; Varricchio, 2023).

Meanwhile, Traditional Medicine Department of Brazilian Federation of Homeopathy, a research institution had provided simetry to representants and leaders at urban context in Rio de Janeiro. So, teachers from Ethnicities and from Originary People, authorized by their chiefs gave classes to construct our understanding to transform anamnesis in a better way of professional perception and qualitative modalization of symptoms and signals (Tavares; Gerolis, 2019; Varricchio & Lage, 2020; Varricchio, 2023; De Souza/XAVANTE et al., 2024, a).

Looking at Health (Wasim et al., 2023; Hansel-Martins et al. 2024) and to Agrary Aspects including Environmental Recovering (Gaspar et al., 2024), Traditional Medicine Department of Brazilian Federation of Homeopathy besides Benoit Mure Nucleus (Gomes et al., 2024a) have left a local legacy to them:

-Traditional Social Cultural Environmental Technologies:

Practical examples that are being used or that have the potential to be incorporated into the urban environment, such as sustainability practices, use of



natural resources, and solutions to social issues (Varricchio & Lage, 2020; Machado, C./Duigó-TUKANO et al., 2021).

- Use of natural resources:

Coivara method of planting (Varricchio & Lage, 2020); Bean cultivation and reduction of vulnerability and food risk (Delaunay de Souza et al. 2023, a).

-Sustainability practices:

Use of plants for environmental cleaning - Phytoremediation (Kathar et al., 2023; Gaspar et al., 2023, a; 2024).

-Search for solutions to social issues:

So, it was affirmed Intercultural Education (Gonçalves et al., 2019 *In* Cler & Varricchio, 2023).

- Contributions to sustainable local circular development:

 Investigation of plastic digestor potential (Delaunay de Souza et al. 2023).
- Traditional environmental practices:

How they (indigenous, ethnic and collectives people) promote sustainable use of resources and as it can serve to us as models for ecological and social development (Varricchio & Lage, 2020; Hansel-Martins et al., 2024).

- Relationship between environmental sustainability and social justice:
 These relationship among sociocultural values were approached from an environmental preservation perspective (Varricchio & Lage, 2020; Cler & Varricchio, 2023; Vacite et al., 2023; De Almeida/TUKANO et al., 2024).
- Integration of traditional knowledge with urban technological innovation:
 It was a demand not only from traditional people, but a way of integration which can help many other places as locals solutions (Delaunay de Souza et al. 2023, a; De Almeida et al., 2024).
- The role of ancestral knowledge in creating innovative solutions to urban occidental challenges:

At Homeopathy Service, 7^a Ward of SCMH-RJ/Brazil, it was cooperately and voluntarily planned a fourth garden: "The Intercultural Garden an Open air Library (2021)" registered in the video "Revisiting Ethnic Cultural Space of Health Project: The Garden of Everywhere - and Everybody...

(https://sites.google.com/view/lipat/sapb?authuser=0#h.wyxxyzwtrzxa).



So, there were many contributions from traditional knowledge, specially to our group we can point: Black People with their types of bean cultives and healing wounds plants; Originary People and Seeds to indigenous artesanal products; Romani People and the economic use of raw latex of *Euphorbia tirucalli* to environmental reduction of residuous and efluents, besides the use as rubber and as glue, applied to circular economy (Varricchio et al., 2022; Malfacini et al., 2024).

There is the urgent need of learning the coexistence and to listen different practices such as waste management, urban agriculture and environmental care made from millenary people (Varricchio & Lage, 2020; Delaunay de Souza et al. 2023, De Souza et al. 2024, a).

LIMITATIONS

Although successful, this work is limited by the few number of originary, ethnic and collective people involved, as we dealed mainly with urban context representants and leaders present in the city of Rio de Janeiro/Brazil.

CONTRIBUTIONS

Mental Health Promotion was constructed through association among Cultural Diversity, Sustainability and Social Innovation, in synthesis, when we added Bioethics procedures to Psychossocial Attention primary health care: Visibility; Equity of access; Human Rights/dignity and access to work with financial autonomy and citizen integration; Respect for intellectual property and self-direction generating ethnodevelopment inserted in their worldviews; Well-being and promotion of mental health of indigenous peoples and traditional ethnic groups in an urban context in Rio de Janeiro.

Through Ethnobothanic, a transversal and intersectorial work with raw natural products non patenteable in Brazil in the third sector (24, 30 – 36) was noticed from first sector (Industry) by Firjan/SENAI to report and to apply Socio-Environmental Technology at it's II Scientific Week which central theme is "Social Technologies: the role of traditional communities at environmental conservation" (2024, oct).

CONCLUSION

Practical experiences of the traditional and originary leaders living in the urban city were performed through SAPB-LIPAT intersectorial project from Pharmacy Faculty of Federal University of Rio de Janeiro. Where they showed how they integrate their ancestral



knowledge into everyday urban life: How the cultural and social practices of these people contribute to collective and individual well-being and the importance of strengthening cultural identity as a way of building a more inclusive and sustainable society.

Their rich contribution upon ethnoknowledge to improve health will be shown in an other paper.



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