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Traditional Healing Practices Involving Psychoactive Plants and the Global Mental Health Agenda: Opportunities, Pitfalls, and Challenges in the "Right to Science" Framework

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Introduction: Global mental health and traditional medicines

The global mental health (GMH) movement aims to establish a world in which every human can access mental health services based on two fundamental principles: respect for human rights and evidence-based treatments. Despite being criticized, especially for its neocolonial tendency to impose psychiatric systems that defy local epistemologies, this movement is garnering increasing attention.[1]

The anti-psychiatry movement led to the first mental health reforms based on human rights, which notably influenced World Health Organization (WHO) policies and the development of ethnopsychiatry. However, despite the vast anthropological literature supporting the importance of traditional health systems for the well-being of local communities, the recognition of traditional medicines and healers is highly marginalized within the GMH agenda.

For example, WHO's Mental Health Action Plan 2013–2020 acknowledges the value of traditional medical systems only subsidiarily, qualifying them as "informal": "Greater collaboration with 'informal' mental health care providers, including families, as well as religious leaders, faith healers, traditional healers, school teachers, police officers and local nongovernmental organizations, is also needed."[2] Similarly, the Lancet Commission on Global Mental Health and Sustainable Development's report mentions traditional healing systems only when stating that "[g]lobal mental health practitioners have shown that integrating understanding of local explanatory models of illness experiences is possible while respecting the complementary role of Western biomedical and local traditional approaches to treatment."[3]

Paradoxically, in most parts of the Global South, traditional healers are more numerous than mental health workers, and they constitute the main health resource that local populations use and believe in. For

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example, in Ghana, with a population of 27 million, there are only 18 psychiatrists, 19 psychologists, 72 community mental health officers, and 1,068 mental health nurses. In contrast, around 45,000 traditional healers are reportedly operating in this country.[4] However, there is a scarcity of institutional documents and international GMH proposals that consider investing in traditional medical practices and research.

In today's globalized world, a large diversity of people from a broad range of genetic and cultural backgrounds coexists and travels throughout various territories and countries. Traditional healers conduct ceremonies in Western countries, and Westerners travel into indigenous territories in search of traditional treatments. Thus, different medical systems, backed by their respective epistemologies, coexist. If traditional practices and epistemologies are not properly addressed within the GMH movement and WHO's Mental Health Action Plans, this may pose a challenge to health-related human rights. Among these rights, it is worth noting that everyone has the right to enjoy the highest attainable standard of physical and mental health and the right to enjoy the benefits of scientific progress and its applications.[5] In specific cases where psychoactive plants containing internationally scheduled substances are used for mental health purposes, as is the case with certain South American plants (containing what Western pharmacology considers hallucinogenic compounds), people are vulnerable to possible criminal prosecution. In the case of indigenous peoples for whom those plants are part of their traditional medical systems, the right to access their traditional medicines and to maintain their health practices may also be violated.[6] Thus, this complex scenario produced by contemporary globalization offers some challenges to reflect upon.

Traditional healing practices involving psychoactive plants: Human rights challenges

Worldwide interest in ayahuasca and related traditional Amazonian medical systems is typical of contemporary globalization.[7] Ayahuasca is a highly widespread tool within traditional Amazonian health systems. In 1986, pioneering work that brought together all available ethnographic information on ayahuasca found over 400 bibliographical references, referring to over 70 different Amazonian ethnic groups in which it was traditionally used and over 40 different vernacular names given to the decoction.[8] Today, those figures may represent only a small part of the bigger picture. Ayahuasca is a decoction containing the leaves of the vine *Banisteriopsis caapi*, which is rich in harmaline alkaloids, and of the shrub *Psychotria viridis*, which contains DMT (N,N-dimethyltriptamine), which is a Schedule I substance controlled by the 1971 Convention on Psychotropic Substances. Although ayahuasca itself is not scheduled in the international drug control treaties, its use is prosecuted in many countries, even in the case of indigenous peoples who travel outside their original territories. Ayahuasca became so popular among Westerners as a self-care practice that even psychiatrists and pastoral counselors have called for their colleagues to be ready to discuss spiritual, healing ayahuasca experiences with their clients, despite their epistemological divergence from psychiatry and their ontological divergence from monotheistic religions.[9] Also, ayahuasca's adverse effects are frequently reported in the scientific literature.[10]

An initial epistemological challenge becomes evident here. Both scientific and traditional mental health treatments often involve psychoactive compounds. However, biomedicine views mental disorders as biochemical imbalances that psychoactive drugs might restore; meanwhile, Amazonian medicine views spiritual forces as being at work and psychoactive plants as a means to harmonize the individual with the surrounding spiritual world. This harmonization tries to achieve an alignment between the individual, the community, the ecosystem, and even the geographical territory. The case of ayahuasca is also paradigmatic, as it shares its neurochemical mechanism of action with antidepressants. Whereas in biomedical systems clinical trials are used to demonstrate the safety and efficacy of psychoactive drugs, regarding traditional ethnobotanicals, safety and efficacy are

demonstrated by the long history of use. Although Western countries accept traditional plants as medicines, their safety and efficacy must be proven according to biomedical criteria. This can get really challenging when applied to non-biomedical medical systems with conceptions of safety and efficacy that may not be equivalent.

An important consideration arises here: article 15 of the International Covenant on Economic, Social and Cultural Rights recognizes everyone's right to enjoy the benefits of scientific progress and its applications, and the states parties that signed this covenant agreed to respect the freedom indispensable for scientific research. In practice, these rights are conceived of and applied in the context of Western epistemologies, leaving aside traditional approaches to mental health and related research.

These issues are addressed (although not exclusively within the context of mental health) in the recently adopted General Comment 25 by the United Nations Committee on Economic, Social and Cultural Rights. The general comment states that "[l]ocal, traditional and indigenous knowledge, especially regarding nature, species (flora, fauna, seeds) and their properties, are precious and have an important role to play in the global scientific dialogue" and that "[i]ndigenous peoples and local communities all over the globe should participate in a global intercultural dialogue for scientific progress, as their inputs are precious and science should not be used as an instrument of cultural imposition." Nevertheless, traditional treatments should not be the only option available, and "States parties must guarantee everyone the right to choose or refuse the treatment they want with the full knowledge of the risks and benefits."[11]

The right to science is essential in order to adopt a perspective based on human rights and evidence, since various health-related human rights rely on the right to science, such as everyone's right to enjoy the highest attainable standard of physical and mental health. This is especially relevant, as mentioned above, in the case of indigenous peoples, and even more so in terms of their use of plants with psychoactive properties that are under international control. The *International Guidelines on Human Rights and Drug Policy*, developed by several United Nations agencies, academics, and civil society representatives, echo this problematic, specifying that states should "refrain from depriving indigenous peoples of the right to cultivate and use psychoactive plants that are essential to the overall health and well-being of their communities."[12] Furthermore, General Comment 25 explicitly states that "the prohibition of research on those substances is in principle a limitation of this right."[13] Considering that the general comment defines "science" as encompassing both natural and social sciences, this makes ethnographical research an option, which could be more reliable and feasible than biomedicine as a source of evidence for evaluating traditional medicines involving psychoactive plants.[14] However, the application of non-biomedical methodologies can be challenging since, as the same general comment affirms,

> *knowledge should be considered as science only if it is based on critical inquiry and is open to falsifiability and testability. Knowledge which is based solely on tradition, revelation or authority, without the possible contrast with reason and experience, or which is immune to any falsifiability or intersubjective verification, cannot be considered science.*[15]

The post-colonial and biomedical-oriented aspects of the right to science

Several Western epistemologies—such as psychoanalysis, certain approaches in psychology, and other social sciences (including certain ethnographies within anthropology)—cannot always meet these falsifiability and testability criteria. Although those disciplines and epistemologies are also based on reason, cumulative knowledge, and experience, their ontological assumptions may not fit within the exigencies of scientific methodologies. Even research in biological psychiatry might not always meet the criteria of falsifiability and testability, since it has various flaws. The etiopathogenesis of mental disorders is completely unknown; there is not a single psychopharmacological treatment that offers a cure, and, at best, psychiatric drugs serve

to treat acute symptoms (such as panic attacks and psychotic breakdowns) but over the long term can be ineffective and potentially dangerous. Radical critics of psychiatric drugs consider them to actually be part of the problem regarding the chronicity of mental illnesses, rather than part of the solution.[16] This inefficacy could be partly due to the poor heuristic models of mental illnesses. In sum, science applied to mental health demands that other disciplines and epistemologies meet methodological criteria that psychiatry itself does not always fulfill. A broader framework regarding the assessment of mental health systems should be developed in which different epistemological approaches, including indigenous ones, are considered.

Global mental health, globalization, and plants containing scheduled compounds

Contemporary globalization involves not only the intentional export of scientific mental health systems from the Global North to the Global South. Rather, a new and interesting phenomenon is also occurring whereby traditional medicines are traveling from the Global South to the Global North. Some traditional medicines involving plants that contain psychoactive constituents—such as ayahuasca (containing DMT), San Pedro and peyote (two cacti originally from the Andean region and Mexican deserts, respectively, that contain mescaline), and iboga (a plant from Equatorial Africa containing ibogaine)—are gaining increasing popularity all over the world. Among them, ayahuasca is probably the most popular and widespread.

Ayahuasca has diverse uses among Amazonian cultures, such as in rites of passage from childhood to adulthood, to strengthen community bonds in interethnic festivals, as a sacrament (for example, in Brazilian ayahuasca religions), and even as a spiritual tool to resist neocolonial extractivism.[17] However, ayahuasca is used in Amazonian cultures mainly as a tool for healing, which has been widely documented in the ethnographic literature.[18] Biomedical scientists have also widely studied its neuropharmacology, neuropsychiatric long-term effects, and therapeutic potentials, finding promising results for mental health disorders such as major depression, drug dependence, grief, eating disorders, borderline personality disorders, and post-traumatic stress disorder.[19]

Contrary to what happened with the importation of other psychoactive plants traditionally used in the Americas, such as coca and tobacco, the globalization of ayahuasca has seen its incorporation into ritualistic settings where it is used similarly to how it is used in its original context. These rituals have been conceived of as novel self-care practices.[20] Meanwhile, thousands of Westerners travel to Amazonian regions each year seeking spiritual enlightenment and healing from their physical and psychological conditions. Biomedical researchers are also starting to report the psychological outcomes of traditional ayahuasca practices among Western participants.[21]

This phenomenon suggests that the GMH paradigm could lead to a turning point where, contrary to the assumption that the Western mental health model should and will expand, we are instead witnessing the expansion of traditional forms of healing beyond their native contexts. This is evident in the case of traditionally and ritually used psychoactive plants, especially ayahuasca. The manner in which international drug control conventions have been drafted assumes that traditional cultures will never be capable of expanding their influence to other territories and societies. This has not been the case. Ways of healing previously considered outdated and unscientific are being recognized as highly useful and less costly in terms of adverse effects. Furthermore, Amazonian health systems, based on a world view that appreciates alignment between the individual, the community, the ecosystem, and the geographical territory, may serve as a model for dealing with our mental health crisis that, with the climate emergency and the COVID-19 pandemic, will dramatically increase. Thus, the GMH agenda should start to recognize the immense value of traditional medicines based on psychoactive plants, the ethnographic literature should be used as a legitimate source of evidence regarding safety and efficacy, and research budgets should be allocated for multidisciplinary approaches to study non-in-

stitutionalized traditional medicines, such as ayahuasca healing systems.[22] Furthermore, indigenous epistemologies should be carefully respected because traditional healers are the true experts on the medical use of these sophisticated technologies, and appropriate frameworks should be created in which they are considered legitimate knowledge systems that should be protected not only under the umbrella of cultural rights and the protection of cultural heritage, but also within the frameworks of the right to science and the right to health, in compliance with multiple international treaties and United Nations declarations.

Final remarks

The Western popularization of non-institutionalized, traditional healing systems implies multiple challenges that deserves in-depth reflection. In fact, this is already happening in many parts of Amazonia with ayahuasca, in Mexico with peyote, and in Gabon and Equatorial Guinea with iboga. Biomedical and cultural misappropriation, the over-exploitation of natural resources for commercial purposes, medicinal plant tourism that threatens the viability of local community rituals, and disruptions of egalitarian traditional social systems perverted by economic inequalities are among the challenges faced. These challenges can be overcome only if they are dealt with from a perspective of reciprocity that extends beyond the GMH agenda's narrow recognition of traditional medical systems involving psychoactive plants. It is therefore necessary to invest in indigenous epistemological research and practices in order to truly protect indigenous peoples' right to science, since this right, beyond its concern with science, involves much more complex economic and sociopolitical dimensions.

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