



Naranjo Quintero, V. (2025). Links between uteruses and sugarcane. Socio-environmental ethical challenges for the menstrual health of women in the Global South. *Perseitas*, 13, 648-668. <https://doi.org/10.21501/23461780.5134>

APA Citation for this Article:

LINKS BETWEEN UTERUSES AND SUGARCANE. SOCIO-ENVIRONMENTAL ETHICAL CHALLENGES FOR THE MENSTRUAL HEALTH OF WOMEN IN THE GLOBAL SOUTH

Vínculos entre úteros y caña de azúcar. Desafíos éticos socioambientales para la salud menstrual de las mujeres del sur global

Research Article

DOI: <https://doi.org/10.21501/23461780.5134>

Received: February 20, 2025. Accepted: August 22, 2025. Published: December 17, 2025

*Verónica Naranjo Quintero**

Abstract

This text aims to expose the socio-environmental ethical challenges present in the relationship between women in the Global South and sugarcane, particularly women in the state of Maharashtra, India, and Afro-descendant women from the Colombian Pacific region. In the first case, the relationship with sugarcane—that is, with the nonhuman—occurs under conditions of subalternization, insofar as sugarcane is understood as a raw material within the agro-industrial production of sugar, which involves the use of agrochemicals. This has led to forced

* Doctoral candidate in Gender Studies at the University of Oviedo, Oviedo, Spain. Master's degree in Bioethics from Universidad Pontificia Bolivariana, Medellín, Colombia. Member of the research group HEAL: Health, Environment, Art, and Literature. ORCID: <https://orcid.org/0000-0002-9371-1009>. Email: vernaqui@gmail.com, uo296342@uniovi.es



OPEN ACCESS

Perseitas | Vol. 13 | pp. 648-668 | 2025 | ISSN (En línea): 2346-1780 | Medellín-Colombia

hysterectomies. In the second case, Afro-Colombian women use this plant as a companion and as an ancestral medicine for managing menstrual pain. From this, I examine the ambivalences between woman–uterus–sugarcane–pain–menstruation, with the aim of demonstrating the need for an ecocritical analysis grounded in the medical humanities and decolonial intersectional feminism. To this end, the article proposes an approach to the tensions between these two transnational and transcultural contexts, concluding that the relationship of care between women and sugarcane is essential, as is the pursuit of just actions within this network of relationships between menstruating bodies and the nonhuman.

Keywords

Sugarcane; Pain; Menstruation; Women; Global South; Uteruses.

Resumen

Este texto busca exponer los desafíos éticos socioambientales presentes en la relación de las mujeres del sur global con la caña de azúcar, en especial las mujeres del estado de Maharashtra, en la India, y las mujeres afrodescendientes del Pacífico colombiano. En el primer caso, la relación con la caña —es decir, con lo no humano— ocurre de manera subalternizada, en tanto la caña es entendida como materia prima de la producción agroindustrial de azúcar que implica el uso de agrotóxicos, lo que ha dado lugar a histerectomías forzosas. En el segundo caso, las mujeres afrocolombianas emplean esta planta como compañera y como medicina ancestral para el manejo del dolor menstrual. De allí que me pregunte por estas ambivalencias entre mujer–útero–caña de azúcar–dolormenstruación, con el fin de mostrar la necesidad de un análisis ecocrítico desde las humanidades médicas y el feminismo interseccional decolonial. Para ello, se propone un acercamiento a la fricción entre estos dos contextos transnacionales y transculturales, a partir de lo cual se concluye que es importante la relación de cuidado entre mujer y caña, así como la búsqueda de acciones justas para esta red de relaciones entre los cuerpos que menstruamos y lo no humano.

Palabras clave

Caña de azúcar, Dolor, Menstruación, Mujer, Sur global, Úteros.

Entanglements of Pain among Uteruses, Sugarcane, and the River

Today, feminist studies call for moving beyond the initial steps taken by women in Europe and later in the United States during the first half of the twentieth century—white women who were subsequently criticized for thinking solely from within their own privilege. This critical and revisionist perspective began to take shape in 1989, when Kimberlé Crenshaw first introduced the concept of intersectionality as an approach that makes it possible to examine inequalities derived from gender and race in the specific case of African American working women.

Subsequently, intersectionality became an analytical tool that allows for understanding how social differences—shaped by power relations and access to opportunities—cut across individuals' lived experiences. In other words,

intersectionality among race, class, gender, and sexuality seeks to understand the troubling indifference shown by men toward the systematic violence inflicted upon women of color, that is, non-white women who are victims of the coloniality of power and, inseparably, the coloniality of gender. (Lugones, 2008, p. 73)

It is precisely from this critique of coloniality that this text is situated, with the aim of exposing the situation experienced by women in the state of Maharashtra¹, India, and the hysterectomies to which they are subjected. This constitutes a form of structural violence based on gender and class-caste—a triad of oppression that has led to one hundred thousand women in this region losing their uteruses due to forced hysterectomies² (DW Documentary, 2022a)³, presented as the only path and method to relieve severe abdominal pain, heavy bleeding, and headaches. As a result, many women are compelled to undergo

¹ Maharashtra is one of the states of India, and its proximity to the capital makes it a region of significant economic activity; however, social inequality is stark. Its ethnic and religious diversity also makes it a place marked by profound ideological differences.

² This text presents the situation of women in India based on a documentary. Nevertheless, it does not overlook that other scholarly sources have addressed this issue, such as Acharya (2017); Chatterjee (2019); Martínez Gandolfi and Rodríguez (2022); McGivering (2013); and Sardeshpande (2014).

³ For a more comprehensive understanding of the issue addressed here, see *Forced hysterectomies in India* (DW Documentary, 2022b).

costly and unnecessary surgeries that, following the loss of the uterus, entail serious consequences such as early menopause, physical debilitation, and inability to work, with an average age of only 34 years.

They are sugarcane cutters and pay a very high price for being socially productive: they become disempowered⁴, as they lose their autonomy by going into debt in order to fulfill the patriarchal ideal according to which they will be more useful if they cease to have menstruating bodies. This can be understood as the product of neoliberal and neocolonial logics that reproduce structures of injustice and prioritize mass production, neglecting ethical responsibility toward minorities who subsist under precarious conditions and work merely to survive. In this regard, it is worth asking how women in India must and can resist this violence imposed on their bodies, especially given that the colonial gaze—where “white men save brown women from brown men” (Bidaseca et al., 2021, p. 249)—is no longer tenable.

It is important to underscore this point because, when reflecting on an issue of such ethical magnitude, one might overlook that the problem is even broader. For this reason, intersectionality helps identify that sexuality and gender are central, since this occurs precisely because these are bodies with uteruses. Furthermore, in this case, racialization based on caste—Dalit women, the most marginalized group in India—renders them invisible. However, through the analysis of these inequalities, decolonial theories warn that neocolonialism operates forcefully, seeking to exert its influence through mercantilism and productivism in developing countries.

This raises a question about the bodies of these women, who experience constant pain, whether or not they retain their uteruses, recognizing that this organ neither condemns nor saves them, but rather constitutes one element within a more complex network of relationships. From an ecofeminist and critical perspective (Puleo, 2017), neocolonialism is embedded in all the relationships that emerge within this problematic field—that is, in women, their pain, sugarcane, and the river.

⁴ These women, as well as their families, are severely affected by the debts incurred to pay for the surgery. This results in a loss of autonomy and leads them to undergo procedures that do not always alleviate their pain.

This entire ecology is affected by the imposition of capitalism, such that intersectionality traverses all these beings (human and nonhuman alike), rendering them impoverished and degraded.

In the case of women, they “suffer due to their subordinate position within the prevailing system [which] places them in greater vulnerability and exposure to processes of [economic] impoverishment compared to men” (Bidaseca et al., 2021, p. 277). Sugarcane and the river also endure suffering, as they have been exploited and subjected to attempts at colonization, denying their right to exist by transforming them into resources—an act that also affects other bodies. In this context, pollution, pain, and the impoverishment of the territory are linked to the agrochemicals used in sugarcane cultivation, which ultimately end up in rivers. It is also pertinent to consider Gómez-Barris (2017/2021), who notes: “Over the course of five centuries, hundreds of thousands of women and children have worked as carriers, recycling the toxic materials of mining extraction” (p. 182).

This recalls what Ochy Curiel (2007) emphasized regarding the need to recover the voices of women silenced for centuries, so that, through such recognition, their histories can be reclaimed and re-signified. In this regard, Espinosa Miñoso (2022), referring to Curiel's idea, argues that it has been essential to understand the “contemporary forms of colonialism” (p. 40) as modes of domination that reflect the coloniality of power, which ignores the rhizomatic network established by sugarcane as it connects with river waters and with the bodies of women sugarcane cutters. As Haraway (2003/2016) would put it, these are “companion species” (p. 10)—that is, sugarcane–woman–river become a single entangled assemblage. In this way, the sugar industry and neoliberal commodification lead to the commodification of their pain, which is already a multispecies pain, not exclusively that of women.

This relationship among companion beings generates a shared experience of pain (Piedade, 2017/2021): women feel their own pain as well as the pain of the river, and vice versa. Furthermore, when referring “to macrosocial phenomena that interrogate the ways in which systems of power are implicated in the production, organization, and maintenance of inequalities ...

[which we will call] interlocking systems of oppression” (Viveros Vigoya, 2016, p. 6), it becomes evident that such oppressive systems are also experienced by women in India, through the medical and corporate monopoly, as well as by the companion species with which they establish relationships⁵. Consequently, I seek to articulate a meaningful and shared relationship between the pain of the nonhuman and that of women, grounded in a decolonial feminist epistemology that departs from a dualistic framework. Rather, it is based on a situated experience that is shared and constituted within the interconnected environment of woman, uterus, sugarcane, and river. In this sense, Viveros Vigoya’s (2016) contribution helps expand these discussions by identifying systems of power, as I continue to situate them within this context.

Out of fear, these women seek medical attention and, often without thorough examination, are subjected to surgery upon being diagnosed with uterine fibroids, endometriosis, uterine prolapse, or other conditions affecting the uterus and surrounding organs that cause them pain. In this way, they become trapped, as they must borrow money from their employers to pay physicians, thereby ensuring that the benefits remain once again in the hands of men—clearly illustrating the feminization of poverty. This commodification of pain does not alleviate it; on the contrary, it exacerbates it, since the “ovaries, which supply oxygen to the body, are essential for bone health, the cardiovascular system, and also for mental health” (DW, 2022b, 25:00).

Faced with this complex socio-environmental problem, Gómez-Barris (2017/2021) argues the following:

Therefore, by using the lenses of Indigenous feminisms—an analysis that does not conform to European systems of gender and sex—we can deepen our understanding of how the mining [sugar] industry operates, its demand for racialized and gendered labor in the extractive zone, as well as its genealogies of resistance. (p. 181)

In this regard, the following question arises: how can resistance be mobilized so that the ecological complex of soil–sugarcane–woman is no longer poisoned by the heavy metals generated by extractive processes in territories

⁵ It is important to clarify that this work does not underestimate the effects these issues have on nonhuman entities—in this case, sugarcane, the river, and the territory. However, the focus here is on women as one of the central analytical domains within this socio-environmental conflict.

connected to rivers? The issue is not merely relocating factories away from rivers, but rather recognizing the river as a subject of rights, as evidenced by India's Central Water Commission:

The five major rivers of India contain high levels of heavy metals and exceed the minimum standards established by the WHO. The construction of factories, the discharge of domestic wastewater into rivers, and the placement of industries near them should no longer be permitted if public health is to be prioritized. Therefore, the abdominal and joint pain experienced by these women may stem from their relationship with contaminated soils. (DW, 2022b, 34:18)

This monoculture, a product of neocolonialism, leads sugar companies to disregard the harm inflicted on rivers through contamination with heavy metals, which nourish the sugarcane connected to the soil—soil that, in turn, is also subjected to harm through exposure to these substances. That same poison affects and contaminates women's bodies, forming an intersection of pain and suffering, as articulated by hooks (1984/2010).

All of the above exerts a profound impact on beings—both human and nonhuman—who endure this pain-suffering. As previously indicated, the woman–sugarcane–river relationship represents an expanded form of intersectionality intrinsic to this problematic field. Focusing on only one of its components would fragment the issue and obscure the colonial domination that permeates it.

At the same time, the relationship among woman, sugarcane, and river demonstrates that they are companions within this deeply entangled neocolonial problem. To envision possible paths of resistance, it is necessary to recognize the singularity of each of these agents. Returning to hooks (1984/2010), this point becomes particularly clear in the case of women, when the author states that

Black women, as well as other groups of women who live daily under oppressive conditions [such as the women in India previously mentioned], often develop an awareness of patriarchal politics through lived experience, as they build strategies of resistance—even when such resistance is not sustained or formally organized. hooks (1984/2010).

This strategy of resistance has already begun to manifest among some women in India, including Manisha Tokle, an activist and social worker who was the first to bring visibility to this issue. Subsequently, other activists have joined the effort, leading the Indian state to address the realities faced by women sugarcane cutters. In 2018, public denunciation of this issue prompted the Indian government to announce that this practice must be halted. According to a DW report (2022b), from that point onward the number of monthly hysterectomies decreased from approximately 120 to 80.

When examining the challenges faced by other women, it is necessary to adopt a perspective that accounts for the effects of coloniality and allows for an understanding of their realities through an intersectional lens, avoiding inappropriate biases and recognizing the situated complexity of each case and its entanglements. Within this framework, the suffering of nonhuman entities, such as the river and sugarcane, also becomes the suffering of women.

Posing questions about racial, gender, class, and species-based (nonhuman) subordinations enables alignment with a politics of *nos/otras*, as proposed by Espinosa Miñoso (2022) in her articulation of Latin American feminism. She states that she has “reflected on identity politics by problematizing the universality of *we women* and its call for solidarity beyond the borders that emerge from it” (p. 37). The notion of *nos/otras* connects with a matrix of thought grounded in expansion and inclusion, demanding solidarity and reciprocity with rivers, land, and the uterus. It therefore calls for non-extraction and non-commodification of these entities.

An example of this *nos/otras* resistance is examined by Lourdes Zabala (1994, as cited in Gómez-Barris, 2017/2021) in the case of women’s mining democracy in Bolivia, where women carried out a hunger strike in 1962 to gain access to more dignified working conditions. In this way, “hungry bodies become, in themselves, a critical nexus for anti-state and anti-capitalist resistance under structurally impossible conditions” (Gómez-Barris, 2017/2021, p. 183). Through their struggle, they achieved the establishment of the eight-hour workday, the release of their husbands, and the payment of wages owed

to them. This demonstrates what can be accomplished when women's bodies come together, engage, expose themselves, and carry out protests that disrupt and unsettle society.

For this reason, it is essential to insist on the idea of becoming a nexus of resistance through an expanded intersectionality—one that not only involves women within this *nos/otras*, but also calls for confronting these issues from an inclusive *nos/otras* (encompassing other species) and from a symmetrical regime of sustainable interdependence (Herrero López, 2013). It is therefore imperative to ask: how can multispecies alliances of care be established among women in India in order to resist an economy and a commodification of pain that involve a heterogeneous array of bodies? This inquiry concerns all societies, particularly those that create legal frameworks grounded in mercantilist and productivist ideologies.

The Relationship Between Afro-Colombian Women and Sugarcane

To continue the purpose of this article, attention now turns to how Afro-Colombian women relate to sugarcane as an ancestral companion for women's health. To support this argument, a brief preamble is offered regarding how the world is understood within Afro-Colombian territories. In this regard, reference is made to the work of Colombian anthropologist Natalia Quiceno Toro (2016), who has studied the ways of life of Afro-Atrato⁶ communities, the distinctive modes that emerge from them, and, from this perspective, their understanding of the body, health, and illness.

The conception of the body within these communities is closely linked to their territory and to what it provides, such as plants. In this sense, the gathering of plants and the knowledge associated with them shape an understanding of health and illness from an integral perspective, one that is in continuous relationship with the nonhuman. This includes, for example, connections with the

⁶ The term Afro-Atrato communities refers to populations living along the banks of the Atrato River—one of the most important rivers in Colombia—located in the department of Chocó. This region is predominantly inhabited by Afro-descendant communities.

forest, the act of collecting plants, and the constant attentiveness to the sounds and rhythms of the jungle. The act of gathering plants and entering the forest to do so yields an understanding of the world grounded in the nonhuman—not as entities serving human beings, but as beings that teach them. This relationship is expressed through plant-based baths, herbal infusions, and medicinal remedies, as these ritual practices involve an ongoing attentiveness to the healing that plants provide. These ways of relating to ancestral medicine carry a “secret,”⁷ understood as a spiritual message directed to the person receiving healing through plants, which prepares the individual's spirit to experience healing across multiple dimensions.

The above reveals a way of life grounded in a spirituality embedded in the territory and in the bodies that inhabit these ancestral forces, customs, and ways of being. These elements are preserved by these communities, and many of their practices are applied in traditional midwifery⁸. Thus, these communities are deeply influenced by ethnobotany, healing practices, beliefs about spells or afflictions placed upon the body, and other practices that reflect an understanding that these bodies are part of a broader space, from which emerge the means to heal and alleviate ailments that may cause pain.

In the chapter “Bodies: Divine and Human Forces,” Quiceno Toro (2016) identifies key elements for understanding this system of healing, curing, and ways of *vivir sabroso*⁹ (living well). This worldview and self-perception are structured around a triad: healing, protecting, and liberating bodies. Within this triad, food, music, and celebration are fundamental practices that sustain the way of being of Afro-Atrato communities. Plants are allies within this framework; thus, the forest becomes a special space for encounters of listening between each body and plant life. These plants are later brought home and cared for in personal gardens—especially rooftop gardens—which constitute

⁷ The “secret” refers to a prayer, message, or intention. It is a spiritual manifestation performed by the healer or the person preparing the *botella curada*, intended to promote healing in the person who consumes it and to ensure their well-being across all dimensions of life.

⁸ Midwifery in Colombia has been recognized as Intangible Cultural Heritage of Humanity by UNESCO (Restrepo, 2023).

⁹ *Vivir sabroso* is not merely an everyday expression in Colombia's Pacific region; it refers to a way of being centered on living joyfully and embracing one's cultural traditions. It also represents a political stance that, grounded in community sovereignty, advocates for a dignified life in peace and equality.

“a cultivation practice characteristic of the Pacific region [and] complete the circuit of interaction with plants, their possibilities, properties, and potentials” (Quiceno Toro, 2016, pp. 110–111).

In this way, Afro-Chocoan spirituality and therapeutic practices envelop each body, embodying beliefs and ritual practices associated with “la cosa hecha” (something done to someone), “el daño” (harm), or “la maldad” (malevolent intent), as explained by Quiceno Toro (2016). This therapeutic spirituality accompanies the individual from birth to death. The beginning of life is guided by traditional midwifery, grounded in knowledge of plants, the reading of body temperature, and the need to prevent trama (retention of the placenta). After birth, a ritual act occurs that territorializes the body: the ombligada, which consists of burying the umbilical cord in the place of birth. As an example, Quiceno Toro (2016) recounts the testimony of Father Sterling, a community leader: “My name is Sterling Palacios, and my umbilical cord is in Yuto. That is where I was born, and where my umbilical cord was buried” (p. 121).

This system of relationships between body and territory also entails a process of bodily harmonization. To achieve this, a balance must be maintained between the spectrum of cold and heat. In Afro-Chocoan medicine, cold manifests from the waist down; therefore, conditions affecting these parts of the body are referred to as “cold illnesses.” In this sense, when a person is menstruating, she cannot go to the cemetery or enter the forest, as this would generate even more cold in the body. The opposite occurs with heat, which is located from the head down to the waist; when there is discomfort in these areas, it is referred to as “hot illnesses,” with the exception of the teeth and molars. Thus, therapeutic temperature functions as a means of healing, given that “an illness cannot be treated with more of the same; it must be treated with its opposite” (Quiceno Toro, 2016, p. 115).

All of this is presented in order to argue for the systems of relationships established by Afro-Chocoan communities of the Colombian Pacific and their connection to territory, plants, healing practices, spiritual knowledge,

and everything that constitutes their identity. It is worth emphasizing the relationship with space, as it enables bodily expressions and lived experiences, while also sustaining what, for these communities, constitutes healing.

It is important to make a clarification regarding Afro-Atrato therapeutic practices, which “do not speak of representations or beliefs, but of practices and elements that must be continuously enacted in order to exist” (Quiceno Toro, 2016, p. 140). From this mode of existence rooted in the territory, the distillate of sugarcane is recognized as a special product, forming the basis of a remedy for menstrual pain that, in commercial terms, is known as *toma seca* or “herbal liquor”¹⁰; however, within these communities it is referred to as a *botella curada* (healing bottle). This is a liquor contained in a glass bottle, whose base is the foundational beverage of Afro-Colombian spirits, known as *viche*:

This drink is ancestral. It is the foundation of all beverages [of the] Pacific region. It originates from the processing of sugarcane harvested during its maturation stage, which is then crushed to extract a liquid. This liquid is left to ferment for 20 to 25 days and is subsequently distilled; the mixture is heated to separate the different substances that compose it through selective vaporization and condensation. It serves to increase vitality and fertility. “Viche is the emblem and origin of derivative beverages.”—Dimes Orejuela. (Cárdenas González, 2019, para. 5)

Various medicinal plants collected from the forest are added to the *viche* according to the ailment; for example, for menstrual pain, anti-inflammatory and warming plants are used. Through dialogues and online interviews with Afro-descendant traditional knowledge holder Lina Marcela Piedrahita, it is noted that, initially, only one *botella curada* was prepared for menstrual pain. However, among Afro-Colombian women themselves, there emerged an understanding that not all women experience menstruation in the same way. This led to the need to prepare a personalized *botella curada* for each woman, in which the remedy is tailored to the specific characteristics of the menstrual pain she experiences.

¹⁰ For a broader perspective on ancestral beverages from the Colombian Pacific, see CocoCauca (2019) and the journalistic article by Cárdenas González (2019).

Through oral tradition, Lina Marcela Piedrahita recounts that when her own midwife or her grandmothers give a *botella curada* to a woman, they do so along with a “secret” that invites her to embrace her roots and maintain a healthy uterus. This bottle can last for many years and, from time to time, additional *viche* must be added to preserve the effectiveness of the medicinal plants. Many women report having experienced relief—that is, healing from menstrual cramps—through the consumption of the *botella curada*.

Final Considerations

It is important to revisit the idea of the rhizomatic relationship among sugarcane, the river, women, and the uterus. In the case of women in India, this relationship results in illness: their lives become marked by the removal of the uterus, the burden of debt, and a life of constant pain. In contrast, for women in the Colombian Pacific, the connection with the nonhuman configures a system of health that alleviates suffering and sustains their ways of living.

This way of experiencing menstrual health, grounded in ancestral knowledge, is emancipatory; however, it is also recognized that, within the Colombian healthcare system, it is not considered an institutionally accepted practice. As a result, those who hold this knowledge often live under precarious conditions: they walk for hours to attend a birth—as is the case for most traditional midwives—and their work is not formally recognized, remaining on the margins of informality and, at times, romanticized under the notion of “ancestral knowledge.”

To illustrate this situation, I would like to refer to an interview with Yasnury Vanegas in the book *Weaving Lives: Midwives, Ancestry, and Health* (García Torres & Rubio Toro, 2025). In this work, Vanegas recounts a phone call from her mother, who, with concern, informed her of the death of Fany Murillo, a renowned midwife from Nuquí. Her mother expressed her distress by asking: “How are these women going to give birth? ... considering that one of the most experienced midwives has passed away, and that Nuquí is already a difficult

place, with only one physician for 16,000 inhabitants” (García Torres & Rubio Toro, 2025, p. 32). This testimony highlights that midwifery constitutes a fundamental pillar of healthcare in many regions of Colombia where medical coverage is insufficient.

Later in the same interview, Vanegas notes that in peripheral neighborhoods of Medellín, such as Bello Oriente, there are Black and Indigenous midwives who continue to assist births. However, many of them practice in silence for fear of being imprisoned. Vanegas states: “I have learned of spaces where traditional midwives are denigrated because they are Afro-descendant, Indigenous, or rural women and have not attended any university; some of them cannot even read or write. For these reasons, they are stigmatized.” (García Torres & Rubio Toro, 2025, p. 34)

Through this example, I aim to make visible some of the realities faced by the world of midwifery in Colombia. It is important to emphasize that midwives possess deep knowledge of medicinal plants, making their relationship with nature essential to their practice and to the care of life.

In this sense, this text seeks to highlight that plants, as companion beings, provide healing and allow illness to be understood as a transient condition, as is the case with menstrual pain among women in these communities. However, this perspective cannot be fully understood without an intersectional analysis of the limited or nonexistent interest of states¹¹ in the menstrual health of girls, women, and menstruating bodies. This is evident both in the socio-environmental ethical challenges faced by women in India and in the precarization of healing knowledge related to uterine health among women in the Colombian Pacific. Such precarization has resulted from longstanding gender bias and structural violence within the field of medical healthcare.

¹¹ As of now, neither India nor Colombia has regulatory frameworks for menstrual health that recognize menstruation as a vital sign. In both contexts, policies have focused on “menstrual hygiene,” an approach that has led to measures such as reducing taxes on menstrual products but whose language reinforces the notion that menstruation is something that must be sanitized. Nonetheless, some studies have sought to elevate menstrual health to a broader level of analysis, such as Garg (2023) in India and Puentes Villota and Ariza García (2023) in Colombia. It is also worth noting that in Colombia progress has been made with Law 2338 on Endometriosis (2023) through the Constitutional Court; however, its implementation remains incomplete in certain regions.

According to Dr. Valls Llobet (2020), “medical research has ignored women's bodies” (p. 171), generating a gender bias in the study and diagnosis of their pathologies—for example, in differential morbidity and in the progression of diseases in relation to the menstrual cycle and the hormones involved in this process. The author draws attention to the work of Bernadine Healy, who in 1991 warned about this form of gender-based violence in medicine. Healy demonstrated that, in studies on cardiovascular diseases conducted during the 1980s, research had been carried out exclusively on men, excluding women and subsequently leading to inadequate medical practices in their cardiological care (Valls Llobet, 2020).

In this regard, Valls Llobet (2020) states: “it was assumed that results obtained from men could be automatically applied to women” (p. 173). This heteronormative and patriarchal approach to medicine has led to centuries of neglect in the study of the ovulatory menstrual cycle and has rendered menstruation one of the most persistent taboos in history. Although this topic will not be addressed in depth here, readers are encouraged to consult those who have examined it, such as Frazer (1890/2019), Macías Rea (2023), Naranjo Quintero (2022), Ramírez Vázquez (2022), Tibón (1984), and Thiébaud (2017), among others. These works demonstrate that menstruation has been insufficiently studied and has rarely been recognized as a vital sign of health for those who menstruate.

As a result, it has become normalized to view the uterus as the problem and to assume that its removal carries no significant consequences. In this sense, the existence of communities that self-manage menstrual health through the use of plants goes largely unnoticed by the pharmaceutical industry, whose primary interest has been to market synthetic hormones in order to produce non-menstruating bodies and thereby sustain an extractivist logic centered on production and economic gain:

Associations have been described between xenoestrogens and heavy metals and the presence of menstrual cycle disorders, as well as increased rates of endometriosis and uterine fibroids. Lead and mercury may have anti-estrogenic effects, and cadmium

has been linked to an increased incidence of endometriosis. Women exposed to insecticides and solvents in the workplace already exhibit metrorrhagia and shorter cycles as early as the month following exposure. (Valls-Llobet, 2010, p. 153)

Despite the existence of research documenting increased biomarkers associated with pathologies in bodies with uteruses following exposure to chemical substances—due to their greater sensitivity to these compounds—industrial production systems remain unchanged. This perpetuates ongoing harm to the endocrine and hormonal systems through exposure to multiple agents: “pesticides, metals, food additives, and personal care products” (Briden, 2020, p. 346). Undoubtedly, this is a gendered issue that impoverishes and harms those with uteruses, given that “lipophilic chemical substances are more easily accumulated in individuals with higher fat tissue (the female sex presents approximately 15% more body fat than males)” (Valls-Llobet, 2010, p. 152).

Therefore, the perspectives presented in this article serve as a means of resisting structural gender-based violence that compels many women to undergo hysterectomy in order to remain productive within the logic of patriarchal capitalism. At the same time, they resist the hegemony of knowledge that validates only heteronormative, patriarchal, and Western medicine, excluding other forms of medicine rooted in ancestral and community-based knowledge.

This is the case of medicinal beverages such as *toma seca* and the *botella curada*, produced through the distillation of sugarcane and developed by Afro-descendant communities of the Colombian Pacific for the management of menstrual pain. In this sense, this article has brought to light the frictions between transnational and transcultural contexts that emerge from the entanglement of women and sugarcane, as well as the call to care for both, in order to propose more just actions for menstruating bodies—counteracting the invisibilization of menstrual health and contributing to its necessary emancipation. From the first case, it becomes clear that all individuals are exposed to environmental toxins; however, “women will always be more affected than men, because toxic substances more readily penetrate the central nervous system when mediated

by estrogens (predominantly female)” (Valls-Llobet, 2010, p. 153). Therefore, “until our governments enact stricter regulations, we can only minimize our individual exposure. We cannot completely avoid toxins” (Briden, 2020, p. 351). In the case of women in India, this situation is even more complex, as they live in conditions of extreme vulnerability, where the feminization of poverty is clearly evident.

In the second context, it is important to emphasize that there are means of healing for the uterus; however, greater awareness on the part of governments is still needed, along with a process of decolonizing knowledge so that these practices may be recognized and strengthened. Otherwise, they will remain embedded within a system of precarization that acknowledges them only in a romanticized manner as “ancestral knowledge,” without providing economic support or dignified living conditions for those who practice them and act as healers of uterine health. For this reason, it is hoped that this article will serve as a catalyst for future approaches and research addressing the relationship among uterus–sugarcane–river and medicinal plants, fostering dialogue grounded in the care of exploited women, whose bodies, in their interaction with the nonhuman, express the exploitation of the river, the sugarcane, and their own uteruses. In them, more tangibly, bodies inhabit extractivism—an extractivism that must be confronted by opening emancipatory pathways capable of transforming this network of relationships between the human and the nonhuman.

Conflict of Interest

The author declares no conflict of interest with any institution or association of any kind. Likewise, Universidad Católica Luis Amigó assumes no responsibility for the management of copyright by authors in their articles; therefore, the accuracy and completeness of citations and references are the sole responsibility of the author.

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