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Burning Blood: The *quemada* among the Nahua of Cuetzalan in the Sierra Norte de Puebla, Mexico

Anna Giulia Macchiarelli
Università Campus Bio-Medico di Roma

Abstract

Among the Nahua of Cuetzalan (Sierra Norte de Puebla, Mexico), childbirth is not only a biological process but a moment of heightened social and «thermal» vulnerability. This article explores quemada, a local ailment believed to result from contact with postpartum or menstrual blood, described as dangerously hot and capable of «burning» others: especially children and men who are considered to have weak blood. Drawing on ethnographic fieldwork with midwives and traditional healers between 2017 and 2019, the article analyzes the ailment's etiologies, symptoms, and treatment protocols, situating quemada within broader Mesoamerican logics of heat, balance, and gendered responsibility. Rather than treating quemada as a culture-bound syndrome, the article frames it as an indigenous diagnostic category that reflects a coherent etiological explanation of illness. While some midwives incorporate biomedical language into their reasoning, quemada remains excluded from biomedical practice, in part due to linguistic, cultural and institutional barriers, but more importantly because to native perception it falls outside biomedicine's domain of competence. Ultimately, quemada challenges lingering assumptions about traditional medicine as residual: it confirms the living, dynamic, and internally consistent Nahua medical system which continues to organize illness experience and therapeutic action in contemporary Nahua communities.

Keywords: *quemada*, ethno-obstetrics, ethnomedicine, traditional midwives, traditional illness.

Sangue che brucia: La *quemada* fra i Nahua di Cuetzalan, nella Sierra Norte de Puebla, Messico

Tra i Nahua di Cuetzalan (Sierra Norte di Puebla, Messico), il parto non è soltanto un processo biologico, ma un momento di accentuata vulnerabilità sociale e «termica». Questo articolo esplora la quemada, una malattia locale che si ritiene derivi dal contatto con san-

gue postpartum o mestruale, descritto come pericolosamente caldo e capace di «bruciare» gli altri, in particolare i bambini e gli uomini che si ritiene abbiano sangue debole. Basandosi su una ricerca etnografica condotta tra il 2017 e il 2019 con levatrici e guaritori tradizionali, l'articolo analizza le eziologie, i sintomi e i protocolli terapeutici della malattia, collocando la quemada all'interno di più ampie logiche mesoamericane del caldo, dell'equilibrio e della responsabilità di genere. Piuttosto che trattare la quemada come una sindrome culturalmente determinata, l'articolo la inquadra come una categoria diagnostica indigena, fondata su un sistema eziologico coerente e condiviso. Sebbene alcune levatrici integrino nel loro ragionamento un linguaggio biomedico, la quemada resta esclusa dalla pratica biomedica, in parte a causa di barriere linguistiche, culturali e istituzionali, ma soprattutto perché, nella percezione nativa, essa ricade al di fuori dell'ambito di competenza della biomedicina. In ultima analisi, la quemada mette in discussione i presupposti ancora esistenti che considerano la medicina tradizionale come residuale: essa conferma l'esistenza di un sistema medico nahua vivo, dinamico e internamente coerente, che continua a organizzare l'esperienza della malattia e l'azione terapeutica nelle comunità nahua contemporanee.

Parole chiave: *quemada*, etno-ostetricia, etnomedicina, levatrici tradizionali, malattia tradizionale.

Introduction

Blood is not a neutral substance in the indigenous communities of Cuetzalan del Progreso[1] (Sierra Norte de Puebla, Mexico); indeed, certain types of blood, particularly those expelled from the female body during childbirth or menstruation, are considered dangerous. This blood can become a vector of illness, impurity and disorder. An illness widely recognized in local nosology, *quemada* or *motatih* in Nahuatl (Lupo 2012: 50), refers to a condition believed to be caused by contact with this «burning» blood (Zolla & Argueta 1995; Fagetti 2004; Lupo 2012). Those perceived as weaker (especially children, weak husbands, or others with diminished vitality) are seen as particularly vulnerable to this ailment, once they have direct contact with the blood.

[1] Cuetzalan del Progreso is a municipality in the northern region of the state of Puebla, Mexico, near the border with Veracruz. The area is predominantly rural and largely indigenous: approximately 70% of the population speaks an indigenous language, primarily Nahuatl, with Totonac also present. Located in the northeastern sector of the Sierra Madre Oriental, the municipality includes more than 160 communities distributed across different altitude zones. Ethnographic fieldwork was conducted between July and October 2017 and in the fall of 2018 within the framework of the Italian Ethnological Mission in Mexico (https://meim.digilab.uniroma1.it/), with research mobility funded by the Italian Ministry of Foreign Affairs.

This article, based on ethnographic fieldwork conducted in various Nahua communities of Cuetzalan, explores the etiology, symptoms, and socio-physical effects of *quemada*, along with the strategies of prevention and treatment enacted primarily by indigenous women. Particular attention is given to the testimonies of local midwives, whose role still today extends far beyond childbirth assistance. These women provide therapeutic and educational support throughout the reproductive life cycle, from menarche to menopause, thus playing a central role in communal health and knowledge transmission (Macchiarelli 2024). The research was primarily conducted during two stays in Cuetzalan between 2017 and 2018, with specific investigation on *quemada* carried out over approximately two months of residence in 2018. Follow-up questions were asked during a third stay in the summer of 2019, allowing clarification and confirmation of previously collected material. The research involved sustained collaboration with traditional midwives (*parteras*), selected through field contacts and networks established during earlier fieldwork. In total, more than twenty midwives across different communities of the municipality were interviewed. Interviews were conducted in Spanish, audio-recorded and later transcribed. Audio-recorded semi-structured interviews were preceded and accompanied by extended periods of informal interaction, allowing sensitive topics to emerge gradually within relationships of trust[2]. Some interviews were conducted more than once at different times during my stay. Participant observation was carried out both in the *Módulo de Medicina Tradicional* of the General Hospital of Cuetzalan and in rural communities and villages, during prenatal consultations, monthly pregnancy check-ups, and selected postpartum visits (in cases of hospital birth), though not during childbirth itself. During observations, midwives and relatives often conversed in Nahuatl among themselves and subsequently explained interactions to me in Spanish. The study did not include formal interviews with puerperal women. In several cases, access to these women was mediated by husbands or other senior family members, and permission to conduct individual interviews was not always

[2] Given the predominantly non-literate context of the research setting, written informed consent was not collected. Instead, informed consent was obtained orally. Participants were informed at the beginning of each recorded interview about the purpose of the research, the use of audio recording, and the guarantee of anonymity. Consent was understood as an ongoing, processual agreement, negotiated through repeated interactions in the field.

granted. Their experiences were therefore documented indirectly through observation and through midwives' accounts.

Although the phenomenon of *quemada* is not exclusive to the Nahua of Cuetzalan, scholarly research on it remains limited. One of the earliest and most notable accounts comes from Montoya Briones (1964), who described *quemada* among the Nahua of Atla as resulting from noxious emanations (*xoquía*) produced during human or animal childbirth. In nearby communities such as Zapotitlán de Méndez and Santiago Yancuictlalpan, Cuerno Clavel and Domínguez Hernández (1989) focused on the case of *quemada del esposo*, in which a husband is affected through continued sexual contact with his wife during the postpartum period. Reyes Antonio (1982), working with Nahua populations in San Luis Potosí, described *quemada*, called *netlatilitzli* (burning or scalding[3]), as an illness triggered by arguments or emotional conflict, affecting women who have recently given birth, their newborns, or witnesses to the dispute. In these cases, ritual postpartum baths are considered essential for both mother and child, and great care is taken to ensure that the newborn does not ingest maternal blood. These variations, although framed under the same name, point toward a broader etiological field in which substances associated with childbirth and sexual conduct are considered capable of producing illness. In this respect, *quemada* presents certain affinities with the logic underlying the *aires de basura* described by Hersch Martínez (1997), discussed further below.

Gómez Aiza (2011), in her work among the Otomí of the Sierra in Hidalgo, highlights a similar perception of perinatal impurity: both mother and newborn are regarded as unclean, and thus potentially harmful to others, especially to other children in the household. Symptoms of the resulting illness may include fatigue, anorexia, refusal of liquids, swelling, and skin blotches. The condition can be prevented through purifying *temazcal*[4]

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[3] As for the Nahuatl designation of *quemada*, the condition is not typically expressed through a fixed nominal form but rather through verbal constructions. Contemporary usage often relies on reflexive forms such as *motatih* (he/she burned himself/herself), derived from the verb *tatia* (to burn something). Karttunen (1983: 297) records *tlatla* (to burn), while Key and Ritchie (1953: 104, 196) list forms such as *tatahtatiliz* or *tatatiliz* (burn, burning) and *quitatia* (he/she burns it).

[4] The *temazcal* is a ritual steam bath of pre-Hispanic origin, produced through heated stones and medicinal herbal infusions, and used in Indigenous medicine as a therapeutic device to restore bodily balance (Alcina Franch, Ciudad Ruiz & Iglesias Ponce de León 1980; Lupo 2012).

baths, which both mother and infant must undergo. Interestingly, contagion may occur not only through direct contact with blood, but also through *aire sucio* (foul air or *xoquiatiliztli*) such as the vapors of a corpse or even the sight of an animal birth. These emanations are thought to generate heat and putrefaction, which in turn harm the *tonal*, one of the soul components.

Despite regional and cultural variation, these accounts share significant elements with the *quemada* of Cuetzalan: transmission via infected, putrid, or impure blood; the involvement of the *puerpera* (woman who has just given birth) as agent of contagion; the excessive «thermal» force attributed to female blood; and a symptomatology that, although largely varied across ethnographic accounts, is potentially fatal.

Before delving into the ethnographic cases and interviews that illustrate how *quemada* is conceptualized and addressed locally, I will first outline the cultural models of personhood (pre-Hispanic, colonial, and partially contemporary biomedical influences) that inform indigenous understandings of this illness. These include ideas about the moral and physical nature of blood; the liminal status and marginalization of the female body during reproductive transitions; the Nahua conceptions of heat, cold, and bodily balance inherited from the ancient Nahua dualistic cosmology; and the indigenous etiological principles that determine the emergence of illness.

Blood, Contagion and Marginalization

The concept of contagion is reinforced through preventive and therapeutic strategies and gains tangible reality when one encounters people or environments perceived as contaminated. However, this fear of the Other as a source of impurity has older foundations. In *De contagionibus* (1546), Girolamo Fracastoro (in Caprara 2012) identified three transmission modes: direct contact, contact with a harmful substance, and transmission at a distance. Later, Frazer's *The Golden Bough* (1998) documented how symbols and natural elements are culturally linked to illness. Such links often stem from religious or social transgressions (Caprara 2012).

Douglas (1966) famously argued that impurity signifies a breach in symbolic and social order: «Dirt is essentially disorder […] Eliminating it is not a negative movement, but a positive effort to organize the environment» (Douglas 1966: 1-2). Thus, purification practices, whether ritual or hygienic, should be understood as symbolic reordering. Similar logics of pollution linked to life-cycle transitions have been documented among

contemporary Nahua communities of the Sierra Norte de Puebla, where birth and death are conceptualized as particularly dangerous moments requiring ritual management (Baez Cubero 1998).

In pre-Hispanic Mesoamerica, particularly among the Mexica, blood (*eztli*) was vital, sustaining gods and cosmic order through sacrifice (López Austin 2004). It was also generative, as in the *Leyenda de los Soles*, where Quetzalcoatl created humans from his blood mixed with bones (Bierhorst 1998; López Austin 2004). However, colonial narratives[5] depicted menstrual blood as monstrous. Fuente de Peña linked menstruation to deformities, and López de Corella warned: «The blood that is menstrual / has venomous effects […] / do not be scared if it comes out / the very foul creature[6]» (López Austin 2004: 337-338). These beliefs extended to perceptions of women as contaminating agents during pregnancy or the postpartum period, even mythologized as monstrous *tzitzimime* at the end of the calendar cycle (López Hernández & Echeverría García 2011). A clear example of this logic appears in Nahua conceptions of menstruation, pregnancy, childbirth, and the postpartum period. Women in these stages were regarded as physically unstable and capable of emitting harmful forces that could affect those around them. Men who had sexual contact with menstruating or postpartum women were believed to fall ill; children exposed to them might suffer diarrhea, weakness, or persistent crying; even crops and animals could be damaged by their presence. Contact with menstrual or birth blood (especially through stained cloths) was considered particularly dangerous. At the same time, these women were themselves seen as vulnerable, weakened by blood loss and therefore susceptible to illness or death. The response was not public purification rituals but strict rules of abstinence, spatial separation, and the careful disposal or washing of blood-stained materials (López Hernández 2017). Drawing on these premises, we can infer

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5 Though menstruation was considered natural in Galenic theory, by the medieval period it had become morally and symbolically impure and menstrual blood retained associations with impurity and female inferiority until the XIX century (Ranisio 2012). These ideas are not limited to Western traditions. Cross-cultural taboos surrounding menstruation, such as sexual abstinence or food prohibitions, are often religiously framed. Yet, as Buckley and Gottlieb argue, such restrictions are not always punitive: «In some societies, menstrual restrictions […] protect the menstruating woman, not from her» (1988: 3-10). Moreover, across cultures, pregnancy and postpartum are liminal states, often requiring ritual reintegration (Van Gennep 1961).

6 Original: «*La sangre que es menstrual / hace efectos venenosos […] / no os espantéis si saliere / la criatura muy inmunda*» (López Austin 2004: 337-338).

that in the case of *quemada* the source of disorder is the female blood from menstruation and childbirth and, in this case, purification practices are substituted by prevention and avoidance of the dangerous substance.

Heat and Cold: The Thermal Properties of Bodies

The oppositional system of hot and cold, a symbolic classification of plants, foods, and beings based on perceived thermal or symbolic properties, appears to have persisted beyond the Conquest. Among Nahua communities, health is conceptualized as a state of balance that must be maintained (Ortiz de Montellano 1984: 162). Illness thus results from its disruption, often due to contact with substances deemed too hot or cold.

These properties are assigned according to symbolic associations rather than physical temperature: for example, vegetables and pork are cold due to their proximity with water or earth. Individuals themselves possess intrinsic thermal attributes (men as hot, women as cold), and interactions are regulated accordingly (Signorini 1989; Lupo 2012).

In recent studies (García-Hernández, Vibrans & Vargas Guadarrama 2022), the hot-cold system has been described as a flexible and regionally variable classificatory framework, within which bodies shift thermal states across the life cycle. Reproductive phases (menstruation, pregnancy, childbirth, and the postpartum period) are recurrently portrayed as moments of thermal instability, marked by retention or loss of blood, sweating, effort and transformation. Menstruation, for instance, is often classified as «hot» and menstrual blood as «very hot», yet the concomitant loss of blood may also be interpreted as a depletion of heat or «cooling». Similarly, pregnancy is frequently conceived as a «hot» state: whether because blood is retained, because the fetus itself is considered «hot» or because the uterus is symbolically «heated» through sexual relations and semen; while the postpartum period is widely described as a moment of sudden «cooling» due to blood loss and the exit of the child. Such classifications, however, are not uniform: the underlying reasoning and the direction of thermal change may vary between communities, even where similar labels are used. Within this framework, the system is neither rigidly binary nor confined to the domain of diet or pathology; rather, it operates across multiple domains (including bodily fluids, emotions, environments, and social relations) and often involves gradations or intermediate states rather than strict oppositions (García-Hernández, Vibrans

& Vargas Guadarrama 2022). In this perspective, the «heat» attributed to menstrual or postpartum blood does not simply designate a position within a binary scheme, but signals a concentration of force that may generate illness when equilibrium is disrupted.

While Foster attributed this system to a colonial adaptation of the humoral model (Foster 1993), López Austin emphasized its Mesoamerican roots (López Austin 2004). However, European-trained scholars often misunderstood Indigenous classifications, revealing deep epistemological differences hidden beneath apparent parallels (Foster 1993; Lupo 2012). As scholars have shown, what is today labelled traditional medicine in Mexico is the outcome of a long process of transformation shaped by the encounter and ongoing exchange between Amerindian, Iberian popular, and, to a lesser extent, African medical traditions, rather than the preservation of a pristine indigenous system (Lupo 1998).

Whether of colonial or pre-Hispanic origin, thermal classifications are essential for understanding several pathological conditions in Indigenous communities, particularly those related to the female reproductive cycle. A compelling counterpart to *quemada*, where strong blood is said to burn and transmit illness, is the condition described by P.A., midwife and healer from Cuetzalan. She attributes her own infertility to a phenomenon known as *enfriamiento de la matriz* (cooling down of the womb):

> … the uterus becomes like that because of its coldness[7], so like when one is twelve or fifteen years old […], she can no longer get pregnant because her womb is very cold. That happened to me, that's why I'm telling you. I worked a lot, I got wet a lot. I went to the doctors and they examined me where they told me. «You used to get very wet when you were little, your clothes would dry on you like that and you wouldn't change them». I tell them, «Yes, it's true. Like you say, I worked a lot since I was little. We make *panela*. I worked with my father, I helped a lot, with my brothers. Like that, little, little» (P.A. – Tepetitan, September 17, 2018)[8].

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[7] Similar associations between female reproductive states, thermal imbalance, and vulnerability are documented among the Lenca of Honduras, where menstruating and postpartum women are classified as cold and subject to specific restrictions (Quattrocchi 2000).

[8] Original: *«… la matriz se hace con su frialdad, entonces como cuando uno tiene doce-quince años [...], ya no puede embarazarse porque tiene muy enfriada la matriz. A mí me pasó, por eso te digo. Trabajaba mucho, me mojaba mucho. Fui con los médicos y me*

Following childbirth, the woman's body undergoes a sharp drop in heat due to the release of menstrual blood retained for nine months and believed to have nourished the fetus. This sudden loss can result in a form of *enfriamiento* similar to the one described above. Amenorrhea (whether acute or chronic), irregular cycles, or difficulties in conceiving are often explained as consequences of walking barefoot or bathing with cold water during menstruation or pregnancy; the term cold here refers not to physical temperature, but to a symbolic quality, namely water that has not been heated through the addition of «hot» plants, such as *omequelite* (*Piper auritum*, also known as *hoja santa*, *hoja santa María*, *hierba dos* and *hierba hueso*). As shown in Lupo (2012), the primary treatments for these conditions are indeed hot ones: herbal baths or *temazcal* (steam baths) as well as herbs and plants that are considered «hot» which closely resemble those used to treat *quemada*.

Similar dynamics have been documented among Maya communities of Yucatán, where the postpartum period is conceptualized as a phase of bodily «openness» requiring gradual «closure» through thermal and manipulative practices. In this context, childbirth marks a moment of vulnerability in which the woman's body, having lost blood and heat, must be protected from cold influences and progressively restored to equilibrium (Quattrocchi 2006). Such notions of loss of equilibrium and subsequent rebalancing through traditional practices resonate with the Nahua understanding of *enfriamiento* and with the broader logic that links the reproductive cycle to thermal instability.

Strong and Weak Blood

The term *quemada*, sometimes translated as burn or scalding, refers to a range of symptomatic manifestations diagnosed by traditional Indigenous healers, usually midwives. These manifestations are not standardized but encompass a variable set of bodily signs. However, they commonly include abnormal swelling (especially of the face, but also of the hands and feet), pallor, yellowing of the skin (possibly a form of jaundice), fatigue, lack of appetite, nausea, vomiting, and depressive episodes. In some cases, a red

checaron adonde me decían ellos. "Tú te mojabas mucho cuando eras chiquita, se secaba tu ropita así y no te cambiabas".
Le digo, "Sí, es cierto. Como dicen ustedes, trabajaba mucho desde cuando era chiquita. Hacemos panela. Trabajaba con papá, ayudaba mucho, con mis hermanos. Así chiquita, chiquita"».

rash resembling those associated with exanthematous diseases may appear (symptoms also recorded by Cuerno Clavel & Domínguez Hernández 1989). Its cause is generally attributed to a thermal imbalance triggered by contact with the «hot» blood of a woman who has just given birth, or, in some cases, the menstrual blood of a woman.

> The *quemada*, so to speak, in babies is when [the mother] has a three-year-old child and […] becomes pregnant again. What happens then? After the baby is born and the mother is lying down, this is what she cannot do. […] But if the [older] child sleeps with the mother who has just had her baby, we are talking about one week, it will affect him, because he will start to swell. That is what we call the *quemada*[9] (P. B. – Cuetzalan, September 13, 2018).

According to Nahua conceptions of gestation and childbirth, during pregnancy the woman retains blood, an inherently hot substance, accumulated over nine months due to the absence of menstruation. This blood is expelled at birth alongside the amniotic fluid, the placenta, and the child, and continues to be released during the postpartum period, often accompanied by clots. Retaining blood for such a long time is believed to raise its thermal quality, making it not only extremely hot but also capable of harming those who come into contact with the mother's body. The most vulnerable are older siblings of the newborn (including adoptive children or other young people in the household[10]), and the husband. Even without direct contact with the fluid, this blood is said to «burn» individuals who are deemed to be weaker, those who are malnourished, physically weak, already ill, or, as many healers put it, who «have weak blood».

> We call it *quemada* because the woman's blood [after] nine months of retention is very strong, it is very hot. So, if the [older] children come close… there are some children who are delicate, but not all of them[11] (P. C. – Cuetzalan, September 21, 2018).

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9 Original: «*La quemada por decir en los bebés es cuando [la mamá] tiene un bebé de tres años y [...] se vuelve a embarazar. ¿Qué pasa ahí? Que cuando nace el bebé, entonces ya nació y la mamá está acostada, esto es lo que no puede hacer. [...] Pero si el niño se duerme con la mamá que apenas tuvo su bebé, estamos hablando de una semana, al niño grande le va a afectar, porque se va a empezar a hinchar. A eso nosotros lo llamamos la quemada*».

10 According to one interviewee (P. B. 2018), such cases are rare, primarily because it is uncommon for other children to sleep in the same bed as a woman who has just given birth. Nevertheless, precautions must still be taken regarding clothing and bed linens.

11 Original: «*Le decimos quemada porque la sangre de la mujer [después] de nueve meses de*

> This depends on the blood. Because there are some women who have a high degree of blood. If the blood is strong, it has more degrees. And [with] blood of fewer degrees, then nothing happens anymore. […] Because the blood is very strong. Yes, and those who are born, they have weak blood, if they lie down with her other child, nothing happens[12] (P. A. – Tepetitan, September 13, 2018).

> [And why is it called *quemada*?] Well, for that same reason, because of the strength of the blood. Blood and energy. There are children who are very weak, their energy is very low and that is why that happens to them as well. […] There are children who are very weak in spirit and in energy. And there are very strong children who are not affected at all. They can walk barefoot and everything and nothing happens to them. But there are children who are very weak[13] (P. B. – Cuetzalan, September 17, 2018).

The stronger, hotter, and more scalding the mother's blood, and the weaker the blood of the children (or, in some cases, the husband), the more likely *quemada* is to occur. If not treated properly through traditional therapies, the condition is considered potentially fatal. However, death is often described as the result of severe appetite loss, and thus malnutrition:

> [Why did he die?] Well, who knows... he just stopped eating[14] (P. B. – Cuetzalan, September 17, 2018).
> It is as if it were a skin infection. If one contaminates, it contaminates more… it spreads. Only that *quemada* covers a lot on the outside and on the inside. They say that in some cases *quemada* can enter inside, and that is when the child becomes very yellowish. Yes, the child's faces swell[15] (P. B. – Cuetzalan, September 17, 2018).

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retención es muy fuerte, es muy caliente. Así si los niños se acercan… hay unos niños que son delicados, pero no todos».

12 Original: «*Éste depende de la sangre. Porque hay unas mujeres que tienen bastante grado de la sangre. Como que la sangre es fuerte, tiene más grados. Y [con] la sangre de menos grados, entonces, ya no pasa nada. [...] Porque la sangre es muy fuerte. Sí, y los que nacen si tiene la sangre débil, si se acuestan con su otro bebé, ya no pasa nada*».

13 Original: «*[¿Y por qué se llama quemada?] Pues por lo mismo que es la fuerza de la sangre. La sangre y la energía. Hay niños que son muy débiles, su energía es muy baja y es por eso que le pasa eso también. [...] Hay niños que son muy débiles de espíritu y de energía. Y hay niños muy fuertes que no se les afecta nada. Así pueden andar descalzos y todo y no les pasa nada. Pero hay niños que son muy débiles.*»

14 Original: «*[¿Por qué se murió?] Pues, quién sabe… no más dejó de comer.*»

15 Original: «*Es como si fuera una infección de la piel. Si uno contamina, se contamina más…*

At times, however, the underlying logic is not exclusively thermal, nor is it reducible to the degree of heat believed to be retained. Potency may also be understood in qualitative terms, as a matter of intrinsic force rather than mere temperature. An example may help to clarify this point. Another variant, referred to as *quemada de aborto* («abortion burn»), is described as resulting from contact with blood expelled following miscarriage and is considered by some practitioners to be particularly severe, even more dangerous than postpartum blood. According to a midwife's account[16], this heightened danger was inferred from the gravity of symptoms observed in her own child, who developed acute manifestations after she had handled and washed clothing stained with such blood («*lavado ajen*o») and subsequently held the child in her arms. The episode was interpreted as evidence of the intensified potency attributed to blood associated with interrupted gestation: here, death itself is understood to confer a mortiferous power.

Before analyzing the attributed causes, prevention strategies, and treatment of *quemada*, it is important to clarify how this illness category fits within broader anthropological debates on diagnosis and culturally defined illness. As with *susto*, *empacho*, *caída de mollera*, *ojeda*, and other culturally salient conditions common across Mesoamerica and Latin America, *quemada* may initially be interpreted as a culture-bound syndrome (CBS). In Yap's formulation, which is the original regarding CBS, such syndromes referred to psychogenic reactions whose expression is shaped by culturally specific beliefs and social expectations (Yap 1962; 1969). Later work in transcultural psychiatry similarly described phenomena such as *amok* as culture-bound reactive syndromes, understood as culturally patterned variations of more general psychogenic disorders (Carr & Tan 1976). Studies of Mexican ethnomedicine have often discussed conditions such as *susto* and related illnesses within this broader framework of culture-bound syndromes (Fagetti 2004). However, this label fails to capture the full ethnomedical significance of *quemada*. In particular, *quemada* cannot be considered a syndrome in the strict sense, since it does not correspond to a stable constellation of symptoms or a standardized clinical

se amplía. Nomás que la quemada abarca mucho encima y por dentro. Dicen que hay algunas que les puede entrar por dentro la quemada y es cuando se pone muy amarillito. Sí, se hincha la cara a los bebés».

16 Personal communication from Alessandro Lupo, based on information received from a midwife in Santiago Yancuictlalpan during fieldwork in 1985.

course. Drawing on Italo Signorini's influential distinction, *quemada* can instead be understood as a diagnostic category that is etiological rather than descriptive (Signorini 1988). That is, it serves not to define a fixed set of symptoms, as in a biomedical syndrome, but to explain the origin and meaning of an illness episode within a culturally coherent model. The notion of *quemada* structures how suffering is made intelligible and actionable, even if its clinical manifestations vary widely depending on the healer, the family context, or the geographic region.

In Signorini's terms, such categories are explanatory labels that allow practitioners to link a perceived imbalance (thermal, spiritual, or social) to a culturally intelligible cause. Indeed, *quemada*'s symptomatology is not standardized, nor is its treatment protocol, and its etiological logic does not map onto any single biomedical condition.

Rather than being classified as a culture-bound syndrome (CBS), *quemada* is better understood as an etiological category. While comparisons with *napakmbol* (*susto*) among the Huave, as analyzed by Signorini (1988), are heuristically useful, the applicability of Sindzingre and Zempleni's (1981) causal levels (cause, agent, and origin) are more limited in this case. Unlike *susto*, *quemada* does not typically involve an intentional aggressor or clearly identifiable external agent. Instead, it derives from the intrinsic properties attributed to retained and heated postpartum blood. In this sense, it aligns more closely with what Foster termed a «naturalistic» etiology, in which illness is attributed to impersonal forces or to the intrinsic qualities of substances, rather than to the purposeful action of a personal agent (Foster 1976). Nonetheless, moral responsibility may still be implicated when postpartum restrictions are not observed, or when proper hygienic practices are neglected.

Like *napakmbol*, *quemada* functions as a culturally intelligible explanation for illness. Its etiological logic can be mobilized *a priori*, before any clear symptoms appear, based on shared understandings of risk and exposure. At the same time, diagnoses are often elaborated *a posteriori*, as families and healers retrospectively identify events or conditions (social, relational, or moral) that justify the onset of illness.

This movement between *a priori schemata* and *a posteriori* elaboration highlights the fluid, adaptive nature of the diagnostic process and underscores why *quemada* cannot be adequately captured by the CBS framework. It is not defined by a fixed symptomatology, but by its capacity to connect illness with locally meaningful causes, within a coherent moral and cosmological system.

Still, in some cases, traditional practitioners attempt to interpret *quemada* through a biomedical lens. For instance, P.E. initially equated *quemada* with scarlet fever due to the presence of skin rash, a symptom sometimes seen in both: «We call it "*quemada"* but we also know it as scarlet fever. That's how I know it». Later, while recounting a case of *quemada* in the husband, she mentioned that the biomedical diagnosis had been leukemia: «Doctors said it was leukemia». In her explanation, these diagnoses (*quemada*, scarlet fever, and leukemia) began to converge: «It's the same. We know it with different names. *Quemada* is the same, the same as leukemia, the doctors told us it was leukemia, as all the skin begins to burn[17]»[18].

In this particular case, *quemada* no longer functions solely as a culturally embedded diagnostic category. As the midwife acquired biomedical knowledge about diseases with overlapping symptoms (fever, pallor, fatigue, depressive episodes, loss of appetite, and particularly skin eruptions) she began to equate *quemada* with nosographic categories. This suggests the emergence of a second-order explanatory layer, in which biomedical concepts are not simply adopted, but actively integrated into local models of causation: blending external classifications with internal symbolic logic. These biomedical notions, often encountered through hospital interactions or state-sponsored training (Macchiarelli 2024), are reinterpreted through existing epistemologies.

This overlap, however, should not be mistaken for a direct assimilation of *quemada* into any specific biomedical syndrome. Rather, it reflects the porousness of diagnostic boundaries and the ongoing negotiation between coexisting systems of knowledge: where categories remain open, partial, and in the making. As discussed in the literature on medical pluralism, the coexistence of multiple therapeutic frameworks does not imply the presence of neatly bounded systems, but rather dynamic processes of interaction and adaptation (Khalikova 2023). In this sense, the apparent convergence between biomedical and indigenous categories should be understood as a situated negotiation rather than as epistemological equivalence.

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17 Original: «*Es lo mismo. Las conocemos con diferentes nombres. La quemada es lo mismo, pero es la misma leucemia, que los médicos nos dijeron que es la leucemia, que se empieza a quemar todo el cuerito, todo.*»

18 These three quotes were part of the P. E. interview in Cuetzalan on Semptember 24, 2018.

Preventive Measures

Beyond treatment, which can be long, complex, and costly, women also rely on a set of preventive strategies to protect their families from *quemada*. The primary condition for prevention is attentiveness. Most women, by the time they reach their first pregnancy, are already aware of the potential risks through stories and advice passed down from mothers, aunts, and grandmothers. Others, especially first-time mothers unfamiliar with these risks, are usually instructed by midwives during routine prenatal visits, in which they are taught how to care for themselves, their children, and their husbands.

Given the perception of *quemada* as contagious, and its etiology often linked to violations of bodily cleanliness, the first preventive measure (though optional) is to administer a series of herbal baths to those considered at risk during the final months of pregnancy, in order to strengthen their blood and bodily defenses. At the same time, women approaching childbirth are encouraged to use the same herbal infusions along with neutral soaps for intimate hygiene (this recommendation often extends to menstruating women as well). These herbal washes help maintain overall household hygiene, both for those who might «infect» and those who could be «infected», serving as preventive care not only for *quemada*, but also for other external agents, whether linked to Indigenous symbolic frameworks or to biomedical concerns.

The most fundamental and non-negotiable precaution occurs at the end of childbirth, particularly in cases of homebirth: any bed sheets and clothing that came into contact with bodily fluids must either be discarded or washed with powerful disinfectants or soaps. Afterwards, clothing and linens (towels, sheets, cloth diapers, handkerchiefs, etc.) belonging to the newborn and the new mother must be washed separately from those of the rest of the household, even if the delivery took place in a hospital.

> It's just that one has to take precautions, like I was telling you, that you must not mix the clothes. You have to separate them. With the [same] soap you wash the patient's clothes, well, you must not wash the clothes for them… the older [children][19] (P. D. – Chilcuauta, September 9, 2017).

[19] Original: «*Nomás que hay que tener precauciones, como le decía yo, de que no hay que juntar la ropa. Hay que separarla. Con el jabón que lavas la ropa del paciente, pues no debes de lavar la ropa para ellos… los más grandes*».

> She cannot lift the child, the older one, she cannot be in the bed (with him). And also what I told you about the clothes, mothers have to take many precautions in this regard. Well, always separate the clothes when they are going to wash them. First, they have to wash the children's clothes, always, always. And then, the husband's clothes and, last, the newborn's clothes and the woman's clothes, the one who just gave birth. Because there are places where they wash clothes by hand, so that is where they have to separate the clothes, so to speak. [And with the washing machine?] The same, the same. After they wash there in the washbasin, afterward they must wash the washbasin well with bleach and soap, very, very clean, and scrub it with *omequelite* herb, because this *omequelite* herb helps you a lot for *quemada*[20] (P. B. – Cuetzalan, September 17, 2018).

The practice of not mixing laundry is present in nearly all narratives. However, as with many aspects of traditional medicine, each midwife recommends a different domestic protocol to avoid contagion. In the above interview, for instance, P. B. suggests washing the laundry basin with bleach and even scrubbing it with *omequelite*, a medicinal plant also used during the treatment phase. Another midwife told me it was easier to line the basin with a plastic bag when washing potentially «infected» clothes. In other cases, simply rinsing the basin with water and neutral soap was considered sufficient. Although some women own washing machines, as in the case of P. B. and P. F., I was not able to obtain a clear explanation of the steps to follow when using them; the only constant rule is that laundry must always be washed separately from that of other family members to avoid the risk of transmission.

Baez Cubero (2008) describes a similar ritual among the Indigenous populations of Xolotla and Nauapan (Puebla), where clothing must be washed in a river: flowing water, always clean and always in motion, is thought to prevent contagion. Washing clothes in *manantiales* (springs), where water is stagnant, is strictly forbidden.

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[20] Original: «*No puede levantar al niño, el grandecito, no puede estar en la cama [con él]. Y también lo que te dije de la ropa, las mamás tienen que tener muchas precauciones en este aspecto. Pues, siempre separar la ropa, cuando van a lavar. Primero, tienen que lavar la ropa de los niños, siempre, siempre. Y, ya luego la ropa del marido y, en último, la ropa del recién nacido y la ropa de la mujer, de la recién aliviada. Porque hay lugares que lavan a mano la ropa, entonces allí [es] donde deben de separar la ropa, por decir así. [¿Y con la lavadora?] Igual, igual. Ya después que lavan allí nel lavadero, después deben de lavar bien el lavadero con cloro y jabón, bien bien lavadito y restregarle la hierba del omequelite, porque esta hierba del omequelite te ayuda mucho para la quemada*».

The danger is not limited to the expelled blood or clots during the first weeks of the postpartum period. The mother herself must avoid contact with older children: she must not carry them in her arms or allow them to sleep in her bed. In the case of the husband, although he is believed to be more resistant and may sleep beside his wife, the risk of contagion remains present: in fact, midwives advise against sexual intercourse after childbirth. The length of these restrictions varies depending on the source. Children should not sleep in their mother's bed for at least the first week. The husband should abstain from sexual relations for the entire forty-day postpartum period or ideally for three to six months. Laundry must be washed separately for at least forty days. In some cases, the midwife herself may assist with laundry for a small fee, taking care of the woman's and her family's clothing. According to certain accounts, the mother is considered contagious (in a kind of asymptomatic carrier state) until her regular menstrual cycle resumes.

Possible Etiology, Victims and Blame

Among the Nahua of the Sierra, the onset of illness is generally attributed to identifiable causes. However, because illnesses are often perceived as complex, their etiologies are typically multifactorial: several contributing elements may coexist without necessarily excluding one another. As Lupo (2012: 49-50) summarizes from emic accounts, the causes of illness include:

1. Direct external agents, such as trauma, animal bites, or burns
2. Mechanical dysfunctions of internal organs, as in *caída de mollera* or *empacho*;
3. Thermal imbalances or alterations in body temperature;
4. Qualities of ingested substances;
5. Contagion or transmission through contact;
6. External influences such as intense emotions or social tensions;
7. Intentional acts of harm, often of a magical nature, inflicted by others.

In the case of *quemada*, although symptoms and explanatory frameworks may vary, most traditional healers identified two main causes: contagion through contact and a subsequent thermal imbalance. These factors are embedded in the very name of the illness: it is a symbolic burn.

Significantly, transmission is not limited to direct contact with infected blood. It may also occur through improperly washed clothing, bedsheets, or underwear; through close proximity to the mother or newborn (who is initially considered hot, regardless of gender); or even via inhalation of unpleasant odors linked to poor hygiene. Notably, despite the severity of the condition, supernatural or religious forces are generally absent from local explanations. Unlike illnesses such as *ojaeda*, believed to result from envious stares, or *susto*, associated with fright or emotional shock, *quemada* is framed as a consequence of tangible, material interactions. In Foster's terms, its etiology is predominantly naturalistic rather than personalistic, as illness is attributed to the intrinsic properties of substances rather than to the intentional action of an agent (Foster 1993).

Crucially, *quemada* is not caused by external natural or spiritual agents, nor by spontaneous internal dysfunctions. Rather, it emerges within the domestic sphere and results from failures to observe specific preventive behaviors. In this context, illness is interpreted as a direct consequence of having transgressed established rules and prohibitions, and its symptoms are often viewed as difficult if not impossible to cure. Responsibility, and frequently blame, is attributed to those directly involved. According to nearly all the narratives collected, the culpable party is usually one or more of three figures: the child's mother, the midwife (or, in some cases, the woman's mother-in-law or her own mother), and more rarely, the husband. Most often, blame falls on the woman who failed to maintain cleanliness, who remained in close contact with her children or husband, or who did not follow established norms for washing clothing, linens, and especially underwear. She is perceived as having neglected her family's health. In some cases, responsibility is shared with the midwife or maternal figures who failed to provide adequate support during her vulnerable state. Nevertheless, the mother-wife is typically held primarily, if not exclusively, accountable for the transmission of the illness. The husband, by contrast, is never blamed for causing illness in others; his involvement is only acknowledged if he himself becomes ill. Even then, responsibility tends to be shared, as both partners are considered to have violated the prohibition on sexual relations. Still, in most accounts, the woman bears the greater share of guilt.

> […] I remember I witnessed a case. A couple had their first baby, then they had their second baby, but with little time between them. She had the first baby and then the next year she had the other one. It seems that the woman

> did not observe the *cuarentena*[21] because a year had not yet passed and they already had sexual relations. The woman did not get sick, because she was still tender… but the man got sick, because his baby was born and after six months [the man] got *quemada*. He developed severe malnutrition and his whole [body] began to burn. But the doctors said it was leukemia, but it was caused… well, we as midwives say that it was caused by that, because the woman did not take care of herself and did not observe the *cuarentena*, and because the woman has strong blood and the man weak blood, it attacked him. The man died… what was the use of having two babies so close together, if then there was no one to support them? The grandparents had to support them[22] (P. B. – Cuetzalan, September 17, 2018).

Here, the midwife clearly places blame on the wife: although the husband «did not take care of himself», the woman's failure to observe the quarantine (repeated twice) is framed as the cause of her husband's death and of her children's orphanhood, since «the grandparents had to take care of them». In rare cases, because menstrual blood can also cause *quemada*, some advice abstinence during menstruation. Still, as P. B. told me with a smile, «it would be better, but you can't forbid them everything».

Stories of *quemada*, often shared through personal or familial anecdotes, are nearly always infused with moral overtones. Illness is linked to someone's failure to follow a rule or a healer's guidance. However, one story from my 2018 fieldwork stood out for its tone of compassion:

> I'm telling you, a woman had nowhere to live. They lent her a small house, very small, where she lived with her baby and her daughter. And she had

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21 The *cuarentena* refers to a forty-day postpartum period during which the woman is expected to observe a set of behavioral and hygienic precautions aimed at preventing the transmission of illness (*quemada*) to other household members. These include, among others, the avoidance of close physical contact with older children, the separation of clothing and bedding when washing them, and sexual abstinence.

22 Original: «*[...] me acuerdo de que yo viví un caso. Una pareja tuvo su primer bebé, luego tuvo su segundo bebé, pero muy seguiditos. El primer bebé lo tuvo y luego al año tuvo el otro. Se ve que la señora no hizo la cuarentena porque todavía no pasó el año y ya había relaciones sexuales. No se enfermó la mujer, porque estaba tierna… pero se enfermó el señor, porque así nació su bebé y al medio año se le dio la quemada. Se le dio una desnutrición fuerte y se empezó a quemar todo [el cuerpo]. Pero, los médicos dijeron que era leucemia, pero fue provocado… bueno, nosotras como parteras decimos que fue provocado por eso, porque no se cuidó y no guardó la cuarentena la mujer, y porque la mujer tiene la sangre fuerte y el hombre la sangre débil, la atacó. Falleció el señor… ¿de qué sirvió que tuvo dos bebés así seguiditos, si pues ya no había quien los mantuvieran? Los tuvieron que mantener los abuelitos*».

> nowhere else to sleep. So, they had no space, and they had no hygiene, because they had to go get the water and the woman, they told us, had no help. So, she lost her older girl of about nine years old, because she had no one to help her. And the girl helped her… to make food, to heat coffee, they asked for *tortillas* as gifts, they were given *tortillas*, food… but in the end the girl was affected, because she spent a lot of time with her mother and, I'm telling you, because they did not have adequate personal hygiene. Because they had to go get the water. The woman who had recently delivered and the little girl who would go to bring the water. She carried the water like that for the food… but the girl died with time. She got «burned»[23] (P. B. – Cuetzalan, September 17, 2018).

Although the healer recounting this episode mentions fault in terms of poor hygiene, she also highlights the poverty and hardship faced by the mother. In fact, several interviewees noted how living in cramped spaces, with only one bed or one room, can increase the risk of contagion.

Another uncommon explanation came from a second-generation midwife in her early forties. At the time of the interview, she had a toddler and told me:

> Well, it also depends on the children. If their blood is weak, it affects them more; if their blood is strong, nothing happens. And even more the belief. If one believes that it is going to happen, it happens more, and if one does not believe, nothing happens[24] (P. D. – Chilcuauta, September 9, 2017).

She confirmed the widespread theory about *strong* and *weak* blood but was the only one to reference *belief* as a variable: according to her, *quemada* only occurs if one believes it will. When I asked whether she believed in it

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[23] Original: «*Te digo, una señora no tenía donde vivir. Y entonces le habían prestado una casa chiquita, chiquita, adonde vivían no más ella y su bebé y su niña. Y no tenía adonde acostarse a otro lado. Entonces, porque no tenían espacio, y no tenían higiene, porque tenían que cargar el agua y a la señora, nos contaron, que no la apoyaban. Entonces, perdió a su niña grande de como nueve años, porque no tenía a quien la ayudara. Y la niña la ayudaba… hacerle su comida, calentarle el café, las tortillas las piden regaladas, les regalaban tortillas, comida… pero ya a la niña la afectó, porque estaba mucho con su mamá y, te digo, porque no tenían la higiene personal adecuada. Porque tenían que cargar el agua. La señora recién parida y la niña chiquita que iba a traer el agua. Así cargaba el agua para la comida… pero se murió la niña con el tiempo. Se quemó*».

[24] Original: «*Bueno también depende de los niños. Si la sangre la tiene débil le afecta más, si la sangre la tienen fuerte no pasa nada. Y más la creencia. Si uno cree que eso va a pasar, sucede más y si uno no cree no pasa nada*».

herself, she said she did not, thus implying that her son and husband were not at risk.

A few weeks later, I visited her again and noticed that her child had a rash resembling inflamed vesicles on his chin and neck. She initially diagnosed it as a reaction to an animal or plant and treated it with homemade ointments. When the child developed a low-grade fever (around 37.5-38°C), she grew visibly concerned. Before a private specialist diagnosed it as a mild form of chickenpox, she admitted she feared it might be *quemada*, contradicting her earlier dismissal. Indeed, despite claiming not to believe in the illness, she had offered detailed preventive guidelines during our interview and encouraged others to follow them, just in case.

Quemada is not the only childhood condition in the Sierra Norte grounded in relational and reproductive dynamics. Lupo has described *tzipit* (or *chipilez*) (Lupo 2012: 68-70), an ailment affecting breastfed children when the mother becomes pregnant again (especially if the fetus is of the opposite sex), manifesting in weakness, irritability, and the distinctive nail pain that locally signals relational hostility toward the unborn sibling. A further childhood condition grounded in a different etiological logic is that of *tlazol* (*basura*, garbage) and the so-called *aires de basura* or *ixtlazol* (garbage air), analyzed by Hersch Martínez (1997). In the former, the child's illness is attributed to a moral breach, such as parental infidelity (the blame can be attributed to either parent, depending on who has been unfaithful); in the latter, it may derive from exposure to sexually «heated» or contaminated effluvia without necessarily implying a direct transgression. Although their symbolic mechanisms differ (i.e., thermal excess, relational rivalry, moral pollution) these conditions share with *quemada* an etiological logic in which children's bodies register adult sexual and reproductive conduct.

Local Treatments and Remedies

Traditional Nahua medicine operates through a combination of ritual practices, herbal remedies, and bodily manipulations. In the case of *quemada*, although all these elements may be present, healers tend to place particular emphasis on the therapeutic power of plants. Herbal treatments are not only central, but often regarded as the most effective approach to address the illness. Because *quemada* is relatively rare yet potentially fatal, each healer guards their own herbal knowledge and treatment meth-

ods with great care. Nevertheless, the severity of the illness often leads to collaboration and mutual consultation among healers. This sense of *compañerismo* has produced notable dynamics, particularly in shaping the localized circulation of specific remedies.

For instance, the bark of *nantzincuohuit* or mother tree (*Byrsonima crassifolia*) is employed by midwives in San Andrés Tzicuilan and nearby communities such as Cuauhtamazaco and Tenango, despite its limited accessibility, as the tree grows only in remote, uninhabited mountain areas.

Treatments and understandings of *quemada* vary considerably across the municipality. While remedies for more common ailments tend to be relatively standardized across the region, the herbs and combinations used for *quemada* are as numerous as the healers themselves. These remedies are mainly used to treat those who have been affected by the *quemada* (such as the older children in the household or the husband), however they are also used preventively and the *puerpera* may be subjected to them as well.

A particularly intriguing aspect concerns the thermal quality attributed to these medicinal plants. As previously noted, *quemada* is caused by a thermal imbalance, specifically an excess of internal heat (retained blood becomes dangerously hot and, through direct or indirect contact, causes an internal burn). One might therefore expect the use of cooling plants to restore balance to the child or man who came into contact with the «burning blood». However, many of the herbs employed in treatment are themselves classified as hot. During and after childbirth, the woman herself turns even colder, due to the loss of the hot blood, and she as well must be heated up with hot remedies. A prime example is *omequelite*, a plant considered extremely hot and to be handled with caution, yet widely used by midwives for its perceived potency. Despite its intensity, *omequelite* was the only herb mentioned unanimously by all interviewees, followed closely by *cempoalxochit* (*Tagetes erecta*, also known *flor de muerto*).

When I asked about the necessary thermal properties of plants used to treat *quemada*, the answer was almost always the same:

> [The plants for quemada, what qualities do they have? Are they hot, cold…?] Hot. *Omequelite*, laurel [*Laurus nobilis*], eucalyptus [*Eucalyptus globulus*]… [Why are hot plants used?] Because we say that the heat goes inside. So, if you use cold, it stays there. Because when they are burned they begin to drink a lot of cold water, cold. So, we bathe them with hot plants on top, so that the heat

> [counteracts] what is inside. That is why they are also given *temazcal* baths[25] (P. C. – Cuetzalan, September 21, 2018).

Only one interviewee offered a different view, arguing that cold plants were required because the disease was, in fact, hot:

> [And the remedies, the plants that are used, are they hot or cold?] They are cold! They have to be cold. All the herbs have to be something cold. Because the illness is hot. That's how it is handled[26] (P. E. – Cuetzalan, September 24, 2018).

Despite this last interview, the evidence collected suggests that local therapeutic reasoning cannot be fully explained through the logic of humoral opposition nor only through the principle of sympathetic correspondence, such as those described by Lupo (2012: 54-55) in reference to remedies grounded in analogical resemblance (e.g., the wart-like plant used to treat warts, or the opossum's tail employed to facilitate childbirth). While humoral medicine often prescribes remedies of opposite quality (cold for hot ailments and *vice versa*), in the case of *quemada* the use of «hot» plants may respond to a different rationale. Interviewees repeatedly describe the body as permeable, emphasizing that heat may «enter inside», remain trapped or be forced outward through the opening of pores and the release of gas. A comparable understanding of heat emerges in local explanations of measles: when the eruptive process has begun, covering the child is believed to drive the heat inward («*se les mete por dentro*»), concentrating it internally and potentially leading to death; therapeutic recommendations therefore aim to let the eruption complete its outward course while regulating internal heat through the ingestion of fresh substances[27]. In *quemada*, however, heat is not conceived as a quality to be

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[25] Original: «*[Las plantas para la quemada, ¿qué calidades tienen? ¿Son calientes, frías…?] Calientes. El* omequelite*, el laurel [*Laurus nobilis*], el eucalipto [*Eucalyptus globulus*]… [¿Por qué se usan plantas calientes?] Porque decimos que lo caliente se le va por dentro. Entonces, si tú utilizas frío allá se queda. Porque cuando están quemados empiezan a tomar mucha agua fría, fría. Entonces, bañarlos con plantas calientes encima, para que lo caliente lo que está por dentro. Por eso también se les da baños de temazcal*».

[26] Original: «*[¿Y los remedios, las plantas que se usan, son calientes o frías?] ¡Son frías! Tienen que ser frías. Toda la hierba tiene que ser algo frío. Porque la enfermedad es caliente. Así se maneja*».

[27] The measles example was added thanks to a personal communication by Alessandro Lupo.

counterbalanced, but as a force that may accumulate or become trapped inside the body, growing more dangerous if not expelled. The relevant concern in both cases is not simply the opposition between hot and cold, but the direction and movement of heat within the body. In this perspective, the application of «hot» remedies in *quemada* aims to mobilize and expel the pathological heat already lodged within. The therapeutic objective is not simple opposition nor mere resemblance, but the proper movement, direction and final externalization of heat.

The use of medicinal plants in the treatment of *quemada* reflects both the perceived nature of the illness and the characteristics of the affected individual. Although the condition frequently manifests through visible signs on the skin (such as swelling and yellowish discoloration), it is not conceptualized as a superficial disorder. Rather, it is understood as a pathological heat lodged within the body that must be mobilized and expelled. For this reason, the primary therapeutic intervention for the affected child or man consists of repeated external baths with specially prepared herbal infusions, administered over an extended period, often lasting several weeks. For older children or adults, more intensive treatments may be adopted, such as the oral administration of herbal teas or infusions. These remedies, while effective, are considered more potent and require careful preparation. In certain cases, steam baths in a *temazcal* are employed, where heat and aromatic plants are believed to aid in the purging of harmful substances from the body. Such treatments, however, are considered too intense for infants and are therefore reserved for individuals deemed strong enough to withstand them.

> But the mother brings the child to us. Then we say, «I am going to cure your child, I am going to cure him… but yes, every day, every day you have to bathe him with these herbs that we boil». Sometimes we don't have them… but there is a tree, its bark, we make little pieces and then we boil them and with this we bathe the baby. Every day, up to a month, but always removing, removing… it does not go away quickly, it is slow. We, with these herbs and the bark of this… it is called *nantzincuohuit*… we chop this and boil it. With this we remove everything[28] (P. F. – Cuetzalan, September 26, 2018).

[28] Original: «*Pero lleva el niño la mamá con nosotros. Entonces, nosotros decimos "Yo te voy a curar el niño, lo voy a curar… pero qué tal, sí, diario, diario para bañarlo con estas hierbitas que hervimos". A veces no tenemos… pero hay un árbol, su cáscara, hacemos pedacitos y ya hervimos y con esto bañamos al bebé. Pero diario, hasta un mes, pero siempre*

The structure and duration of treatment for *quemada* vary according to each healer's knowledge, experience, and personal practice. Some recommend daily herbal baths, while others suggest intervals of three or even eight days. Similar variation applies to other therapeutic interventions, including the *temazcal*, massages, and herbal infusions. Given this diversity, I found it useful to document a full treatment regimen as described by P. B., a healer from San Andrés Tzicuilan who now practices in central Cuetzalan. Her treatment plan includes a series of baths, teas, and manual therapies, and typically costs around 500 pesos in 2018, excluding the price of herbs and materials, which are either collected fresh by the patient or acquired from the healer's own supply.

> Well, yes, first you begin to massage him. You begin to massage the child from his little head, all the way well to his stomach. From his feet to his stomach, from the tips of his hands, the same, to the heart. You begin to massage him gently, because his intestine begins to loosen. Because from the same swelling he has, it is inflamed, so all his intestine is tight. So, one goes to massage him in circles, on the stomach, about twenty times like that, gently, gently. And he is massaged with rosemary oil. I have rosemary oil, with that I begin to massage all his stomach very, very well, until it loosens. And when one finishes massaging him, the children begin to release a lot of gas. Why? Because the stomach is full, even though they begin to swell, to swell. Even their little cheeks become like that, like, shiny. And I'm telling you, they begin to get cold. So, you have to massage his whole body gently, well, well. And give him his remedy for *aire* and for *susto* and then you wrap them. There are seven cures, because *quemada* is very dangerous. Every two days. If you came on Monday, then Wednesday, then Friday… like that. And also [one does] the baths. The baths have to be every eight days, three baths, every eight days. [*And the* temazcal?] The *temazcal* every third day, so to speak. If it is an adult person, we can put them in the *temazcal*. Let them come to take their three *temazcal* baths with herbal water, because there, when you go into the *temazcal*, what the *temazcal* does, it purifies, it detoxifies your body, then it opens the pores. Because it opens the pores, then it begins to take out all the illnesses. [*And do the baths have a recipe? For example, a little bunch of this, one of the other…*] Ah, you can put, for example, five branches of *cempoalxochit*, five branches of rue [*Ruta graveolens*], five branches of basil [*Ocimum basilicum*], about ten branches of rosemary [*Salvia rosmarinus*[29]], because rosemary is very good. Also,

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quitando, quitando… no va rápido, es despacio. Nosotros con estas hierbas y la cáscara de este… se llama nantzincuohuit *… esto picamos y hervimos. Con esto quitamos todo*».

[29] Formerly: *Rosmarinus officinalis*.

> Santa María [*Piper auritum*], the leaves of peach [*Prunus persica*], *zacapale* [*Cuscuta umbellata*], *muitle* [*Justicia spicigera*]. All that. You make a mixture of herbs and it is boiled. [*In, more or less, how much water?*] In five liters of water or more. Seven liters, because it has to boil well, or a bucket of twenty liters, there you put all the herbs, all of them. And you boil them. But the water, you are going to boil it, but you are not going to be hitting it. Rather, the water, just as you boil it, you take it off, you cover it with something and it cools by itself. And when you feel that the water is already ready for you to bathe, when you cannot stand it and then it is done[30] (P. B. – Cuetzalan, September 17, 2018).

At the General Hospital, traditional medicine has been partially institutionalized within the *Módulo de Medicina Tradicional*. In this setting, therapeutic practice is commonly organized around what practitioners describe as *tres atenciones*: a locally articulated triad that structures their intervention. These include *rezo* (a prayer addressed to the patient's chosen

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[30] Original: «*Pues, sí, primero se le empieza a sobar. Se le empieza a sobar al niño de su cabecita, todo bien a su estómago. De sus pies a su estómago, de la punta de las manos, igual, al corazón. Se le empieza a sobar bonito, porque se le empieza a aflojar el intestino. Porque de la misma hinchazón que tiene, está inflamado, así todo su intestino está apretado. Entonces uno va a sobarle como círculo, en el estómago, como unas veinte veces así, bonito, bonito. Y se le soba con aceite de romero. Yo tengo el aceite de romero, con eso les empiezo a sobar bien bien todo su estómago, hasta aflojarle. Ya cuando uno le termina de sobar, los niños empiezan a sacar mucho gas. ¿Por qué? Porque el estómago está repleto, aunque se empiezan a hinchar, a hinchar. Hasta los cachetitos se les pone así, como, brilloso. Y te digo, se empiezan a enfriar. Así hay que sobarle bonito todo el cuerpo, bien, bien. Y echarle su remedio de aire y de susto y, ya, les enredas. Son siete curaciones, porque la quemada es muy peligrosa. Cada dos días. Por, si viniste el lunes, luego [vienes] el miércoles, luego el viernes… así. Y también los baños. Los baños tienen que ser cada ocho días, tres baños, cada ocho días. [¿Y el temazcal?] El temazcal cada tercer día, por decir así. Como si es gente grande, ya lo podemos meter en el temazcal. Que se venga a dar sus tres baños de temazcal con agua de hierba, porque, ahí, cuando te metes al temazcal, lo que hace el temazcal, purifica, te desintoxica tu cuerpo, entonces te abre los poros. Porque te abre los poros, entonces ya te empieza a sacar todas las enfermedades. [¿Y los baños tienen una receta? Por decir, un ramito de éste, uno del otro…] Ah, se le puede poner, por decir, cinco ramas de cempoalxochit, cinco ramas de ruda [*Ruta graveolens*], cinco ramas de albahácar [*Ocimum basilicum*], unas diez ramas de romero [*Salvia rosmarinus*], porque es muy bueno el romero. Este, la Santa María, también, las hojas de durazno [*Prunus persica*], el* zacapale *[*Cuscuta umbellata*], el* muitle *[*Justicia spicigera*]. Todo eso. Hace un conjunto de hierbas y se hierve. [En, más o menos, ¿cuánta agua?] En los cinco litros de agua o más. Siete litros, porque tiene que hervir bien o una cubeta de veinte litros, allí pones todas las hierbas, todas. Ya y las hierves. Pero el agua, la vas a hervir, pero no la vas a estar golpeando. Sino que el agua, así como la hierves, así la sacas, la tapas con algo y él solito que se enfría. Y cuando vas a sentir el agua que ya está lista para que te bañes, como no lo aguantes y, ya, que está echo».*

saint), *limpia* (a purification ritual using plants and aromatic oils), and *sobada* (therapeutic massage). During the *sobada*, the healer may simulate «rubbing away» impurities with the hands, physically enacting the removal of illness not only from the body's surface but also from within, as if drawing the pathogenic heat outward.

Given the widespread availability of healthcare services in the region (whether public, private, or through *similares* clinics[31]) any analysis of traditional medical practices must take into account their constant interaction with biomedical medicine. Nonetheless, despite the increasing use of clinics and hospitals, *quemada* is rarely brought to biomedical professionals. According to many mothers, doctors either dismiss their concerns or focus exclusively on visible symptoms, without providing a culturally meaningful diagnosis or a treatment capable of addressing the condition in its entirety.

> [Are there people who prefer to take a child sick with *quemada* to the doctor, privately, or to the hospital?] No, because the doctor is not going to cure him. It has to be with the *curandero*, with the *curandera*. [And if someone takes him, what will the doctor say? Why will he not cure him?] Because he will say that he has nothing, that he is only swollen. So then, they do not know why he is like that. I'm telling you, because when the child begins to swell his skin looks almost shiny. And there is a color that is somewhat yellowish[32] (P. B. – Cuetzalan, September 17, 2018).

During my 2018 fieldwork, I also attempted to interview several biomedical professionals. One private doctor admitted not understanding what I meant by *quemada*. Another, working at a *similares* clinic, simply stated: «They don't bring them to me; they take them to the midwives or healers». A third, also a private doctor, explained:

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[31] In Mexico, *médicos similares* refers to low-cost private clinics often located adjacent to pharmacies (notably those associated with *Farmacias Similares*). These clinics offer basic medical consultations at reduced prices and operate alongside both fully private practitioners (*particulares*) and public healthcare services.

[32] Original: «*[¿Hay personas que prefieren llevar el niño enfermo de quemada al doctor, como particular, o al hospital?] No, porque el doctor no te lo va a curar. Tiene que ser con el curandero, con la curandera. [¿Y si uno lo lleva, qué va a decir el doctor? ¿Por qué no lo va a curar?] Porque va a decir que no tiene nada, que no más está hinchado. Entonces ya, ellos no saben por qué está así. Te digo, porque cuando el niño se empieza a hinchar se le ve la piel casi brillosa. Y hay el color que es medio amarillento*».

> […] I have not seen the symptoms. I was telling you, we monitor him, maybe. Antibiotics, if necessary, but really patients like that have not come to me. Most patients take precautions about that, because they already know. Sometimes, from the grandmothers, from the aunts, from the mother who tells them, «Be careful with this. Don't let the child come close to you». Or even when they are menstruating. «Don't get too close to the children!» [laughs] You are going to burn everyone![33] (D. A. – Cuetzalan, October 1, 2018).

This enduring preference for traditional healers, even in cases like *quemada* where symptoms are clearly visible and potentially life-threatening, reflects not only epistemological distance but also a persistent lack of trust in biomedical practitioners. Biomedical doctors tend to display a paternalistic attitude, failing to engage seriously with indigenous explanatory models. This perceived detachment often leads to diagnostic dismissal or superficial treatment, reinforcing the idea that biomedical professionals «don't know why they "are like that"».

The problem is further exacerbated by linguistic and cultural barriers. Physicians at the General Hospital are frequently from outside the region and never speak Nahuatl, the primary language in many rural communities. As a result, they are unable to access local categories of illness or communicate effectively with their patients. Even when doctors are from Cuetzalan, the high turnover and transitory nature of medical personnel in public institutions make it difficult to establish relationships of continuity and trust, a critical component in indigenous healing contexts[34].

Importantly, this lack of engagement is not interpreted by local communities as simply a technical or systemic failure, but as a sign that biomedicine is structurally incapable of treating illnesses with moral, emotional, or supernatural dimensions. Nahua medicine does not deny the

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[33] Original: « *[...] no he visto las síntomas. Te decía, le damos seguimiento, a lo mejor. Antibióticos si es necesario, pero realmente no me han llegado pacientes así. La mayoría de las pacientes tienen precaución en eso, porque ya lo saben. A veces, desde las abuelitas, desde las tías, de la mamá que les dice "Ten cuidado en esto. Que el niño no se te acerque". O hasta cuando están menstruando. "¡No te pegues tanto con los niños!" [*he laughs*] ¡Vas a quemar a todo mundo!* »

[34] Even when physicians are native to Cuetzalan, this does not necessarily translate into engagement with traditional medicine. They rarely display curiosity toward indigenous therapeutic systems, nor do they actively seek dialogue with ethnographic research on the region. This epistemic asymmetry further widens the gap between institutional medicine and local explanatory models.

legitimacy of biomedical diagnoses. Indeed, midwives and healers often incorporate biomedical concepts into their own reasoning, especially those who work in the traditional section of the hospital and undergo frequent training programs (Macchiarelli 2024). Moreover, when they themselves fall ill, they frequently turn to biomedical services and synthetic drugs, acknowledging their efficacy in specific contexts. However, they maintain a clear division of therapeutic competence. By traditional healers and the Nahua people, only traditional medicine is seen as capable of addressing conditions linked to social transgressions or spiritual imbalance. In the case of *susto*, for example, only a traditional practitioner can retrieve the *ecahuil* (the soul's shadow) from the earth or the elements (fire, water, etc.) in which it is retained (Signorini 1988; Signorini & Lupo 1989).

That *quemada* is not entrusted to biomedical professionals, despite its observable and serious physical symptoms, is thus telling. It suggests that the illness is locally understood not merely as a somatic disturbance, but as an embodied consequence of moral and relational imbalance. An imbalance that requires forms of intervention grounded in etiological reasoning, ritual precaution, and social regulation, rather than just biomedical treatment. The common response: «the doctor doesn't cure this» should not be read simply as pragmatic skepticism, but as an assertion of cultural boundaries of therapeutic legitimacy, shaped by long histories of marginalization and epistemic exclusion.

Conclusion

Quemada in Cuetzalan exemplifies how certain Mesoamerican illness categories function primarily as etiological frameworks rather than standardized syndromes. Its diagnostic logic, which is centered on the burning power of postpartum or menstrual blood, guides interpretations of illness not only in physiological but also in moral and relational terms. Responsibility is frequently gendered: women are expected to regulate bodily heat, maintain hygienic protocols, and protect vulnerable household members. When these expectations fail, blame is often swift, revealing how illness becomes a site where social order is contested and reaffirmed.

While some midwives integrate biomedical notions, such as likening *quemada* to scarlet fever or leukemia, these interpretations do not displace the indigenous logic rooted in thermal balance, moral transgression, and relational care. Indeed, *quemada* persists despite the expansion of biomed-

ical services precisely because it continues to provide a meaningful, actionable model for understanding and managing illness.

This ethnography also highlights the limitations of biomedicine in engaging with therapeutic frameworks that fall outside its epistemological premises. Conversations with hospital and private physicians revealed a general skepticism toward traditional practices and a limited recognition of midwives' therapeutic authority. Although institutional programs formally promote collaboration through the traditional medicine module, such cooperation remains asymmetrical: midwives often act as linguistic and cultural mediators for Spanish-speaking physicians who do not speak Nahuatl, yet their knowledge is rarely comprehended or accepted and is thus not integrated into their clinical process (Macchiarelli 2024). In this context, the refusal to entrust *quemada* to doctors is not simply a matter of access, but reflects the perception that biomedical practitioners neither fully understand nor are inclined to engage with its underlying logic. As midwives and families insist: «el doctor no te lo va a curar».

An alternative interpretation, which also emerged during the revision process and had initially been considered but not fully developed due to lack of ethnographic evidence, is that *quemada* may function not only as an etiological framework but also as a culturally codified set of practices that indirectly protects the postpartum woman and the newborn. From this perspective, the numerous warnings concerning bodily exposure, sexual relations too soon after childbirth to allow proper healing, and excessive labor could be understood as regulating the recovery period and preserving maternal strength. The present ethnography, however, does not provide sufficient material to substantiate this reading, nor did local actors articulate (and likely would not articulate) these prescriptions explicitly in protective terms. Nonetheless, this hypothesis invites further reflection on how systems that frame female blood as dangerous may simultaneously operate as mechanisms of care and protection.

Moreover, *quemada* offers a clear example of how Nahua medicine cannot be reduced to simple thermal opposition or to the use of sympathetic remedies. Ailment causes a force (heat in this case) that is as something that may accumulate, become lodged within the body and must be mobilized and expelled. The body itself is understood as permeable and dynamic, a site through which heat can enter, circulate, and be externalized.

In peripheral regions such as the Sierra Norte de Puebla, epistemological distance is compounded by structural fragility. Biomedical services

operate with scarce resources, high personnel turnover, and limited time for sustained dialogue. Clinical encounters frequently reduce complex experiences of illness to observable symptoms, while serious communicative and relational gaps persist, especially in contexts marked by poverty and linguistic marginalization. In this setting, the holistic orientation of Nahua medicine does not merely reflect cultural continuity; it also compensates for the practical and relational shortcomings of a biomedical system that, in these areas, often functions with visible limitations.

Ultimately, *quemada* challenges enduring assumptions that frame Indigenous medicine as residual, folkloric, or symbolic. It reveals instead a dynamic and coherent epistemological system that is fully capable of producing diagnoses, guiding therapeutic action, and articulating a theory of health that remains vital today. Recognizing this forces us to rethink what counts as legitimate medical knowledge, and to acknowledge that healing, in Indigenous contexts, is always medical, social, and moral at once.

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