

Ethnomedicine in Ammatoa maternal care: Lexicon, semantic categories, and speech practices

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Abstract

This article maps the maternal–neonatal ethnomedicine of the Ammatoa indigenous community in Kajang, detailing lexicon, semantic categories, and speech practices that scaffold mother–infant care. Based on an inventory of 26 medicinal plants and practice notes, terms are grouped into four clusters: (1) materials/remedies, (2) actions, (3) prayers, and (4) symptoms. Findings show that the local pharmacopeia is tightly coupled with ritual utterances; water ‘bound’ by prayer soothes the mother, underpins household hygiene, and frames a stepwise pathway from comfort care to referral when danger signs emerge. The coexistence of sanro pammanak (traditional birth attendant) and midwife indicates a practical division of labor, sanro pammanak on ritual/comfort, midwife on clinical actions, while the family, especially the husband, supports logistics and decision-making. Linguistically, the lexicon is transmitted in Konjo interspersed with Indonesian, functioning not only as labels but as a social protocol that orchestrates recovery rhythm and referral compliance. Practical implications include a bilingual glossary and culturally attuned health communication materials for mother–infant care.

Keywords: *Ammatoa Kajang, Ethnomedicine, Maternal Health, Lexicon, Performative Language*

1. Introduction

Maternal health in indigenous communities is often grounded in a repertoire of ethnomedicine that combines plant-based preparations, household care practices, and ritual speech that both soothes and guides action (Bacciaglia et al., 2023; Busro et al., 2024). In everyday care, language is not merely a conduit for knowledge; it is performative. Prayers, permissions, and prohibitions sequence what is done, mark the point at which home care should cease, and trigger referral to clinical services. By contrast, biomedical services prioritize safety and early detection of danger signs through effective monitoring, early

warning systems, and regular postnatal check-ups (Putri et al., 2023; Slezak et al., 2022). Gaps commonly arise when these two knowledge regimes do not translate into one another, even though first responses and decisions typically occur at home, in local languages and norms.

Existing scholarship on these issues remains segmented; although linguistic anthropology offers detailed accounts of how people talk, interpret, and negotiate illness, these findings rarely enter the design of health-communication tools, which are still dominated by biomedical and behavioural templates (Mushaandja, 2025). In addition, most anthropolinguistic work, including in Indonesia, has concentrated on describing ritual texts, narrative performance, language ideologies, and identity or power relations in interaction (Fitriani, 2018; Rinaldi et al., 2018), rather than translating those insights into operational models for clinical or community health communication. Ethnobotanical studies tend to catalogue plants and their uses (Afzal et al., 2024; Girmaw et al., 2023; Makombe et al., 2023). Maternal-health studies center on clinical standards, service coverage, and partnerships between health workers and traditional healers (Mogi et al., 2024; Zullo et al., 2023). Few studies integrate all three into an operational model that maps the ethnomedicinal lexicon (materials, actions, implements), explicates the performative functions of speech (prayer, permission, prohibition) that legitimate or withhold actions, and translates these elements into a stepwise decision pathway from household care to clinical referral. This gap contributes to health-communication interventions that lack cultural acceptability or, conversely, to local practices that proceed without explicit safety safeguards.

The Ammatoa indigenous community provides a critical case for addressing this gap. Residing in Tana Toa Village, Kajang Sub-district, Bulukumba, South Sulawesi, the community's social and ecological life is guided by *Pasang ri Kajang*, an oral customary law that governs human–nature harmony through a triadic sanction system, prohibits forest destruction, regulates honey harvesting, and disciplines water use (Ningsih et al., 2021; Nur et al., 2022; Sartika et al., 2024). Even house orientation is ordered to safeguard sacred zones (Sampean & Sjaf, 2021). Cultural identity is enacted through the Konjo language, both a heritage language and the principal medium for healing incantations (*baca-baca*), predominantly Konjo while incorporating Arabic, Bugis, Makassar, and Indonesian elements (Ningsih et al., 2023). Illness is understood along natural, magical, and spiritual lines and is treated with prayer and locally sourced plant remedies. The vitality of Konjo, closely tied to adherence to pasang, supports the everyday continuity of traditional care knowledge (Juhannis et al., 2021; Ningsih, et al., 2021).

This study links the ethnomedicinal lexicon directly to the performative functions of language within a care-seeking decision pathway. Rather than treating the lexicon as a list of labels, it is approached as a social protocol enacted through speech acts and ordered practices. Thus, the study pursues two objectives. First, it inventories and models the semantic categories of the maternal–neonatal ethnomedicinal lexicon. Second, it analyzes speech practices as performative acts that sequence care and establish compliance and referral thresholds. Overall, the study formalizes the linkage among lexicon, speech acts, and decision pathways so that the lexicon functions as an operational social protocol aligned with clinical safety and adaptable for culturally attuned health-communication materials.

2. Theoretical Framework

2.1 Ethnomedicine and the ecology of care knowledge

Ethnomedicine represents a complex, adaptive system of health knowledge deeply intertwined with ecological contexts and environmental interactions. The evidence from multiple studies reveals that ethnomedical systems are dynamic social-ecological structures that respond to environmental changes (Jan et al., 2023). Researchers have documented how these systems depend on natural environments, with ecological conditions directly influencing medical practices and knowledge transmission (Manzoor et al., 2023; Silalahi et al., 2020).

Ethnomedicine involves the study of cultural conceptions of health and illness, traditional medical practices, and their integration with other systems. It is not static but continuously evolving, incorporating innovations and adapting to challenges like environmental degradation and technological change. Local ecological knowledge plays a crucial role in understanding these resilient healthcare systems, and anthropological research on traditional medicine has documented how indigenous communities sustain health practices through intricate relationships with their natural surroundings, while simultaneously underscoring the need for more interdisciplinary work to clarify its contributions to human health and to the documentation of Indigenous medical knowledge (Afzal et al., 2024; Triratnawati, 2017).

2.2 Ethnolinguistics and cultural semantics

Ethnolinguistics is the study of how language relates to culture and ethnicity, focusing on how abstract concepts such as truth, love, hate, and war are expressed across different cultures and languages (Underhill, 2012). This field explores the intricate relationship between language and cultural identity, examining how language functions as a marker of cultural belonging and how it shapes and is shaped by cultural and ethnic groups (Zhanalina et al., 2024).

Ethnolinguistics and cultural semantics offer an operational path from words to practice by pairing lexical elicitation with cross-translatable paraphrase. In the Natural Semantic Metalanguage (NSM) tradition, analysts model meanings using a small set of semantic primes such as someone, body, feel, do, because, can, and culture-specific, allowing comparison across languages without erasing local distinctions (Goddard, 2008; Wearing, 2009). This fine-grained semantic approach resonates with Indonesian linguistic-ethnographic work on ritual speech and mantras, for example, (Fitriani, 2018) analysis of formulaic expressions in healing practices, which likewise seeks to capture culture-specific meanings while preserving locally salient contrasts. An ethnolinguistic study of healing spells used by *dukun* in Lamongan describes their poetic form, semantic organization, and ritual functions (Yazidiy et al., 2022). Complementing these accounts, an interpretive-phenomenological study of healing mantras in the Ammatoa Kajang community shows how *baca-baca* in Konjo operate simultaneously as traditional therapeutics and as a strategy of Konjo language maintenance: the mantras mix Konjo with Arabic Qur'anic phrases and other regional languages yet retain Konjo as the dominant code, encode a

tripartite classification of illness into natural, magical, and supernatural causes, and are transmitted orally within *sanro* lineages in ways now threatened by declining intergenerational uptake (Ningsih et al., 2023) Viewing illness as culturally constituted meaning shifts comparison from assumed biomedical equivalence to explanatory models that people use to interpret causes, decide “what to do next,” and allocate authority. Classic and continuing work in medical anthropology and cognitive psychology demonstrates that these models vary within cultures and shape compliance, care-seeking, and hand-offs (Kleinman et al., 1978).

Linking semantics to action, pragmatic theory treats prayers, permissions, and prohibitions as performative speech acts whose force depends on recognizable formulas, authorized speakers, settings (felicity conditions), and community uptake. Recent formal accounts model how performatives update social states (not just information), helping explain why water-anchored prayers can license or withhold steps and set stop/go/referral thresholds in maternal care (Krifka, 2024).

2.3 Language performativity

Drawing on speech-act theory (Jr Mahinay Mabaquiao & Mabaquiao, 2018), language performativity denotes the capacity of utterances to *do* things, to enact decisions and reshape social reality, rather than merely describe it (Harman & Zhang, 2015). Performativity provides a foundational framework in linguistic anthropology for showing how language does not just reflect society but helps make it (Henry & Hall, 2025). In care settings, this means speech can authorize, constrain, or advance action.

Performatives operate through three interlocking dimensions: (i) illocutionary force (directives, permissions, prohibitions, declarations), (ii) felicity conditions (an authorized speaker using a recognized formula in the right setting), and (iii) uptake, the audience’s recognition that turns words into deeds. Their efficacy is embodied: voice quality, rhythm, touch, gaze, and the handling of objects (water, cloth, tools) index roles and authority, aligning bodies and expectations (Toisuta & Aritonang, 2024). Through repetition and ritualization, formulas acquire deontic weight, becoming social protocols that license or withhold specific remedies, set stop/go thresholds, shift accountability (“we will refer now”), and regulate emotion and pain. Thus, performative speech does not merely symbolize care; it organizes attention, coordinates action, and sequences the pathway from comfort measures to escalation and referral.

Extending this lens, linguistic anthropology shows that ritualized speech does not merely denote states of affairs but indexes roles, rights, and obligations, thereby anchoring social action. Classic work on indexicality demonstrates how formulaic utterances position speakers and addressees within an actionable order (e.g., who may authorize, who must comply). In Indonesia, studies of ritual speech document socially authorized forms that allocate authority and sequence collective action, illustrating how recognized formulas become conditions for efficacy rather than symbolic add-ons (Kasmawati et al., 2025). Taken together, with broader insights on orality and formulaic performance in organizing social life, these threads motivate a performativity-informed approach that treats the ethnomedicinal lexicon as an action-guiding protocol, in which authorized prayers,

permissions, and prohibitions function as deontic signals for stopping, continuing, or referring within maternal–neonatal care.

3. Research Method

This study employed a qualitative phenomenological design to illuminate the lived meanings of maternal ethnomedicine and speech practices within the Ammatoa Indigenous community, Bulukumba Regency, South Sulawesi, Indonesia. This method is used to describe and interpret lived experience as it is lived, attending to how meaning is constituted through language, embodiment, time, space, and relations (Hultgren, 1990).

Participants were recruited purposively and expanded through snowball sampling. They included *sanro pammanak* (traditional birth attendant), midwife, tribe elders, the head of the village, and mothers (pregnant, labour, and postpartum), as well as husbands or household caregivers (see table 1). Inclusion criteria were residence or regular activity within the customary territory, direct involvement in the practice or transmission of relevant terms, and willingness to provide informed consent.

Table 1. Informant Characteristic

Informant's Characteristics	Frequency (N)
Age (Years)	Range 17-70
Job	Traditional midwife = 2
	Midwife = 1
	Tribe elder = 3
	Housewife = 5
	Head of Village = 1
	Farmer = 3
Education	Primary School = 3
	Secondary School = 9
	Diploma = 1
	Bachelor = 2
Sex	Female = 8
	Male = 7

Data were collected through in-depth, semi-structured interviews conducted in Konjo–Indonesian. The interviews elicited (a) local plant names and spelling variants alongside the parts used, (b) modes of preparation and administration (e.g., decoction, poultice, rubbing, ingestion), (c) indicated maternal–neonatal phases (pregnancy, childbirth, postpartum, lactation, infancy), (d) terms for symptoms and bodily sensations, and (e) the vocabulary of oral rules such as prayers, permissions, and prohibitions, that commonly accompany use.

Audio data were transcribed verbatim and organized into lexical entries comprising the lemma in Konjo, any variants, a brief gloss in Indonesian/English, the semantic domain (materials, actions, implements, or symptoms), the phase of use, a concise note on application, and collocations of speech acts (for example, typical prayer formulas or rule expressions). Orthographic variants were standardized through normalization while preserving alternative forms in a dedicated “variant” field.

Analysis proceeded in three stages. First, a thematic–lexical pass extracted terms from transcripts and documents to compile the lexicon. Second, a cultural–semantic grouping organized entries by domain and function, namely prevention, recovery, infant protection; materials versus actions versus implements versus symptoms, and by phase (pregnancy, childbirth, postpartum, lactation, infancy). Third, a qualitative pragmatic–performative analysis linked lexical entries to their accompanying speech acts (prayer, permission, prohibition) to understand the sequencing of care and the articulated thresholds for cessation of home treatment or referral.

Trustworthiness was supported through source triangulation across household actors and Sandro pammanak, an audit trail documenting decisions in orthographic normalization, and clarification of spellings and meanings with key informants. The study adhered to procedures for informed consent and anonymization, and placed explicit limits on the publication of sensitive ritual materials in line with the American Anthropological Association Code of Ethics and the Linguistic Society of America’s ethical guidelines. In particular, *baca-baca* formulas are not reproduced in this article; the *sanro pammanak* deliberately did not disclose the full wording, because in their belief, the efficacy of the *baca-baca* depends on it not being shared beyond authorized circles. Out of respect for this restriction, only paraphrased descriptions of function and context are presented here.

4. Findings and Discussions

4.1 Lexicon and cultural–semantic organization

The corpus of interviews and plant-use documentation consolidates into a coherent repertoire of maternal–neonatal care expressed through locally anchored terminology. After normalizing variants, entries were grouped into four cultural–semantic domains and layered with a pragmatic speech-act category that accompanies use. Each item is tagged by phase of application (antenatal, in-labour, postpartum, lactation, newborn) and typical preparation/administration. Meanings are carried by collocations (preparation method, body locus, timing) and by the performative status of utterances that authorize, constrain, or advance care. Recurrent patterns include phase specificity, the coupling of substances

with non-pharmacological routines, and the presence of stop/go triggers that orient escalation to referral.

Within this organization, the Materials domain comprises topical, oral, and bathing preparations aligned with distinct maternal/neonatal aims; Actions covers non-pharmacological routines that modulate comfort, flow, and recovery; Devices/props index implements that support positioning and handling; and Symptoms/sensations provide cues for continuation, pause, or escalation. The Speech-act layer functions as a procedural scaffold that sequences steps and publicizes accountability across actors. Table 2 summarizes representative entries from each domain and their phase-specific functions.

Table 2. Ethnomedicine lexicon for maternal–neonatal care

Domain	Local Term (Konjo)	Gloss/Use	Phase	Notes
Material	<i>Lambere susu</i>	Topical Leaf applied to breasts to promote milk flow	Postpartum (lactation)	Used for 2–3 days as comfortable; discontinued once milk let-down is achieved
Material	<i>Kahu-kahu borong</i>	A mucilaginous herbal drink used as a ‘birth facilitator.’	Labor	Shaken until slimy, then drunk; given when labour slows or stalls
Material	<i>Tahasa bassi</i>	Decoction for uterine cleansing; can also be applied to boils	Post-miscarriage / postpartum	Local topical application for boils; internal use monitored for safety
Material	<i>Kaca-kaca / Ci'nong</i>	Herbal preparation for newborn skin care and prenatal cleanliness	Prenatal/newborn	Applied topically, sometimes in combination with other plants
Action	<i>Back massage</i>	Massage to stimulate milk let-down	Postpartum	Non-pharmacological comfort care; stopped once milk begins to flow
Action	<i>Herbal bathing</i>	Bathing with leaf/bark decoction for	Postpartum	Used to support hygiene and bodily recovery

		restoration and comfort		
Action	<i>Pasosorang rub</i>	Postpartum body rub using leaves (<i>kulaju</i> , <i>tanging-tanging</i> , and soursop leaves)	Postpartum	Performed during bathing/body care to promote comfort and circulation
Speech act	<i>Baca-baca</i> (prayer)	Water-mediated ritual prayer used to calm and guide care	Labor / postpartum	Administered by drinking or sprinkling; a spoonful is used in specific cases of retained placenta
Device/props	<i>Holding rope/cloth/pole</i>	Simple support for sitting/squatting birthing positions	Labour	Used to brace the body; discontinued if fatigue or severe pain escalates
Symptoms/sensation	<i>Danger signs (heavy bleeding; prolonged/stalled labour; extreme weakness)</i>	Heavy bleeding, prolonged/stalled labour, or extreme weakness	Labour/Postpartum	Immediate referral trigger; suspend household measures.

Table 2 inventories representative entries in the maternal–neonatal ethnomedicine lexicon and organizes them by domain, materials (plant-based remedies), actions (household procedures), and speech acts (ritual language). Each entry is linked to its primary care aim, the phase of use (pregnancy, labor, postpartum, lactation, newborn), and locally stated notes that function as stop–go rules. Read together, the table shows how remedies and practices are embedded in culturally legible protocols that pace care and guard against overuse.

In the materials domain, *lambere susu* is a topical leaf applied to the breasts to encourage milk let-down in early postpartum; its use is typically limited to “2–3 days as comfortable,” which serves as a built-in stop rule once milk flow is established. *Kahu-kahu borong* is a mucilaginous drink prepared for stalled labor; it is shaken until slimy before ingestion and is used alongside prayer, with referral indicated if progress does not resume or danger signs appear. *Tahasa bassi* is a decoction for uterine cleansing after miscarriage or childbirth and may also be applied topically for boils; careful dosing and monitoring provide an interface with clinical safety. *Kaca-kaca/Ci’nung* supports prenatal cleanliness aims and newborn skin care and can be used alone or in combination with other plants, linking hygiene with comfort in the perinatal period.

In the actions domain, a back massage is used postpartum to stimulate milk let-down and is explicitly stopped once milk begins to flow; it is a non-pharmacological comfort measure that avoids indefinite application. Herbal bathing, typically a leaf/bark decoction, is framed as restorative hygiene during postpartum recovery. The *pasosorang rub*, using *kulaju* (banana leaf), *tanging-tanging*, and soursop leaves, forms part of bathing/body care to promote comfort and circulation.

The speech-act domain captures *baca-baca* (prayer) as a water-mediated performative used to calm the mother and authorize the next step in care. In specific circumstances, a spoonful or a sprinkle is administered for a retained placenta; if bleeding or retention persists, the practice signals escalation and legitimizes clinical referral. Overall, the table demonstrates that remedies, procedures, and prayers are not discrete elements but coordinated components of a social protocol that embeds safety guardrails and culturally acceptable thresholds for stopping, shifting, or escalating care.

The devices/props domain registers simple supports that scaffold preferred birthing positions. A holding rope/cloth/pole assists sitting or squatting and provides bracing during contractions; its use is discontinued when fatigue or severe pain escalates, thereby preventing strain and marking a shift to alternative measures or referral as indicated. Finally, the symptoms/sensations domain aggregates danger signs, such as heavy bleeding, prolonged or stalled labour, or extreme weakness, that operate as immediate referral triggers. These cues suspend household measures and transfer responsibility to clinical providers.

Together, the five domains demonstrate that remedies, procedures, ritual speech, bodily supports, and symptom cues are not discrete elements but coordinated components of an operational social protocol. The protocol embeds safety guardrails (bounded durations, dosing cautions, device discontinuation) and culturally acceptable thresholds for stopping, switching, or escalating care, aligning household practice with clinical pathways.

Data on Table 2 indicates that the maternal–neonatal lexicon functions less as a loose list of remedies than as a phase-structured protocol in which plant-based materials (decoctions, topicals) are routinely paired with household actions (massage, herbal bathing) and ritual speech that authorizes the next step. This pattern accords with comparative evidence on postpartum “confinement” systems across Asia, where recovery is choreographed through dietary, hygienic, and ritual routines with family-mediated oversight and explicit thresholds for resuming ordinary activities (Raven et al., 2007). Likewise, regional ethnobotanical studies document postpartum steam baths and cleansing with herbal decoctions as common repertoires in Mainland and Island Southeast Asia, aligning with our observation that substances and procedures are culturally legible pairs rather than stand-alone acts (de Boer & Lamxay, 2009).

Moreover, the entries embed safety guardrails, bounded durations, dosing cautions, and stop/go, notes that orient escalation to clinical referral when progress stalls or danger signs appear. This logic is consistent with the broader safety literature on herbal use in pregnancy and labour, which recommends caution given variable efficacy signals and documented adverse outcomes, and urges integration with biomedical referral pathways (Ahmed et al., 2018; Girmaw et al., 2023; Muñoz Balbontín et al., 2019). Recent reviews similarly highlight heterogeneous quality in evidence and the need for transparent documentation of

indications and limits, reinforcing the value of culturally grounded protocols that make decisions on when to stop, switch, or refer (Im et al., 2023a).

4.2 Speech acts as care instruments

Viewed through a performativity lens, *baca-baca* (prayer formulas) are materially bound to water and delivered by drinking or sprinkling. According to the *sanro pammanak* (38 years old), “during labour we give water that has been prayed over, after that, the baby is usually born more easily.” In addition, a husband (29 years old) said: “...when my wife is about to give birth, I start preparing and giving her water that has been prayed over to help ease the delivery.” In practice, water and *baca-baca* calm the mother, mark the transition to the next step, and provide a contingency protocol, for instance, a spoonful for a retained placenta. The utterance is not merely expressive; it carries illocutionary force that authorizes or withholds action (permission/prohibition/declaration) and sequences care from comfort measures toward escalation when needed.

Beyond comfort and reassurance, these speech acts function as micro-governance within the household. Permissions authorize specific procedures (massage, warming, herbal administration); prohibitions suspend or limit actions judged unsafe; and declarations formally close one phase of home care and open the next, including referral. Informants describe *baca-baca* water as a licensed step in the sequence: a community elder noted that, in specific contingencies, households administer a spoon of *baca-baca* water for a retained placenta; if bleeding or retention persists, this signals escalation and legitimizes referral. Prohibitions also set binding constraints on participation, who may act, where they may stand, and how they may assist. As one traditional birth attendant (40 years old) specifies: “..during labour, the traditional birth attendant stays beside the patient and must not stand in front of the vagina; when assisting the delivery, they are not permitted to look at the mother’s vagina.” Together, these rules pace home management, protect modesty and role boundaries, and delineate clear thresholds for transfer to clinical care.

Here, our findings sit alongside and extend prior work in Indonesia. Studies of healing in Bali show that ritual speech is constitutive of therapeutic action; its force depends on recognized formulas, authorized speakers, and appropriate settings, underscoring that utterances can organize care rather than merely describe it (Negeri et al., 2025). In Ammatoa households, we likewise find water-mediated prayers that license the next step in care and articulate thresholds for escalation; informants explicitly describe a sequence in which “Give the *baca-baca* water first; if it’s still severe/difficult, take her to the midwife,” indicating a culturally sanctioned bridge from home management to clinical referral. By contrast, ethnobotanical surveys of maternal care in other Indonesian settings (e.g., among the Serawai) primarily catalogue plant remedies and indications (Halhaji & Suryadarma, 2022), with less attention to the performative organization of actions and decisions, highlighting our study’s added value in linking lexicon to speech-act governance. Finally, the public-health literature in Indonesia tends to center on clinical standards and formal partnerships between health workers and traditional healers; our results complement this line by detailing how permissions, prohibitions, and declarations within the household pace attempts, set stop-go rules, and legitimate referral when danger signs persist.

4.3 Sequencing and escalation thresholds.

Care typically begins with comfort-oriented measures in the home, such as a back massage that is discontinued once milk begins to flow, herbal bathing, and a brief *passosorang* rub, administered in a warm, private setting where mothers commonly adopt sitting or squatting positions and may steady themselves with a simple holding device (rope, cloth sling, or pole). According to a housewife (34 years old), “I had postpartum herbal bathing for perineal healing, one day only”. Another postpartum mother (28 years old) noted that “for milk flow, *sanro pammanak* will bathe and briefly massage the back, but stop once milk flows”. Within this rhythm, *sanro pammanak* accompany the process in ritual-and-comfort roles: short prayers and succinct permission/prohibition formulas pace what is done next and, equally, signal when an action should cease because it is no longer appropriate. These household sequences reflect a practical division of labor in which *sanro pammanak* regulate space and reassurance, while clinical acts are reserved for midwives once escalation is warranted.

Escalation is triggered by locally recognized danger signs such as heavy bleeding, prolonged or stalled labor, or marked maternal weakness, and by contingencies such as a retained placenta that do not resolve after initial measures. In these contingencies, water bound by *baca-baca* operates as a licensed step (“a spoonful for the placenta”); if bleeding or retention persists, a declarative utterance “closes” home care and legitimizes referral, at which point midwives assume responsibility for clinical procedures and formal reporting. At the same time, the *sanro pammanak* continues to support comfort and communication. As a traditional birth attendant (40 years old) put it, “If it becomes very difficult, we give water ‘*air baca-baca*’ first; if it remains heavy, we take her to the midwife.”

These patterned sequences, comfort measures paced by ritual speech with explicit stop/go thresholds and timely referral, converge with wider evidence on Indonesian healing speech and maternal ethnomedicine. Work on ritual language in Bali, for instance, shows that prayer formulas are not merely expressive but also enact authority and organize action (Manoj Jinadasa, 2016; Sumaryana Putra et al., 2025), a performative logic consistent with *baca-baca* as a licensing device in this study.

Ethnobotanical work on maternal care consistently shows plant-based preparations used alongside routine household procedures and staged decision-making; in our setting, for example, families deploy local herbs as first-line comfort care before referral when symptoms persist. This pattern coexists with women’s preference for upright (sitting/squatting) postures in late labour. Current evidence supports this preference: a meta-analysis found that upright, free, semi-recumbent, and lateral positions are the most effective for shortening the second stage of labour, strengthening the case for enabling maternal choice of position. In addition, a recent systematic review reported that upright positions are associated with better perineal outcomes and neonatal well-being (Liu et al., 2025), further reinforcing the local rationale for preserving maternal autonomy over position. Finally, the family’s active role, including husbands who prepare prayer water, mirrors broader findings on male support in pregnancy and structured partnerships between traditional attendants and formal services, with cultural-safety approaches emphasizing respectful handover at escalation.

However, these household remedies are vernacular and non-standardized. Thus, their quantities, concentrations, and preparation conditions can vary across cases. Importantly, several systematic reviews classify a non-trivial share of commonly used herbs in pregnancy as contraindicated or “use with caution”, underscoring potential interactions and adverse effects when combined with prescribed medicines (Baier et al., 2022; Im et al., 2023b; Kennedy et al., 2016). In addition, prayed-over water (*baca-baca*) is not necessarily sterile; broader perinatal infection-control guidance and the water-birth safety literature flag risks of neonatal infection when water handling is suboptimal, which strengthens the case for strict hygiene and clean-water practices around the mother–newborn dyad (Gupta & Froeb, 2020). Prolonged repetition of home measures may also delay timely referral, which runs counter to evidence-based intrapartum care models emphasizing avoidance of unnecessary or harmful practices and prompt escalation when danger signs persist (Oladapo et al., 2018). Accordingly, in this study’s model, all home steps are explicitly time-bounded, tied to observable danger signs, and subordinate to midwife-led escalation; this account is descriptive of practice rather than a claim of clinical efficacy.

4.4 Linking lexicon

To foreground how lexicon operates as social protocol, Table 3 maps representative items to care aims, typical speech co-text, and stop/go triggers.

Table 3. Semantic mapping from lexicon to performative functions

Lexicon item	Care aim (semantic)	Typical speech co-text	Stop/Go trigger
<i>Lambere susu</i> (topical)	Lactation support/recovery	Permission formula to begin rubbing; reassurance	STOP when milk flows (let-down achieved)
<i>Kahu-kahu borong</i> (oral, mucilage)	Facilitate progress in stalled labor	Prayer over water; directive to drink	GO TO REFERRAL if no progress/danger signs persist
<i>Baca-baca</i> water (spoonful/sprinkle)	Calm and authorize the next step; retained placenta contingency	Declarative/permission formula by <i>sanro pammanak</i>	ESCALATE if bleeding/retention continues
<i>Passosorang rub</i> (postpartum)	Comfort, hygiene, circulation	Domestic rules on timing/space	STOP when soreness is relieved; shift to routine care

Table 3 formalizes how specific items in the ethnomedicinal lexicon are coupled with their intended care aims, the speech co-text that authorizes or withholds action, and locally recognized “stop/go” triggers. Read horizontally, each row shows how a material or practice is embedded in a performative script, prayers, permissions, or declarations, that sequences care and defines when to continue, stop, or escalate.

For lactation and postpartum recovery, *lambere susu* is applied topically with an explicit permission formula that legitimizes the start of rubbing and reassures the mother. Its built-in stop rule, discontinue when milk let-down is achieved, prevents overserving and signals a shift to routine care. Likewise, the postpartum *pasosorang rub* targets comfort, hygiene, and circulation. Domestic rules about timing and space govern its use, and the practice is

stopped once soreness subsides, again marking a transition to ordinary care rather than indefinite treatment.

For labor progression, *kahu-kahu borong* (an oral mucilage) is prepared with a prayer over water, followed by a directive to drink it. Its “go to referral” trigger is activated when progress stalls or danger signs persist, translating local assessment into a clear escalation pathway. *baca-baca* water, which has been administered as a spoonful or a sprinkle, serves to calm and to confer permission for the next step, including a contingency for a retained placenta. If bleeding or retention continues, a declarative speech act signals escalation beyond home management.

Table 3 can be read as a governance script in which remedies are inseparable from the utterances that license, limit, and escalate their use. Husband and wife explicitly describe “one spoonful of *baca-baca* water” for a retained placenta as a contingent step, administered with a prayer and then discontinued or escalated if danger signs persist, “administer prayed-over water first; if the difficulty persists, refer to the midwife,” as one informant summarized the stop/go rule that bridges home care to formal services.

This sequencing also structures a pragmatic division of labor: “childbirth is handled 100% by the midwife; sanro pammanak is asked to recite the prayer (*baca-baca*), a formulation that reserves ritual-comfort functions to the traditional birth attendant while transferring clinical accountability to midwives once referral is triggered. The mechanism by which these speech acts work is performative, not merely expressive: formulaic prayers spoken by an authorized person, over a proper medium (water), in the right setting, carry illocutionary force that “does things”, granting permission to begin rubbing (*lambere susu*), declaring when to stop (after milk let-down), or authorizing escalation. This aligns with broader Indonesian evidence that ritual speech is a consequential act that organizes and advances healing, rather than a symbolic add-on (Panuntun et al., 2019). Taken together, the Ammatoa data show how materials and practices are embedded in performative protocols that pace interventions, embed safety guardrails (clear “stop” and “refer” thresholds), and maintain cultural legitimacy while enabling timely transfer to biomedical care.

5. Conclusions

This study demonstrates that the Ammatoa maternal ethnomedicine operates as an organized social protocol rather than a mere list of remedies. By inventorying the lexicon and modeling its semantic categories (materials, actions, devices, symptoms), then linking them to performative speech practices (prayer, permission, prohibition), we demonstrate how language sequences care from comfort measures to escalation and referral. Water-anchored prayers (*baca-baca*), domestic rules, and customary sanctions give deontic force to utterances, while the sanro–midwife coexistence translates this force into a workable division of labor. Conceptually, the contribution is a formal linkage of lexicon → semantics → performativity that clarifies decision thresholds and offers a culturally attuned bridge to clinical safety.

To translate these findings into action, we recommend developing a bilingual Konjo–Indonesian glossary with usage notes (phase, preparation, do/don’t speech cues) and a concise “Stop–Go–Refer” pathway card for households and Posyandu, aligned with

recognized danger signs; conducting joint sanro pammanak–midwife role-play sessions that rehearse permission/prohibition lines to standardize hand-offs; instituting a respectful protocol for handling ritual content (paraphrase options, consent procedures, water-hygiene guidance) for community dissemination; and introducing simple household/posyandu logbooks to record steps taken and referral triggers. For further inquiry and refinement, we suggest quantifying lexical consensus via free-listing and pile-sorting (with term–frame analysis or MDS), pursuing pharmacogenetic follow-up on high-use plants (voucher specimens, species identification, indicative safety windows), co-designing and evaluating culturally attuned communication materials (pre/post comprehension and referral uptake), building an audio corpus of non-esoteric prayer formulas (with consent) to support preservation and training, and extending comparative studies across South Sulawesi groups to test the portability and limits of the proposed lexicon–performativity model.

6. References

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