

## The Language of Sensation from the Womb: Fetal–Maternal Communication from an Indonesian Cultural Perspective

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### ABSTRACT

Prenatal communication is commonly understood as a one-way process from mother to fetus. However, within the Indonesian cultural context, the fetus is perceived as an active subject capable of transmitting signals of sensation, emotion, and preference to the mother long before birth. This study aims to explore and interpret forms of fetal–maternal communication through the language of sensation, a pre-verbal mechanism that integrates bodily sensations, intuition, emotions, and spiritual influences. The research was conducted from October 2024 to June 2025 using a qualitative phenomenological approach and involved 30 pregnant women representing the cultural diversity of Indonesia. Data were collected through in-depth interviews, daily reflective journals, observation of maternal physical responses, and group discussions. Analysis was carried out using Colaizzi’s method to identify the essence of the lived experiences of communication described by the participants. The findings indicate that the fetus transmits signals through four primary pathways: (1) bodily sensations, manifested in changes in fetal movement rhythms, abdominal warmth, spontaneous tension, and responses to environmental stimuli; (2) food preferences, expressed as fetal “desires” or “rejections” of specific foods, particularly contrasting traditional and modern foods; (3) emotional influences, including sudden urges for self-soothing, feelings of safety, restlessness, or emergent spiritual needs; and (4) spiritual resonance, evidenced by rapid fetal responses to prayer, gentle music, or religious rituals. These findings affirm that the fetus is not merely a passive recipient but an active communicator who conveys messages through the mother’s body and generates an intersubjective relationship between two souls within a single body. This study extends the understanding of prenatal communication from an Indonesian cultural perspective, positioning *rasa* (sensation/feeling) as the first language employed by the fetus. The findings open avenues for the development of culturally grounded theories of fetal–maternal communication in Indonesia and support the integration of holistic approaches in midwifery practice and prenatal counseling.

**Keywords:** Prenatal Communication; Mother–Fetus Relationship; Language Of Sensation; Prenatal Intersubjectivity; Bodily Sensations; Pregnancy Intuition; Emotional Resonance; Spiritual Resonance; Indonesian Culture; Phenomenology

## INTRODUCTION

Understanding of prenatal communication continues to develop across the fields of neuropsychology, maternal and child health, and communication studies. A number of studies have shown that fetuses begin to respond to sound, light, touch, and changes in maternal hormones from mid-gestation, indicating the presence of active responsive capacities prior to birth (Hepper, 1996; Piontelli, 2010). In addition, maternal emotional states and health conditions during pregnancy are known to influence fetal development through specific biological and neurophysiological mechanisms (Capra et al., 2013). However, the majority of international research still conceptualizes prenatal communication as a top-down process, namely a one-way flow of communication from mother to fetus. Within this framework, the mother is positioned as the primary sender of messages through emotions, nutrition, behavior, and environmental stimuli, while the fetus is viewed as a passive recipient that responds primarily at a physiological level (Condon & Corkindale, 1998).

This scientific narrative differs markedly from long-standing Indonesian cultural understandings, which view the fetus as an emotionally and spiritually active being even before birth. In Sundanese culture, for example, the concept of *tandana orok* refers to subtle signs believed to be fetal messages conveyed through changes in sensation or movement in the womb. Javanese communities recognize the notion of *pitutur saka njero*, understood as advice or signals originating from within the womb. Across many other communities in the Indonesian archipelago, cravings for or aversions to particular foods are often directly attributed to the “will of the baby,” rather than being interpreted solely as maternal preferences. These perspectives reflect a cultural framework that positions the fetus as an active communicative subject from the earliest stages of life (Koentjaraningrat, 2009).

Despite the richness and deep roots of these cultural understandings in everyday practice, scientific research on fetal-maternal communication from an Indonesian cultural perspective remains very limited. To date, few studies have systematically positioned the fetus as a subject of communication or explored maternal experiences of perceiving fetal messages through the body, intuition, and emotion. Yet, research in medical anthropology has demonstrated that culture strongly shapes how individuals interpret bodily sensations and make health-related decisions (Kleinman, 1980). Neglecting cultural perspectives therefore risks reducing maternal experiences to purely biological responses, without considering the social and symbolic meanings that accompany them.

Moreover, most studies of prenatal communication continue to emphasize biological pathways, such as fetal responses to external sounds, changes in maternal heart rate, or exposure to stress hormones. Such approaches tend to marginalize the phenomenological dimensions of pregnancy, even though pregnant women frequently report subtle experiences such as feeling that “the baby is communicating,” “the baby dislikes certain foods,” or “the baby needs a calm atmosphere.” Experiences of this kind are difficult to fully explain within a strictly biomedical framework but can be more adequately understood through models of pre-verbal and affective communication (Stern, 1985; Trevarthen, 2012).

The concept of *rasa* in the cultures of the Indonesian archipelago carries a multidimensional meaning that encompasses bodily sensations, emotions, intuition, inner resonance, and spirituality. *Rasa* is not understood merely as a physical feeling, but as a medium for comprehending intersubjective relationships, including the relationship between mother and fetus. This perspective resonates with phenomenological approaches that locate the body as the primary locus of meaning-making prior to the emergence of verbal language (Merleau-Ponty, 1962). Furthermore, phenomenological anthropology emphasizes that bodily experience is always culturally framed and shaped by collective memory, such that biological sensations are never neutral in meaning (Csordas, 1990).

By creating space for the fetal voice as a subject of communication, this study not only enriches the academic literature on prenatal communication but also broadens the understanding of pregnancy as an intersubjective relationship between two souls within a single body. This approach has important implications for maternal and child health, midwifery practice, pregnancy support, and the development of communication theories grounded in the cultures of the Indonesian archipelago and in the lived experiences of pregnant women.

## LITERATURE REVIEW

### 1. Nonverbal and Pre-Verbal Communication in Early Life Relationships

In communication studies, nonverbal communication is understood as the process of conveying meaning without the use of verbal language, encompassing bodily cues, touch, rhythm, affective expressions, and meaningful physiological changes (Burgoon, Guerrero, & Floyd, 2016; Mahmood, 2021). In the early stages of human life, communication occurs primarily in pre-verbal forms, namely exchanges of meaning that take place before individuals acquire symbolic language abilities (Stern, 1985; Fogel, 1993). Research in developmental psychology and interpersonal communication demonstrates that early relationships are constructed through

patterns of reciprocal responsiveness, rhythmic synchronization, and affect regulation, rather than through structured linguistic message exchange (Fogel, 1993).

In the context of pregnancy, the framework of pre-verbal communication is particularly relevant because the maternal–fetal relationship is not mediated by language, but by bodily responses and affective experiences repeatedly perceived by the mother. These responses—such as changes in bodily sensations, movement rhythms, and emotional states—can be understood as forms of nonverbal communication that shape interactional patterns. Accordingly, prenatal communication can be analyzed academically as part of nonverbal communication in early life relationships, rather than being viewed solely as a biological process (D’Andrade, 2012).

Affective communication refers to processes through which emotions and psychological states are exchanged and influence individual behavior, perception, and decision-making (Street, Makoul, Arora, & Epstein, 2009). In studies of interpersonal and health communication, emotions are understood not only as internal states but also as messages that can be transmitted and responded to within relationships. During pregnancy, maternal affective dynamics undergo significant changes and often emerge without clearly identifiable external stimuli (Fogel, 1993). Developmental psychology and maternal health research generally position maternal emotions as factors influencing fetal conditions; however, conceptually, affective communication allows for more complex relational processes. Emotional changes experienced by the mother—such as feelings of calmness, restlessness, or a need for tranquility—may be interpreted as part of ongoing nonverbal communication within the prenatal relationship. Thus, the maternal–fetal relationship can be analyzed as an affective communication system involving co-regulation of emotions, rather than merely as the mother’s individual psychological reactions to pregnancy.

In communication scholarship, culture is understood as a system of shared values, symbols, and knowledge that shapes how individuals interpret messages and experiences (D’Andrade, 2012). Within the context of health communication, culture plays a critical role in mediating the interpretation of bodily sensations, emotions, and medical experiences. During pregnancy, mothers do not respond solely to biological changes; they also interpret these experiences through their cultural frameworks. Cultural values, family beliefs, and social practices influence how mothers understand bodily signals and emotional changes. In Indonesian society, intuition and *rasa* are often used as legitimate bases for interpreting pregnancy experiences, such that prenatal communication cannot be separated from its social and cultural context. This cultural framework functions as an interpretive system that assigns meaning to nonverbal and affective responses during pregnancy. Therefore, studies of prenatal communication need to consider culture as a key variable shaping meaning-making processes, rather than treating it merely as a social background.

## 2. Affective Communication and Emotional Regulation during Pregnancy

Affective communication refers to the process through which emotions, psychological atmospheres, and affective states are exchanged and influence individual behavior, perception, and decision-making within a relationship. In health communication and maternal and child health psychology, emotional regulation during pregnancy is understood as a critical factor contributing to maternal well-being and fetal development (Street, Makoul, Arora, & Epstein, 2009; Feldman, 2015). Most studies position maternal emotions as independent variables that affect fetal conditions through biological mechanisms such as stress hormones and the autonomic nervous system. However, from a communication perspective, emotions are not viewed solely as internal states but also as messages circulating within a relational system (Tronick, 2007; Tronick & Beeghly, 2011). Affective communication allows emotions to function as a medium of interaction that shapes relationships, influences responses, and generates patterns of connectedness. Therefore, the maternal–fetal relationship during pregnancy can be understood as a dynamic context of affective communication, rather than merely as a one-way biological cause–effect relationship (Leerkes, Parade, & Gudmundson, 2011).

During pregnancy, changes in maternal emotions often emerge rapidly and are not always directly linked to clearly identifiable external stimuli. In interpersonal communication studies, this phenomenon can be understood as part of nonverbal affective communication, in which emotional changes function as relational signals arising within contexts of intense closeness (Tronick, 2007; Tronick & Beeghly, 2011). Emotions such as calmness, restlessness, or urges to seek tranquility may directly influence maternal behavior, including activity patterns, social interactions, and everyday decision-making. Within the context of health communication, these affective changes cannot be reduced to individual psychological reactions alone, as they occur within a highly intimate and continuous relationship (Street et al., 2009). Accordingly, maternal emotional experiences during pregnancy can be analyzed as part of communication dynamics involving affective exchange, co-regulation, and nonverbal behavioral adjustment (Feldman, 2015).

An affective communication approach enables a more comprehensive understanding of emotional regulation during pregnancy by positioning it as a relational process rather than merely an intrapersonal mechanism (Leerkes et al., 2011). Within this framework, emotions are viewed as components of a communication system that shapes interaction patterns, risk perception, and maternal coping strategies during pregnancy (Tronick, 2007). Health

communication research demonstrates that the ways individuals interpret and manage emotions are strongly influenced by relational contexts and the meanings attributed to these experiences (Feldman, 2015). Consequently, emotional dynamics during pregnancy can be understood as ongoing communication processes that continuously shape the maternal–fetal relationship (Tronick & Beeghly, 2011). This perspective extends analyses of prenatal communication by emphasizing the role of emotion as an academically relevant medium of nonverbal communication (Street et al., 2009). Thus, affective communication provides a theoretical foundation for examining maternal emotional experiences as integral components of communication processes, rather than as isolated individual psychological responses.

### 3. Culture, Intuition, and the Interpretation of Messages in Health Communication

In health communication studies, culture is understood as a system of values, norms, and symbols that shapes how individuals make sense of health information, bodily sensations, and medical experiences (Airhihenbuwa, 1995; Helman, 2007). Culture functions as an interpretive framework that influences how health messages are received, understood, and responded to. Not all health-related experiences can be directly explained through medical parameters; therefore, individuals often rely on cultural references to assign meaning to such experiences. In the context of Indonesian society, pregnancy is understood not only as a biological event but also as a social and cultural experience (Hinton & Lewis-Fernández, 2011). Cultural values shape how mothers interpret bodily changes, emotional states, and the responses they experience during pregnancy. Consequently, health communication does not occur in a neutral space but is always embedded in cultural contexts that influence message interpretation and health-related decision-making processes (Mishler, 1984).

Intuition in the context of health communication is not understood as a form of irrationality, but rather as knowledge grounded in experience, social learning, and the internalization of cultural values (Polkinghorne, 1988). Communication research shows that individuals frequently rely on intuition as a cognitive strategy when facing complex or ambiguous situations, including those related to health. During pregnancy, mothers encounter various bodily sensations and emotional changes that are not always accompanied by clear medical explanations. In such situations, intuition functions as an initial interpretive mechanism that helps mothers assess their condition and determine what responses are considered appropriate. This intuition is shaped and reinforced by personal experience, family narratives, and culturally transmitted knowledge. Therefore, intuition can be understood as a legitimate component of internal communication processes from an academic perspective, particularly within health communication contexts that involve subjective experiences.

The ways in which mothers interpret bodily signals during pregnancy are strongly influenced by cultural values, family beliefs, and social practices within their surrounding environments (Airhihenbuwa, 1995; Helman, 2007). In health communication, these interpretive processes determine how individuals respond to health messages, choose courses of action, and manage perceived risks. If maternal experiences are viewed solely as biological symptoms, the social and cultural dimensions of prenatal communication risk being overlooked. A culturally grounded approach allows maternal experiences to be understood as part of a broader system of meaning in which bodily sensations, emotions, and intuition are interrelated (Polkinghorne, 1988). Accordingly, interpretations of prenatal communication need to be situated within cultural frameworks in order to avoid reducing maternal experiences to purely physiological responses. This approach enriches health communication scholarship by emphasizing that culture is a key variable in the interpretation of health messages, particularly in the context of pregnancy (Mishler, 1984).

## RESEARCH METHODS

This study employed a qualitative phenomenological approach rooted in the philosophical thought of Edmund Husserl and further developed through Colaizzi's method of analysis. The phenomenological approach was selected because the primary aim of the study was to understand the subjective experiences of pregnant women in perceiving communication from the fetus as directly lived and meaningfully interpreted by the participants themselves. Phenomenology enables the exploration of pregnancy not merely as an objective event, but as a reality that is experienced, felt, and interpreted by mothers within the context of their everyday lives. This approach is particularly appropriate for examining subtle, complex, and multidimensional experiences, especially forms of prenatal communication that cannot always be adequately explained through conventional biomedical indicators.

The focus of the study was not on measuring the frequency or intensity of specific symptoms, but rather on the meanings mothers attribute to signals perceived as originating from the fetus. Accordingly, maternal experience was treated as a legitimate and primary source of scientific data. The phenomenological approach allows researchers to identify shared patterns of meaning underlying diverse individual experiences. Within the Indonesian cultural context, these meanings are inseparable from the values, beliefs, and social practices that shape how

mothers understand their relationships with their fetuses. Therefore, the research design was oriented toward capturing the essence of fetal–maternal communication as a relational phenomenon occurring within specific social and cultural contexts.

The study was conducted between October 2024 and June 2025. During this period, data collection and analysis were carried out in a phased and iterative manner. The research process involved in-depth interviews, observation, participant accompaniment, and reflective analysis of the collected data. Although most research interactions took place in urban clinical settings, the characteristics of the participants reflected the cultural diversity of Indonesia. This allowed the study to capture variations in prenatal communication experiences across a broad cultural spectrum while maintaining relative consistency in health care contexts.

The participants consisted of 30 pregnant women recruited using purposive sampling. This technique was chosen to ensure that participants had experiences relevant to the focus of the study. Inclusion criteria included women in their first to third trimesters of pregnancy, pregnancies that were healthy and developing normally, and participants' willingness to share their personal experiences in depth. In addition, participants were drawn from diverse Indonesian cultural backgrounds, including Sundanese, Javanese, Batak, Minangkabau, Flores, Balinese, and Chinese Indonesian communities, in order to enrich understanding of variations in the meanings attributed to fetal–maternal communication.

Participants ranged in age from 22 to 40 years and represented diverse socioeconomic backgrounds. This diversity was intentionally considered to avoid homogeneity of experience and to enable exploration of prenatal communication dynamics across different life contexts. In phenomenological research, sample size is not determined by principles of statistical representation, but by data depth and the achievement of meaning saturation. A total of 30 participants was deemed sufficient to capture consistent experiential patterns as well as meaningful individual variations in fetal–maternal communication.

Data were collected using four primary techniques: in-depth interviews, maternal daily journals, non-participant observation, and focus group discussions (FGDs). In-depth interviews were conducted face-to-face for 60–90 minutes in private and supportive settings, using open-ended interview guides. Daily journals were used to document participants' reflective experiences over a 14-day period, including dietary intake, mood changes, intuitive impressions, and spiritual experiences. Non-participant observation focused on verbal and nonverbal expressions, while FGDs aimed to identify shared themes and to validate experiences across participants.

The primary research instrument was the researcher as a living instrument, supported by interview guides, participant journals, observation sheets, and audio recording devices with participants' consent. To maintain interpretive rigor, the researcher employed bracketing techniques through systematic reflective journaling. Bracketing was used to acknowledge and suspend the researcher's assumptions, personal experiences, and cultural beliefs so as not to dominate participants' narratives. Research procedures included participant recruitment, informed consent, staged interviews, observation, FGDs, and validation of findings through member checking.

Data analysis followed the seven steps of Colaizzi's method, including comprehensive reading of transcripts, identification of significant statements, coding of meaning units, thematic clustering, development of exhaustive descriptions, identification of the essence of the phenomenon, and validation of findings with participants. This process ensured methodological rigor, analytical depth, and the trustworthiness of the findings. The study also adhered to ethical standards for health research, including written consent, anonymity, data confidentiality, and participants' right to withdraw at any time. All data were securely stored and used exclusively for academic purposes.

This study received ethical approval from the Ethics and Legal Committee, Subcommittee for Health Research Ethics, Santo Borromeus Hospital, as documented in the Ethical Clearance Certificate No. 026/KEPK/IX/2024. This ethical approval ensures that all research procedures complied with the principles of health research ethics, including respect for participant autonomy, beneficence and non-maleficence, justice, and the protection of participants' dignity and well-being. All participants were provided with adequate information regarding the study's objectives, procedures, potential risks, and benefits prior to signing informed consent. Participant identities were protected through the use of codes and data anonymization, and all information obtained was used responsibly and solely for academic and scientific development purposes.

## Research

Phenomenological analysis using Colaizzi's method yielded five overarching themes that describe forms of fetal–maternal communication through the *language of sensation*. These themes demonstrate that the fetus is not passive, but actively transmits signals of comfort, needs, and preferences to the mother through bodily sensations, emotions, and intuition.

### ***Theme 1. Fetal Sensory Signals through the Maternal Body***

The most dominant theme emerging from the data analysis was fetal sensory signaling through the maternal body, experienced by participants as specific physical changes and bodily sensations during pregnancy. These sensations were not perceived as medical complaints or pathological symptoms, but rather as signs imbued with communicative meaning. Mothers interpreted these sensations as messages sent by the fetus to convey states of comfort, discomfort, or responses to the mother's emotional condition and surrounding environment. The reported sensory patterns were recurrent and consistent, gradually forming a system of cues that mothers learned to recognize over time. These sensations included sudden warmth in the abdomen, changes in the rhythm of fetal movement, abdominal tightening under certain conditions, and rapid jolting movements interpreted as expressions of rejection. The consistency of these experiences prompted the researcher to develop an initial mapping of fetal sensory signals as perceived by mothers.

To clarify both variation and convergence of experiences across participants, the findings related to Theme 1 are summarized in a table presenting eight pregnant women as cross-cultural and gestational-stage representations. Table 1 illustrates the relationship between the types of bodily sensations experienced by mothers, the contexts in which they emerged, and the meanings interpreted as messages from the fetus. The selection of these eight participants was based on narrative richness, experiential consistency, and the clarity of reported sensory patterns. Through this table, readers can observe that fetal sensory signals did not emerge randomly, but were correlated with maternal emotional states, specific activities, or environmental conditions. The table serves as a bridge between individual experiential narratives and collective thematic patterns, thereby strengthening the transparency and traceability of the qualitative analysis.

**Table 1.** Fetal Sensory Signals through the Maternal Body

<b>Participant Code</b>	<b>Cultural Background</b>	<b>Gestational Age</b>	<b>Maternal Bodily Sensation</b>	<b>Context of Occurrence</b>	<b>Meaning Interpreted by the Mother</b>
P1	Sunda	24 weeks	Sudden abdominal warmth	Mother in a calm state	The fetus feels comfortable and safe
P2	Java	32 weeks	Slower, rhythmic fetal movements	After consuming certain foods	The fetus likes the food
P3	Batak	26 weeks	Gentle movements when the abdomen is touched	During prayer	The fetus responds and "joins in prayer"
P4	Minangkabau	14 weeks	Sudden abdominal tightening	Mother feels anxious or fatigued	The fetus is uncomfortable
P5	Flores	34 weeks	Repeated rapid jolts	Noisy environment	The fetus rejects the noisy situation
P6	Bali	28 weeks	Abdomen feels light and warm	Listening to gentle music	The fetus feels relaxed
P7	Java	16 weeks	Fetal movement pauses briefly	Mother sits quietly and focuses	The fetus is "listening"
P8	Chinese Indonesian	36 weeks	Strong movements after strenuous activity	Mother is exhausted	The fetus signals the mother to stop

Analysis of Table 1 indicates that fetal sensory signals manifested as relatively consistent patterns of bodily sensations across gestational ages and maternal cultural backgrounds. Abdominal warmth, slower or rhythmic fetal movements, and sensations of lightness were generally interpreted by mothers as indicators of comfort and positive affective states. These sensations most commonly appeared when mothers were calm, engaged in soothing activities, or involved in spiritual practices such as prayer or listening to gentle music. The consistency in maternal

interpretations suggests that these sensory experiences were not perceived as random occurrences, but rather as directed responses from the fetus to the mother's internal condition.

Conversely, Table 1 also shows that sensations such as sudden abdominal tightening and rapid jolting movements were more frequently associated with discomfort. These sensations tended to emerge when mothers experienced fatigue, anxiety, or were exposed to noisy and overstimulating environments. Mothers interpreted these responses as signals of rejection or warning from the fetus, prompting behavioral adjustments such as resting, avoiding certain situations, or actively calming themselves. This pattern indicates a process of co-regulation, whereby mothers adjust their actions based on perceived sensory responses, thereby forming a reciprocal, nonverbal interaction between mother and fetus.

Overall, Table 1 reinforces the finding that the maternal body functions as a medium of sensory communication through which the fetus conveys its condition and needs. Although these experiences are mediated by mothers' subjective interpretations, the uniformity of sensory patterns and attributed meanings across participants suggests the presence of a relatively stable communicative structure. Accordingly, fetal sensory signals can be understood as a form of pre-verbal, nonverbal communication that contributes to the formation of intersubjective relationships beginning in pregnancy. These findings provide empirical grounding for understanding prenatal communication as a relational process, rather than merely as a one-way biological reaction.

### ***Theme 2. Fetal Food Preferences as a Language of Communication***

The second theme that emerged strongly in participants' experiences was fetal food preferences, which were interpreted as a form of nonverbal communication. Most pregnant women reported that urges to consume or avoid particular foods were not experienced as personal cravings, but rather as responses that were perceived to "originate from the fetus." These urges often appeared suddenly, were highly specific, and were accompanied by changes in bodily sensations or fetal movement. Mothers then interpreted these responses as messages indicating fetal comfort or discomfort. Traditional foods with mild flavors and culturally familiar characteristics were more frequently associated with calming fetal responses, whereas modern foods with strong aromas tended to be rejected. To clarify these patterns, the findings are summarized in Table 2.

**Table 2.** Fetal Food Preferences as a Language of Communication

Participant Code	Cultural Background	Gestational Age	Type of Food	Fetal Response	Meaning Interpreted by the Mother
N1	Java	22 weeks	<i>Sayur asem</i> (sour vegetable soup)	Calm movements	The fetus feels safe
N2	Sunda	30 weeks	Prenatal milk	Restless movements	The fetus rejects it
N3	Batak	26 weeks	Steamed fish	Slower movements	The fetus likes it
N4	Minangkabau	18 weeks	Spicy food	Abdominal tightening	The fetus is uncomfortable
N5	Flores	34 weeks	Clear soup	Prolonged stillness	The fetus is calm

Analysis of Table 2 indicates that fetal food preferences formed relatively consistent patterns across participants. Traditional foods characterized by mild flavors and gentle aromas were more often associated with calming fetal responses, such as slowed movements or brief stillness. Mothers interpreted these responses as signs of comfort and acceptance. In contrast, strongly scented or modern foods frequently elicited responses perceived as discomfort, either through maternal nausea or abrupt fetal movements. This pattern suggests that food functions as a communicative medium mediating interaction between mother and fetus.

Furthermore, the table demonstrates a direct correlation between the consumption of specific foods and subsequent changes in fetal behavior. The immediacy of these responses reinforced mothers' beliefs that the preferences originated from the fetus. Mothers then adjusted their dietary choices as a form of response to these perceived messages. This process reflects a reciprocal communication mechanism, in which the fetus is perceived as the signal sender and the mother as both interpreter and decision-maker. In this way, food preferences become part of relational regulation during pregnancy.

Overall, the findings related to Theme 2 affirm that fetal food preferences can be understood as a structured form of pre-verbal, nonverbal communication. The tendency of fetuses to "accept" traditional foods suggests a connection between the mother's embodied cultural memory and a sense of safety during pregnancy. Maternal

interpretations of fetal responses are shaped by cultural experience and inherited social practices. Thus, food serves not only a nutritional function but also operates as a communicative language linking biological, emotional, and cultural dimensions within the maternal–fetal relationship.

### ***Theme 3. Emotional Communication from the Fetus to the Mother***

The third theme indicates that prenatal communication occurs not only through bodily sensations or food preferences, but also through emotional influences experienced by the mother. Many participants described sudden changes in mood that did not always correspond to clear external stimuli. Feelings of peace, restlessness, urges to withdraw from crowded environments, and specific spiritual needs were often experienced as emotions that were perceived to “come from the fetus.” Mothers interpreted these emotions not as their own psychological states, but as emotional messages conveyed by the fetus to guide behaviors and situations toward greater comfort. Within the Indonesian cultural context, these experiences are understood as a natural form of inner communication and are often referred to as “*rasa yang turun dari bayi*” (a feeling that comes from the baby). To clarify these experiential patterns, the findings are summarized in Table 3 below.

**Table 3. Emotional Communication from the Fetus to the Mother**

Participant Code	Cultural Background	Gestational Age	Emotion Experienced by the Mother	Context of Emergence	Meaning Interpreted by the Mother
M1	Batak	24 weeks	Strong urge to pray	No external trigger	The fetus needs spiritual calm
M2	Minangkabau	18 weeks	Sudden restlessness	Crowded environment	The fetus is uncomfortable
M3	Javanese	32 weeks	Desire to withdraw	Meeting many people	The fetus is requesting a calm atmosphere
M4	Sunda	28 weeks	Sudden sense of peace	While resting	The fetus feels safe
M5	Flores	34 weeks	Heightened emotional sensitivity	Intense daily activities	The fetus is fatigued

Analysis of Table 3 shows that emotions experienced by mothers during pregnancy do not always align with environmental conditions or external events. Feelings of peace, restlessness, or spiritual urges often emerge suddenly and recur in particular situations. Mothers interpreted the emergence of these emotions as emotional signals from the fetus, especially when the emotions prompted behavioral changes such as seeking calmness or avoiding crowded settings. This pattern appeared across diverse cultural backgrounds and gestational ages, suggesting that fetal emotional communication is perceived as a cross-contextual experience, although the terminology and interpretations are shaped by each mother’s cultural framework.

Furthermore, the table illustrates that emotions interpreted as fetal communication function as a mechanism of relational regulation. Urges to pray, withdraw, or rest become maternal responses to perceived emotional signals. Mothers did not interpret these emotions as psychological disturbances, but rather as messages requiring active response. This process reflects a reciprocal interaction in which the fetus is perceived to influence the mother’s emotional state, and the mother adjusts her behavior to maintain relational comfort. In this way, emotion becomes a nonverbal communicative medium that regulates the dynamics of pregnancy.

Overall, Table 3 reinforces the finding that prenatal communication encompasses a significant emotional dimension. The emotions experienced by mothers are not viewed merely as reflections of internal psychological states, but also as relationally meaningful messages. Within the Indonesian cultural framework, these experiences are understood as “*rasa yang turun dari bayi*,” affirming the fetus as an active subject within the communicative relationship. These findings extend the understanding of prenatal communication by positioning emotion as one of the fetus’s primary languages in establishing an intersubjective relationship with the mother from the period of pregnancy onward.

### ***Theme 4. Spiritual Resonance: Fetal Responses to Prayer and Ritual***

The fourth theme highlights the spiritual dimension of mother–fetus communication, particularly how the fetus is perceived to respond to prayers and ritual practices performed by the mother. Several participants described that fetal movements or changes in bodily sensations emerged immediately after prayers, *dzikir*, *wirid*, rosary



prayers, or ritual chants began, even before the mother herself experienced emotional calm. These responses were interpreted as a form of spiritual resonance, in which the fetus not only receives the mother's inner state but also actively responds to the spiritual practices being performed. Within the Indonesian cultural context, which is rich in religious and spiritual rituals, these experiences are understood as a natural and meaningful form of communication. To clarify these experiential patterns, participants' accounts are summarized in Table 4 below.

**Table 4.** Spiritual Resonance of the Fetus in Response to Prayer and Ritual

Participant Code	Cultural/Religious Background	Gestational Age	Spiritual Practice	Fetal Response	Meaning Interpreted by the Mother
D1	Catholic	20 weeks	Rosary prayer	Gentle, rhythmic movements	The fetus is "praying along"
D2	Muslim	26 weeks	<i>Dzikir</i>	Movements pause briefly	The fetus is "listening"
D3	Java	30 weeks	<i>Wirid</i>	Abdomen feels softer	The fetus is calmer than the mother
D4	Bali	24 weeks	Ritual mantra	Warmth in the abdomen	The fetus responds positively
D5	Protestant	32 weeks	Hymn singing	Movements become synchronized	The fetus feels peaceful
D6	Flores	34 weeks	Family prayer	Slow, repeated movements	The fetus feels safe

Analysis of Table 4 shows that spiritual practices elicit consistent fetal responses that are recognized by mothers as positive signals. Gentle movements, brief pauses, and changes in bodily sensations such as a lighter or softer abdomen appeared repeatedly across various forms of ritual, despite differences in participants' religious and cultural backgrounds. Mothers interpreted these responses as signs of calmness, engagement, or inner alignment of the fetus with the ongoing spiritual practice. Notably, some mothers reported that fetal responses emerged earlier than changes in their own emotional states, strengthening the perception that the fetus plays an active role in these spiritual dynamics. This pattern suggests that spiritual resonance is understood by mothers as a direct and meaningful form of communication.

Furthermore, the table reveals a rhythmic alignment between the cadence of prayers or chants and fetal movements. Regular and gentle rhythms were often associated with subsequent feelings of peace and safety experienced by the mother. This process encouraged mothers to maintain or repeat certain spiritual practices as a response to perceived fetal signals. Thus, religious rituals function not only as personal practices for the mother, but also as spaces of communicative interaction between mother and fetus. This interaction is nonverbal and pre-verbal, mediated through the body and emotions, yet interpreted spiritually within each participant's cultural framework.

Overall, Table 4 affirms that spiritual resonance constitutes one of the primary pathways of fetal communication within the Indonesian cultural context. Fetal responses to prayer and ritual demonstrate that prenatal communication extends beyond biological and emotional dimensions to include a spiritual dimension embedded in mothers' everyday lives. These experiences are understood as part of the "language of the fetus," conveying comfort, a need for calmness, and inner harmony. The findings broaden the understanding of prenatal communication by positioning spiritual practices as relational media that connect mother and fetus within meaningful cultural and belief systems.

#### ***Theme 5. Maternal Intuition as a Mechanism for Translating Fetal Messages***

The fifth theme emphasizes the role of maternal intuition as the primary mechanism for translating fetal messages conveyed through bodily sensations, emotions, food preferences, and spiritual resonance. Participants described intuition as knowledge that arises spontaneously, without a conscious rational thought process, yet is experienced as highly convincing. This intuition guides mothers in making everyday decisions related to rest, diet, activities, and the avoidance of situations perceived as potentially harmful to the fetus. In mothers' experiences, intuition does not operate in isolation but is reinforced by family cultural values and intergenerational advice that

emphasize the importance of attending to *rasa* (inner feeling) during pregnancy. To clarify how intuition functions as a mechanism for translating fetal messages, participants' experiences are summarized in Table 5 below.

**Table 5.** Maternal Intuition as a Mechanism for Translating Fetal Messages

Participant Code	Cultural Background	Gestational Age	Form of Intuition Experienced	Situational Context	Meaning Interpreted by the Mother
M1	Java	28 weeks	Strong urge to stop working	Intense workload	The fetus needs rest
M2	Sunda	22 weeks	Feeling of avoiding long-distance travel	Travel planning	The fetus is at risk of fatigue
M3	Minangkabau	18 weeks	Conviction to choose specific foods	Mealtime	The fetus requires specific nutrients
M4	Bali	30 weeks	Sudden knowledge of fetal needs	No clear external trigger	The fetus is communicating its needs
M5	Flores	34 weeks	Urge to increase rest	Mild fatigue	The fetus is asking for protection
M6	Batak	26 weeks	Heightened vigilance toward certain situations	New environments	The fetus is giving a warning

Analysis of Table 5 indicates that maternal intuition functions as an interpretive bridge between fetal signals and maternal actions. Intuition appears in various forms, ranging from urges to rest, to selecting particular foods, to avoiding situations perceived as risky. Although its emergence is not always preceded by clear physical sensations, mothers experienced a strong conviction that such knowledge originated from the fetus. The consistency of these experiences across different cultural backgrounds and gestational ages suggests that intuition is understood as a legitimate and meaningful mechanism within the mother–fetus relationship, rather than as a fleeting emotional response.

Furthermore, the table shows that intuition frequently prompts concrete behavioral changes in mothers. Instinctive urges are translated into actions such as stopping strenuous activities, canceling travel plans, or adjusting dietary patterns. Mothers interpreted the perceived success of these actions—such as reduced discomfort or increased fetal calmness—as confirmation of the validity of their intuition. This process reflects a reciprocal communication pattern, in which intuition serves as the mechanism for translating fetal messages into practical decisions in mothers' daily lives.

Overall, Table 5 underscores that maternal intuition is a key component of *rasa*-based prenatal communication. Within the Indonesian cultural context, intuition is strengthened by family values and social practices that teach pregnant women to *ngrasani rasa*, or to attend closely to inner cues. Thus, intuition is not understood as irrationality, but as a form of embodied knowledge internalized through experience and culture. These findings position intuition as a central mechanism that enables mothers to understand and respond to fetal messages holistically, bridging biological, emotional, spiritual, and cultural dimensions of pregnancy.

### ***Phenomenological Essence: The Language of Rasa in the Fetus–Mother Relationship***

The phenomenological essence that emerges from the five research themes indicates that fetus–mother communication is understood by participants as a *language of rasa*, namely a pre-verbal form of communication conveyed by the fetus through a combination of sensory signals, food preferences, emotional influences, spiritual resonance, and maternal intuition. This language of *rasa* does not appear as a spectacular or extraordinary event, but rather as a subtle yet consistent, repetitive experience that becomes recognizable to the mother over time. Although rooted in the biological processes of pregnancy, the language of *rasa* is not understood reductively as a purely physiological response; instead, it is interpreted through cultural frameworks, emotional experiences, and spiritual beliefs embedded in the mother's everyday life. In this way, prenatal communication emerges as a relational process that integrally involves the body, emotions, and meaning.

Furthermore, the language of *rasa* displays a distinctive dual character: it is biological yet culturally interpreted, emotional yet structured, and spiritual yet experienced as a concrete physical reality. Bodily sensations, emotional shifts, and intuitive impulses are not experienced separately, but rather reinforce one another as a unified experiential whole. Mothers described fetal messages as not arriving in the form of words, but as felt knowledge whose validity is deeply trusted. This pattern suggests that fetus–mother communication is dialogical in nature, in which the mother not only influences the fetus but also receives and responds to messages perceived as originating

from the fetus. Such a relationship challenges hierarchical views that position the mother as the sole sender and the fetus as a passive receiver.

Conceptually, these findings open new avenues for understanding prenatal communication within the Indonesian cultural context. By positioning the language of *rasa* as the essence of experience, this study expands the discourse on prenatal communication, which has traditionally been dominated by biomedical paradigms and Western developmental psychology. Those perspectives tend to emphasize one-way causal pathways, whereas the present findings highlight the intersubjective and dialogical dimensions of pregnancy. By linking maternal experiences to global theoretical frameworks while simultaneously grounding them in Nusantara cultural values, this research offers a contextual and original scholarly contribution. The language of *rasa* thus emerges not only as an empirical finding, but also as a theoretical concept with the potential to enrich studies of communication, maternal health, and cultural perspectives on the beginnings of life.

## DISCUSSION

### The Fetus as a Subject of Communication: Shifting the Paradigm from Top–Down to Dialogical

International research on prenatal communication has largely been framed within a top–down paradigm, in which the mother is positioned as the primary sender and the fetus as the receiver of stimuli (Van den Bergh, Mulder, Mennes, & Glover, 2005; DiPietro, 2010). Within this framework, maternal hormonal changes, nutritional patterns, and auditory stimulation are understood as factors influencing fetal physiological and neurological development (Lecanuet, Fifer, Krasnegor, & Smotherman, 1995). While this approach has made significant contributions to scientific understandings of maternal and child health, it implicitly positions the fetus as a passive entity that merely reacts to maternal conditions. This perspective also limits prenatal communication to biological cause–effect pathways, thereby overlooking the possibility of more complex relational processes. Consequently, maternal experiences of feeling as though the fetus is “communicating” are often reduced to psychological responses or subjective interpretations without legitimate communicative meaning (DiPietro, 2010).

The findings of this study challenge these assumptions by demonstrating that the fetus is perceived by mothers as an active sender of messages. Participants described sensory and emotional experiences that could not always be explained by clear external stimuli, such as the abdomen suddenly feeling warm, changes in fetal movement rhythms in response to specific situations, or aversions to certain foods interpreted as the “baby’s wishes.” In addition, sudden urges to calm oneself or to avoid particular environments were also understood as messages originating from the fetus. The consistency of these experiential patterns indicates that mothers do not merely influence the fetus, but also respond to signals perceived as coming from the fetus. Prenatal communication thus emerges as an interactive process involving reciprocal sending and receiving of messages (Ammaniti, Trentini, & Tambelli, 2014).

This dialogical perspective is consistent with early intersubjectivity theory as proposed by Trevarthen (2005), which suggests that humans possess the capacity to form mutual relationships from very early stages of life. Within this framework, the fetus–mother relationship is understood as bidirectional rather than unidirectional. The findings of this study reinforce the notion that the fetus is not merely a biological object of pregnancy, but a communicative subject engaged in a dialogical relationship with the mother. This paradigmatic shift carries important theoretical implications, as it calls for an expansion of the concept of prenatal communication to include relational and intersubjective dimensions. By positioning the fetus as a subject of communication, this study opens new space for understanding pregnancy as a dialogical process between two entities that mutually influence one another even before birth.

### The Language of *Rasa* as a Medium of Pre-Verbal Communication

In Indonesian culture, the concept of *rasa* is not understood merely as a physical sensation, but as a multidimensional experience encompassing bodily sensations, intuition, emotions, spirituality, and inner vibrations (Damasio, 1999; Gallagher, 2005). *Rasa* functions as a primary medium for understanding relationships between individuals, particularly in contexts not yet mediated by verbal language (Sheets-Johnstone, 2011). The findings of this study indicate that the fetus employs *rasa* as the primary means of conveying messages to the mother. These messages do not appear in the form of linguistic symbols, but rather as changes in bodily sensation and inner states that are directly recognized by the mother. In this way, *rasa* serves as a medium of pre-verbal communication that enables the exchange of meaning prior to the development of linguistic capacity. This framework extends the understanding of prenatal communication beyond biological mechanisms to encompass communicative processes grounded in embodied experience.

These findings resonate with Merleau-Ponty’s (1962) concept of embodied communication, which positions the body as the primary locus of meaning before messages are articulated in language. From this perspective, the

body is not merely a biological object, but a subject that experiences and interprets the world. Mothers recognize fetal messages through sensations such as abdominal warmth, spontaneous tension, changes in fetal movement rhythms, or what they describe as “inner vibrations.” These experiences are understood directly, without conscious cognitive processing, yet are felt as highly real and meaningful. This suggests that fetus–mother communication occurs at a pre-reflective level, where meaning emerges through bodily experience before being translated into narrative or rational explanation.

Although experiences of *rasa* are phenomenologically universal, the ways in which mothers interpret and assign meaning to these experiences are strongly shaped by culture (Ingold, 2000). Nusantara cultural systems provide interpretative vocabularies that allow such pre-verbal experiences to be articulated, such as *tandana orok* in Sundanese culture, *pitutur saka njero* in Javanese culture, *xin gan ying* in Indonesian Chinese communities, or more general expressions such as *geter anak*. These terms illustrate how culture functions as a bridge between bodily experience and social meaning. Thus, the language of *rasa* is universal in experience but particular in interpretation. This finding underscores that fetal pre-verbal communication cannot be separated from the cultural contexts that structure the meanings mothers assign to the *rasa* they experience.

### Fetal Food Preferences and the Cultural Memory of the Maternal Body

One of the most salient findings of this study is that the fetus is perceived as “selecting” foods that make the mother feel comfortable and rejecting foods that cause discomfort. This phenomenon of fetal food preferences can be discussed from two complementary perspectives.

#### The Biomedical Perspective

From a biomedical perspective, many of the experiences reported by mothers during pregnancy can be explained through well-established physiological mechanisms (Glover, 2011). Nausea and vomiting, for instance, are understood as bodily responses to hormonal changes and heightened sensitivity to specific nutrients. Strong food aromas may trigger adverse reactions due to increased olfactory sensitivity during pregnancy, while the fetal nervous system is known to begin responding to chemical and sensory stimuli from early stages of development (Monk et al., 2012). This biomedical framework provides an important foundation for understanding how maternal and fetal bodies interact biologically and has contributed substantially to clinical practices focused on maternal and fetal health and safety.

However, biomedical explanations tend to stop at physiological cause–effect relationships and do not fully account for the subjective meaning of maternal experience (Carel, 2016). When mothers state that the fetus “rejects” certain foods or “requests” particular conditions, such experiences are often reduced to hormonal symptoms or neural responses, stripped of communicative significance. This approach leaves little room for the ways in which mothers interpret and meaningfully respond to their bodily experiences. As a result, the relational dimension and the lived experience of pregnancy are frequently marginalized, despite the fact that they form the basis of everyday decision-making during pregnancy.

The findings of this study do not reject biomedical explanations, but rather highlight their limitations in capturing the complexity of prenatal communicative experience. Maternal experiences encompass more than physiological reactions; they involve interpretation, meaning-making, and relational responses to signals perceived as originating from the fetus. Accordingly, biomedical perspectives need to be complemented by approaches capable of addressing experiential and communicative dimensions. Integrating biological understanding with subjective meaning allows for a more holistic view of pregnancy as a process that is not only physiological, but also communicative and relational.

#### The Cultural Perspective

Within the Indonesian cultural context, food during pregnancy is not understood merely as a source of biological nutrition, but as part of a meaning system rich in symbolic and emotional value (Geertz, 1973). Foods such as *sayur asem*, red-and-white rice porridge (*bubur merah-putih*), clear soups, and local mangoes hold a special place as “womb-warming foods” or “balancers of *rasa*.” These foods are commonly associated with bodily calm, emotional balance, and protection for both mother and fetus (Scheper-Hughes & Lock, 1987). Traditional foods also carry affective memories of childhood and family life, such that their consumption not only fulfills physical needs but also evokes a sense of safety and cultural continuity. Within this framework, eating practices during pregnancy become a space of interaction between the body, memory, and cultural meaning (Mintz & Du Bois, 2002).

When the fetus is perceived to respond positively to these foods—through calm movements or sensations of bodily comfort—mothers interpret such experiences as signals of comfort sent by the fetus. This interpretation does not arise in a cultural vacuum, but is shaped by intergenerationally transmitted cultural knowledge. Mothers understand that certain foods are “suitable” for pregnancy not only because of their nutritional content, but

because of the *rasa* embedded within them. In this sense, fetal responses to traditional foods are understood as a form of alignment between the maternal body, the fetus, and the cultural memory carried by the food itself. This process illustrates that prenatal communication takes place through media that are familiar and meaningful within mothers' everyday lives.

These findings are consistent with theories of cultural embodiment, which argue that the body is never neutral but is always shaped by memory, experience, and cultural values. From this perspective, fetal responses to food are not understood solely as reactions to nutritional components, but also to the emotional and spiritual meanings embedded in eating practices. In other words, the fetus is perceived as responding not only to what the mother eats, but also to the meanings that the food carries. This suggests that prenatal communication unfolds within a living cultural space, where the body, food, and collective memory are deeply intertwined. The findings reinforce the argument that understandings of fetus–mother communication must consider cultural dimensions as an integral part of the pregnancy experience.

### **Emotional Communication: The Fetus as a Sender of Affective States**

The finding that mothers experience emotional changes perceived as “originating from the fetus” significantly extends existing understandings of affective communication in the prenatal context (Trevarthen & Aitken, 2001; Broughton, 2001). To date, prenatal psychology and biomedical sciences have predominantly emphasized the influence of maternal emotional states on the fetus through hormonal, neuroendocrine, and physiological mechanisms (Schore, 2005). Within this framework, the mother is positioned as the primary regulator of emotion, while the fetus is conceptualized as a passive recipient of emotional effects. Such models implicitly assume a unidirectional flow of affect from mother to fetus.

The findings of this study challenge this assumption by revealing a perceived reverse emotional flow, in which mothers report shifts in mood and inner states that are not clearly attributable to external circumstances or personal psychological conditions (Fuchs, 2016). These affective changes—often emerging suddenly and without identifiable triggers—are interpreted by mothers as emotional messages sent by the fetus. Rather than being experienced as intrusive or pathological, these emotional signals prompt mothers to adjust their behavior, pace of activity, and surrounding environment in order to restore comfort and balance. In this sense, emotional experience functions as a communicative signal that initiates relational regulation rather than as an isolated intrapsychic event. The emotional experiences described by participants include sudden urges to pray, strong desires to withdraw from crowded environments, heightened sensitivity, and an unexplainable need for calm and stillness. Mothers consistently interpret these experiences as indications that the fetus requires tranquility or particular conditions to feel secure. This interpretive process highlights the role of emotion as a nonverbal, relational medium of communication (Slaby & Gallagher, 2015). Emotions are not merely internal states but are experienced as meaningful messages that shape interaction and guide maternal decision-making.

These findings resonate with Stern's (1985) concept of *affective attunement*, but with a reversed directional emphasis. Classical formulations of affective attunement focus on how caregivers adjust their emotional expressions to match and regulate the infant's affective states after birth. In contrast, the present study suggests that, during pregnancy, the fetus is perceived as guiding or entraining the mother's emotional rhythm. This perception creates a bidirectional affective dynamic in which emotional regulation is jointly constituted. The fetus is not simply regulated by the mother's emotions, but is understood as participating in the modulation of maternal affect, thereby shaping the emotional climate of the pregnancy.

Within the Indonesian cultural context, this phenomenon is not considered anomalous, but rather aligns with widely held understandings of pregnancy as an encounter between two spirits inhabiting a single body. Cultural beliefs that the unborn child possesses a spirit capable of interacting with the mother's inner life provide a coherent interpretive framework for these emotional experiences. From this perspective, the findings of this study may be viewed as contemporary anthropological evidence that such cultural beliefs rest upon a strong phenomenological foundation. By systematically documenting maternal experiences, the study bridges culturally embedded knowledge and contemporary psychological theory. In doing so, it enriches the discourse on affective communication by positioning the fetus as an active emotional agent from the earliest stages of life.

### **Spiritual Resonance: Communication within a Transcendent Space**

The phenomenon of fetal responses to spiritual practices—such as prayer, *dzikir*, chanting, rosary recitation, and family rituals—demonstrates that fetus–mother communication is not confined to physical and emotional dimensions alone (Walach et al., 2009). Many mothers reported that the fetus began to move gently, became momentarily still, or adjusted its movement rhythm immediately after spiritual practices commenced, often before the mother herself experienced emotional calm. These responses were perceived as signs of the fetus's active engagement within the spiritual space invoked by the mother. Importantly, these experiences were not interpreted as coincidental biological reactions, but as meaningful forms of communication involving a transcendent

dimension. Spiritual practices thus function as communicative media that enable an intimate inner connection between mother and fetus, operating beyond the limits of verbal language and observable bodily expression (Luhmann, 2012). Within this framework, spirituality provides a relational field in which shared presence, calm, and attunement are experienced directly rather than symbolically.

From a phenomenological perspective, these experiences can be understood as instances of *transcendent intersubjectivity*, defined as forms of relational experience that surpass language, bodily intentionality, and reflective consciousness (Depraz et al., 2003). This intersubjectivity is lived through *rasa*, felt presence, and affective alignment. The mother and fetus are perceived as inhabiting a shared relational space, where meaning is not transmitted through signs or symbols, but through resonance, rhythm, and mutual calm. Such experiences expand prevailing models of prenatal communication by recognizing the transcendent as a legitimate and meaningful dimension of lived experience. Crucially, these spiritual experiences are not detached from the body; rather, they are embodied and felt through physical sensations, emotional shifts, and subtle changes in fetal movement (Depraz et al., 2003). This integration challenges dualistic separations between body and spirit, instead presenting spiritual communication as an embodied phenomenon embedded within everyday maternal experience.

Within Indonesian culture, spiritual space is deeply interwoven with daily life, rendering fetal communication through spirituality both natural and culturally intelligible (Luhmann, 2012; Walach et al., 2009). Pregnancy is widely understood not only as a biological process, but also as a spiritual journey involving the mother, fetus, family, and broader community. From this perspective, spiritual resonance constitutes a third major dimension of prenatal communication, alongside physical and emotional channels. The scientific contribution of these findings lies in their recognition of prenatal communication as potentially occurring within culturally structured transcendent spaces. To date, very few global studies have systematically explored fetus–mother communication within a spiritual framework. By incorporating spirituality as an analytic dimension, this study expands the scope of prenatal communication research and highlights the importance of culturally grounded, holistic approaches to understanding early human relational life.

## 6. Maternal Intuition as the Interpreter of Fetal Language

Maternal intuition emerges as a primary mechanism through which the language of the fetus—expressed via bodily sensations, emotional shifts, and spiritual resonance—is understood and responded to. Within phenomenological philosophy, intuition is conceptualized as a form of immediate knowledge that precedes conceptual formulation and linguistic articulation. This form of knowing arises prior to rational reflection and is experienced as inner certainty rather than inferential judgment (Bergson, 1911; Polanyi, 1966). In the context of this study, intuition functions as an interpretive instrument that translates the fetus’s pre-verbal signals into concrete maternal actions. Through intuition, mothers are able to grasp the meaning of experiences that cannot be logically explained yet exert tangible influence on everyday decision-making throughout pregnancy. Intuition thus operates as an inner communicative medium that enables understanding between mother and fetus without reliance on symbolic language (Depraz, 2021).

More specifically, intuition acts as an emotional compass and an inner sensor that guides mothers in maintaining balance for both themselves and the fetus. Impulses to rest, avoid certain environments, choose particular foods, or seek calm often arise as strong and convincing feelings. Mothers do not interpret these impulses as anxiety or mere suggestion; rather, they are understood as messages that require response in order to ensure fetal comfort and well-being. This process demonstrates that intuition is not passive, but actively directs maternal behavior. Intuition functions as a mechanism of relational regulation, sustaining harmony within the fetus–mother relationship and revealing that prenatal communication unfolds through an integrated system encompassing the body, emotion, and inner awareness.

Within Indonesian cultural contexts, maternal intuition is further reinforced by values and traditions that emphasize inner sensitivity and embodied awareness. Concepts such as *ngajaga rasa* in Sundanese culture, *eling lan waspada* in Javanese tradition, and the widespread practice of “listening to the heart” across various ethnic groups illustrate that intuition is regarded as a form of wisdom rather than irrationality. In pregnancy, intuition is understood as a biological–spiritual capacity that enables deep connection between mother and fetus. This study affirms that maternal intuition is not merely a subjective experience, but a communicative mechanism that is both phenomenologically grounded and culturally meaningful. As such, intuition occupies a central position as the interpreter of fetal language within a holistic prenatal relationship.

## Theoretical Contributions of the Study

The first theoretical contribution of this study lies in the proposal of a new model of prenatal communication that challenges dominant assumptions in international literature. Traditionally, prenatal communication has been conceptualized primarily as a unidirectional process from mother to fetus, with the mother functioning as the source of biological and emotional stimuli. The findings of this study demonstrate that communication also flows

from the fetus to the mother through a range of signals that are consistently perceived and meaningfully interpreted. Consequently, the fetus–mother relationship is reconceptualized as dialogical and bidirectional. This model expands communication theory by recognizing the prenatal actor as an active subject and by framing pregnancy as a dynamic interactive process that begins prior to birth. This paradigm shift holds important implications for interpersonal communication studies, early developmental psychology, and maternal health research.

The second theoretical contribution is the development of the concept of the *language of sensation* (*bahasa rasa*) as a medium of pre-verbal communication. The language of sensation is understood as a communicative system that integrates sensory, emotional, and spiritual dimensions into a unified experiential whole. Unlike symbolic language, which relies on signs and linguistic structures, the language of sensation operates through the body, intuition, and directly felt inner experience. This concept provides an analytic framework for understanding how messages can be transmitted and received in the absence of verbal language. By introducing the language of sensation as a theoretical category, this study extends communication theory into the pre-linguistic and embodied domains. Moreover, the concept bridges biomedical and phenomenological approaches by positioning bodily experience as the central site of communicative meaning.

The third theoretical contribution lies in the use of Nusantara cultural frameworks as the foundation for interpreting prenatal communication. Indonesian culture functions as a form of *lingua franca* that supplies vocabulary, symbols, and values for making sense of fetal signals. Local concepts such as *rasa*, inner signs (*tanda batin*), and bodily sensitivity enable pre-verbal experiences to be articulated in meaningful ways. By positioning culture as an active element in communication theory, this study affirms that communication cannot be separated from its cultural context. This contribution opens pathways for the formulation of a culturally grounded theory of fetus–mother communication based on Indonesian perspectives—one that is not only locally relevant but also capable of enriching global discourse on prenatal communication and the origins of human relational life.

## CONCLUSION

This study demonstrates that fetus–mother communication within Indonesian cultural contexts is not a unidirectional process, as commonly assumed by conventional biomedical paradigms, but rather a dialogical relationship initiated by the fetus. Through phenomenological analysis of the lived experiences of 30 pregnant women, the findings reveal that the fetus consistently transmits messages through multiple mechanisms that mothers interpret as a *language of sensation* (*bahasa rasa*). This language of sensation encompasses sensory signals, food preferences, emotional communication, spiritual resonance, and intuition, all of which are integrated within the maternal body as the primary medium of interpretation.

The findings further affirm that the fetus functions as a communicative subject capable of influencing the mother's body, emotional states, and everyday behaviors. In turn, mothers interpret these messages through the cultural lens of the Nusantara tradition, which provides a meaningful structure for understanding such experiences. Consequently, prenatal communication cannot be separated from cultural context, spirituality, and forms of local knowledge that have been transmitted across generations.

By proposing a culturally grounded and phenomenologically informed model of prenatal communication based on the language of sensation, this study addresses a significant gap in the international literature. The proposed model is holistic, intersubjective, and culturally embedded, expanding scientific understanding of the fetus–mother relationship as an ongoing interaction between two souls within a single body, mutually influencing one another well before birth.

## RESEARCH IMPLICATIONS

### Implications for Maternal and Child Health Practices

The first implication of this study is the need for a holistic approach in antenatal care services. Maternal and child health practices have traditionally been dominated by a focus on biomedical indicators such as blood pressure, body weight, and fetal physical development. The findings of this study demonstrate that mothers' experiences of perceiving fetal signals—whether in the form of bodily sensations, emotional shifts, or intuitive impulses—constitute a meaningful component of the pregnancy process. Therefore, healthcare professionals need to recognize these experiences as culturally valid subjective information rather than dismissing them as mere complaints or psychological suggestion. A holistic approach allows for the integration of clinical data with mothers' lived experiences, thereby fostering antenatal care that is more humanistic, responsive, and attuned to the socio-cultural realities of Indonesian society.

The second implication concerns the reinforcement of the mother's role as an interpreter of fetal messages. Within a dialogical framework of prenatal communication, the mother is not merely an object of medical care but an active agent with the capacity to perceive and interpret fetal signals. Pregnancy counselors, midwives, and other healthcare providers can function as facilitators who assist mothers in recognizing recurring patterns of sensation, emotion, and intuition throughout pregnancy. This approach supports deeper prenatal bonding while simultaneously enhancing maternal confidence in navigating pregnancy. By validating maternal intuition as a form of embodied knowledge, healthcare services can promote a more attuned, empathetic, and self-aware fetus–mother relationship, without compromising established medical standards.

The third implication highlights the importance of integrating spirituality, culture, and emotional support into pregnancy education. This study indicates that spiritual practices, family rituals, and traditional foods play a significant role in shaping a sense of safety and well-being for both mother and fetus. Accordingly, culturally sensitive pregnancy education should provide space for these practices, provided that they do not conflict with medical safety principles. In addition, attention to maternal mental health is essential, as maternal emotions not only influence fetal conditions but also function as a medium for reciprocal communication. By strengthening maternal emotional well-being, healthcare services contribute to the creation of a healthy, stable, and meaningful space for prenatal communication.

### Implications for Communication Studies and Cultural Studies

The first implication of this study for communication studies lies in the expansion of interpersonal communication theory. Interpersonal communication has traditionally been defined as the exchange of messages between two individuals through verbally and nonverbally observable forms of expression. The findings of this study demonstrate that communication can occur without symbolic language, without spoken utterances, and without direct physical contact, yet remain meaningful and structured. Fetus–mother communication unfolds through the medium of *rasa*—bodily sensation and intuition—thereby challenging the conventional boundaries of communication as currently defined. Accordingly, this study urges communication scholarship to recognize pre-verbal and embodied forms of communication as legitimate domains of inquiry, particularly within relationships that are profoundly intimate and existential, such as those characterizing the earliest stages of human life.

The second implication concerns the reinforcement of the concept of prenatal intersubjectivity within communication and cultural studies. The fetus–mother relationship reveals the existence of a shared space that is not purely physical but is constituted through emotional resonance, intuition, and bodily responsiveness. Within this space, meaning is not produced unilaterally but emerges from subtle, ongoing reciprocal attunement. This finding extends prevailing discussions of intersubjectivity, which have largely focused on mother–infant relationships after birth. By situating intersubjectivity in the prenatal phase, this study affirms that human relational capacity is already operative prior to the development of language and reflective consciousness.

The third implication is the emergence of the concept of *bahasa rasa* as a culturally grounded theoretical contribution from Indonesia. *Bahasa rasa* integrates the body, emotion, spirituality, intuition, and cultural memory into a coherent communicative system. This concept enables a rearticulation of pregnancy within the Nusantara cultural context—not merely as a biological process, but as a multidimensional communicative process long embedded in local cultural practice. By translating these lived experiences into academic discourse, this study bridges local knowledge and global theory, while opening new pathways for the development of communication theory rooted in Indonesian cultural values and experiential realities.

### Implications for Future Research

The first implication of this study is the need to further develop and empirically test a conceptual model of fetus–mother communication on a broader scale. The model generated in this study remains contextual, grounded in maternal experiences within specific Indonesian cultural settings. Future research may examine this model across different cultural, religious, and belief systems to assess both its universality and its cultural specificity. Such comparative testing is essential to determine whether the concept of *bahasa rasa* represents a phenomenologically universal mode of communication or a culturally situated construct. In addition, quantitative or mixed-methods approaches may be developed to operationalize components of fetus–mother communication—such as sensory signals, emotional responses, and intuition—into more systematic measurement instruments.

The second implication concerns the integration of fetal biometric data with maternal phenomenological data. Future studies may combine mothers' subjective interpretations with objective indicators such as fetal heart rate, fetal movement patterns, maternal heart rate variability, or stress-related hormonal changes. This interdisciplinary approach enables cross-validation between meaning-making experiences reported by mothers and physiologically measurable signals. Importantly, such integration is not intended to reduce maternal experience to biological data alone, but rather to enrich understanding of how biological signals and cultural meaning interact dynamically. In



this way, fetus–mother communication can be understood as a phenomenon situated at the intersection of biology, psychology, and culture.

The third implication highlights the need for longitudinal research and cross-cultural comparative studies. Longitudinal designs would allow researchers to observe the dynamics of fetus–mother communication from early pregnancy through the postnatal period, thereby examining continuity or transformation in communicative patterns after birth. Moreover, comparative studies across Indonesian ethnic groups—such as Sundanese, Javanese, Papuan, Balinese, Minangkabau, or Dayak communities—would enrich the mapping of variations in *bahasa rasa* through which mothers interpret fetal messages. Such approaches may reveal how cultural structures, rituals, and local values shape the understanding and practice of prenatal communication. Consequently, future research holds the potential to produce a comprehensive and multilayered map of prenatal communication within the diverse cultural landscape of the Indonesian archipelago.

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