

# Exploring the integration of Indigenous traditional birth attendants into the western healthcare system: A qualitative case study from the Amazon of Ecuador

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## ABSTRACT

**Background:** Indigenous populations in Latin America are often at the crossroads of traditional and Western healthcare systems. Despite the cultural significance of traditional medicine, integration into Western healthcare practices remains challenging. Ecuador has been at the forefront of embracing intercultural health, aiming to merge these distinct medical paradigms effectively. This study sought to systematize the experience of integrating Indigenous traditional birth attendants (TBAs) into the Western healthcare system in the Amazon region of Ecuador, identifying the enabling factors and challenges of such an integration to enhance healthcare access and quality for Indigenous communities.

**Methods:** Employing a qualitative case study design, the research involved conducting key informant interviews with 15 participants, comprising TBAs and midwives, in the province of Orellana, Ecuador. Thematic analysis was utilized to interpret the data, focusing on the participants' experiences, perceptions, and the operational dynamics of the integration process.

**Results:** The study revealed initial scepticism towards integration, which was gradually overcome through mutual learning and adaptation processes, highlighting the importance of cultural sensitivity and bidirectional knowledge exchange. Integration seemed to have facilitated healthcare access, with TBAs playing a pivotal role in bridging cultural and linguistic gaps, thus enhancing Indigenous women's comfort and trust in healthcare services. Despite these advances, TBAs faced significant challenges, including financial constraints and logistical difficulties, underscoring the need for continued support and sustainable integration strategies.

**Conclusion:** Integrating TBAs into the Western healthcare system in the Ecuadorian Amazon has shown promise in improving healthcare access for Indigenous women by fostering an environment of mutual respect and cultural sensitivity. However, to ensure the sustainability and effectiveness of such integrative health models, it is imperative to address the identified challenges and support the continuous development of TBAs and healthcare professionals alike. Future research should aim to quantitatively evaluate the health outcomes of this integration and explore its scalability to other regions.

**Keywords:** intercultural health, traditional birth attendants, integration, Indigenous, Ecuador

**Abstract in Español at the end of the article**

## INTRODUCTION

Most Indigenous people in Latin America find themselves at the intersection of two different medical systems paradigms [1, 2]. While traditional medicine still plays an important role [3], the use of western healthcare is also common. However, particularly in the latter, Indigenous people often report a lack of proper attention and cultural understanding, economic barriers, long waiting times, and even discriminatory behaviors [4-6]. In an attempt to solve this situation, integrating traditional Indigenous health practices (for instance, through traditional midwives or healers) into western healthcare has been encouraged as an alternative strategy [7, 8]. The core idea is that the two different medical practices meet under the premise of mutual recognition and respect, in the so-called concept of ‘intercultural health’ [9].

The revaluing of the Indigenous traditional health knowledge and practices by western healthcare is being mainly promoted as a way to generating trust into the system and thus lowering the barriers to healthcare access and increasing patient satisfaction in Indigenous communities [5]. The integration might also strengthen the cultural pride and organization and benefit them in a broader context, including wider social determinants of health [2, 10]. However, the integration of these two completely different health paradigms is complex. Critics argue that the implementation of intercultural health policies often faces challenges in effectively incorporating traditional Indigenous healing practices into mainstream healthcare systems [7, 8]. There are concerns about power imbalances, with some viewing intercultural health as a top-down approach imposed by governments rather than a collaborative, grassroots effort. Additionally, critics have highlighted the risk of cultural essentialism, where Indigenous communities may be homogenized, overlooking the diversity within these groups, and for being insufficiently responsive to local contexts and failing to address the socioeconomic determinants of health. Some also argue that intercultural health programs may inadvertently perpetuate existing inequalities or result in tokenistic gestures rather than meaningful integration of traditional and western healthcare systems [7, 11-13].

In Latin America, several experiences of intercultural healthcare have been described since the concept was developed in the 1990s [10, 14]. For instance, in Mexico, through a participatory approach and a progressive respectful interaction between local health personnel and traditional midwives, better outcomes in terms of referrals and birth complications were achieved [2]. In Guatemala, a patient-centred boundary intervention involving councils of elders was developed to create access, build trust and foster mutual learning between biomedical and traditional knowledge systems [15]. In Bolivia, the implementation of a health centre where both indigenous traditional and western medicine were applied encountered numerous conflicts in cross-cultural interactions and the need for a two-way knowledge translation

and capacity building activities, were acknowledged [16]. Chile has gone further than many other countries initiating processes where the Indigenous Mapuche organizations are managing their respective health centres, implementing their own models of care and health promotion, in coordination with the official health services [17].

A country that has pushed forward the intercultural health approach in the region has also been Ecuador. In 2002 the modernization of the health sector in Ecuador began by developing guidelines about an intercultural health concept to recognize “the plurality of knowledge, the vision of cultural diversity, the promotion of the interrelation between traditional and alternative medicine” [18]. With the change of Constitution in 2008, the issue of intercultural health was addressed more specifically in the country and the positioning of traditional medicines and alternative services got embedded into the Ministry of Health (MoH) [19]. During 2009-2013, the government created a national plan for “Good living” intending to build a plurinational and intercultural state, where the intercultural approach would permeate the entire health system [20]. Supported by this legal framework, different experiences of intercultural health have been reported in the country.

A widely hailed success is the implementation of the vertical birth in the hospital of Otavalo in 2007 [21]. Rooms were culturally adapted, and traditional birth attendants (TBAs) were incorporated into the labour ward. Their role was to support women and provide traditional care (e.g. herbal remedies) throughout labor in collaboration with health professionals. A similar experience has been reported from a nearby location, Cotacachi [22]. However, the sustainability of these experiences has been challenging and divisions among TBAs and a lowering role of the TBAs by the MoH have been lately reported [23]. While the MoH seems to be clear about its vision of what intercultural health is [24], several cases from the country have pointed out the difficulties to establish a real level of mutual respect and cross-cultural understanding that aims for symmetry in these two worlds of understanding health and health care [23, 25].

### *Maternal delivery care in Ecuador*

Ecuador has 17,9 million inhabitants (2021), the majority living in the coastal and mountain regions of the country. Most (71.9%) of Ecuador’s population is Mestizo (mix of Indigenous and white) while the Afro-Ecuadorians and Indigenous groups each represent around 7% of the population; the remaining are classified as white or other. Traditionally the Amazon region was inhabited exclusively by several Indigenous populations, but since oil was discovered in the 1970s, people from other parts of the country started to move there. Even though the Amazon region covers approximately 47% of the country’s total area, only 5% of Ecuador’s total population lives in the Amazon region [26].

Despite a moderate rate of maternal mortality

(57.6/100,000 live births in 2020) compared to other countries in the region (87 in the Latin American region), Ecuador has been struggling to decrease maternal deaths in the last decade [27]. Significant differences can still be seen between different ethnic groups; for instance, between 2014 and 2017, maternal mortality was 69% higher in Indigenous than in Mestizo women [28]. The poorer maternal health outcomes for Indigenous women can be linked to a combination of sociodemographic and economic factors such as poverty, marginalization, and the challenges in accessing health services. Process indicators such as the use of institutional delivery and the use of well-educated midwives, both relevant for maternal survival, are significantly lower amongst Indigenous women [29].

There is a long history of work conducted by Indigenous TBAs in Ecuador [30]. Indigenous women traditionally give birth at home, being looked after by a TBA, with one-on-one attention. An important cultural factor for Indigenous women is to give birth in the position they want, often an upright position, the so-called 'vertical birth', which is generally not allowed in the western healthcare system [31]. Populations-based studies have estimated that around 20% of women give birth outside of healthcare facilities in the Amazon region [32]; most of these births are attended by TBAs.

The MoH has since the 1990s developed documents around intercultural maternal care [33-35]. In 2008, the MoH implemented the National Plan for the Accelerated Reduction of Maternal and Neonatal Mortality, whose objectives were to improve access, opportunity, continuity, and quality of care for women of childbearing age and neonates, with a family, intercultural and inter-institutional focus, in line with the national primary health care strategy [36]. To make the intercultural approach operational in the provision of services, a holistic approach to the health of ancestral cultures was recommended. For that purpose, in 2023 the "Manual of Articulation of Practices and Knowledge of Traditional Birth Attendants" was published aiming to build bridges able to maintain respectful and horizontal alliances between health services and the TBAs, putting into practice the dialogue of knowledges and interculturality in health [37].

Although several intercultural health policies have been promoted in Ecuador in the last two decades [33-35], documentation of intercultural health experiences in the country is still limited, and none of them has been reported from the Amazon region. Given the lack of national studies investigating how the integration is possible and what factors are required for its functioning, this study aimed to systematize the experience of intercultural health among Indigenous TBAs and to identify the challenges experienced by these TBAs in carrying out their work in the Amazon region of Ecuador.

## METHODS

### Study setting

This study was conducted in the province of Orellana, Amazon region of Ecuador. In this province, Indigenous TBAs are organized in three associations, corresponding to the geographical area of three counties: Orellana, la Joya de los Sachas and Loreto (Figure 1). The setting was chosen because of the long presence of TBAs in the area and the experience of healthcare integration implemented.

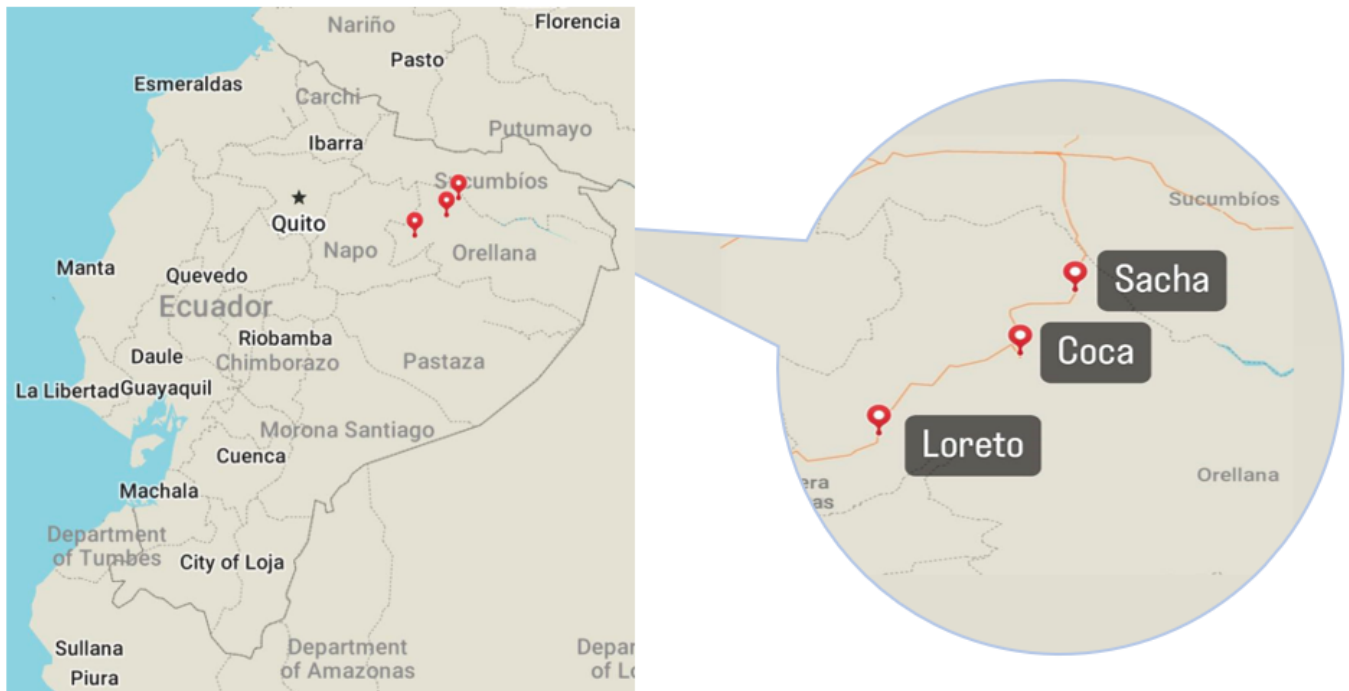
While most of the TBAs in the region work attending to deliveries at the women's homes, few of them (around 4-8 in each health center) have been recruited to work in the healthcare centers. The selection of these TBAs was done by their associations. In these facilities, TBAs work with different tasks, from family planning to assisting during the process of labor with traditional plants, massages, and other treatments to ease the women's pain. Deliveries are attended in a separate house close to the health center in the case of Loreto and in the same health center in the other two locations together with the midwives. These TBAs received certain economic support for their living expenses (around \$300/month) provided by the Orellana Provincial Board. Those TBAs working in the communities and are member of the TBAs associations, get also paid a small amount per control and number of births attended during the year (\$25-50 per respective, depending on the area). All the organized TBAs receive regular training (every 1-3 months) from the midwives or doctors of the healthcare centers they belong to. Once a specific training is finished, the TBAs are certified by the MoH and can start to receive economic support.

### Study design

This was a qualitative case study [38] where 15 key interviews (11 with TBAs and 4 with midwives, all women) were conducted. Participants were over 18 years old, fluent in Spanish, and were or had previously been working as a TBA or formal midwife in the selected study area. The TBAs and midwives were recruited through personal connections with the local Kichwa Community Health Workers Association "Sandi Yura". Sandi Yura collaborates regularly with the health centers of Coca, Sacha, and Loreto counties and knows well both the TBAs and midwives of the respective health centers.

### Data collection

All interviews were held during September and October 2023 by the first author. The interviews were held in Spanish and lasted around 30-45 minutes on average. One of the interviews was held over Zoom, while the rest were conducted face-to-face. Twelve of the interviews took place in healthcare facilities, while three were done in the participants' homes. Two semi-structured interview guides were used, one specific for the TBAs and one for the midwives. The guide covered mainly topics related to the collaboration between the TBAs and midwives and the challenges of working as TBA in their communities. The interview guide was developed by



**Figure 1.** Map of Ecuador and the study locations (source: MAPS.ME)

the authors having in mind the aim of the study. Preliminary guides were reviewed by experts in the field of TBAs and maternal health in Ecuador. A pilot interview was conducted with one midwife, that was also later incorporated into the analysis.

### Data analysis

The recordings of the interviews were transcribed verbatim and reviewed by two of the authors to ensure accuracy. The data was analyzed by using thematic analysis as proposed by Braun & Clarke, keeping the following six-step process [39]); i) familiarization with the data through repeated readings to gain a sense of the content; ii) generating initial codes, highlighting elements relevant to the research question; iii) searching for themes by examining the relationships between different codes and data segments; iv) reviewing themes where these were refined by reviewing their relevance to the entire data and ensuring they told a coherent story; v) defining and naming themes; and vi) writing the narrative around the identified themes, integrating quotes or data excerpts to support interpretations. Throughout the analytic process, an inductive and reflexive approach was maintained, allowing themes to emerge from the data rather than imposing preconceived notions. Coding involved numerous discussions within the research team, leading to continuous refinements and multiple rounds of analysis.

### Ethical considerations

This project is part of a bigger project called “What is the role of community health workers in the health care system of Ecuador? A qualitative approach” which

received ethical approval from the Ethical Committee of Universidad San Francisco de Quito (dnr IE02-EX058-2023-CEISH-USFQ). Before conducting the interviews, each participant was informed about the study’s aim and implications, and that they could withdraw at any time without consequences. The participants signed an informed consent where they approved their participation in the study and the recording of the interviews. All participants were informed that none of the identifiers, except for location, would be disclosed during the dissemination process, including scientific publications. A Spanish version of this manuscript will be delivered to all participants.

## RESULTS

The analysis of the 15 interviews (11 TBAs, 4 midwives) resulted in five main themes: initial skepticism was overcome, bidirectional learning process, integration increased access to healthcare facilities, TBAs in the communities are still needed, and committed despite challenges.

### Initial skepticism was overcome

The collaboration with the TBAs was initially promoted by the MoH to reduce the higher MMR among Indigenous women in the region. The process looked different in each location, but it started at the beginning of 2000 first in Loreto, then in Coca and around 2015 in Sachas by organizing the existing TBAs in the area through a process of training by the MoH. The presence of key midwives, the openness of the MoH and the support of NGOs contributed to facilitate the process.



*“It started because, at the national level, it was observed that there were many problems with TBAs; there were a lot of home births, and with home births, there were many patients with complications with the babies or maternal deaths. So obviously, the indicator for home births was extremely high and they looked for the cause. The cause was that patients did not want to come to the units because of the issue of culture. /.../ So, the MoH coordinated with the Decentralized Autonomous Governments to create a manual.” (Midwife 3)*

*“Some promoters arrived and said that it’s good for you to train more, you can learn more in the hospitals. They needed TBAs who worked there, they said.” (TBA 2)*

TBAs were then invited by the local MoH to deliver at the health centers in coordination with the midwives. One of the conditions required by the TBAs to start the intercultural practices at the healthcare centers was to adapt the delivery rooms to their cultural environment, emphasizing the delivery in vertical position.

*“They (TBAs) made us put up a wooden beam wrapped up to hang from there, a sheet or a rope so that they can give birth in their vertical way. They made us buy low wooden beds so they could lie down. They made us buy small wooden chairs adapted for an intercultural birth. /.../ They were not only there accompanying the birth, but they also carried out their therapies, steam baths, use of medicinal plants, procedures for childbirth.” (Midwife 1)*

Both midwives and TBAs explained that when the collaboration started there was a lot of skepticism among all the healthcare personnel in the health centers about whether the approach should be allowed. This was mainly explained by a lack of trust in their skills, with some midwives even fearing to be replaced from their jobs by the TBAs.

*“In the beginning, they did not let us (TBAs) enter the delivery room, only them, we were pushed away.” (TBA 11)*

*“The rejection at first was strong. Yes, to the point that they did not allow the TBAs to enter the hospitals. /.../ There was rejection because they thought that TBAs were going to replace the midwives.” (Midwife 1)*

Over time, through joint efforts and numerous meetings, stability was achieved in the relationship, leading to an increase in the acceptance of TBAs by Western healthcare providers. Such acceptance has subsequently been institutionalized at the level of health centers.

*“When the awareness process started, it became very clear what the process was about. It was about accompaniment. It was a win-win between them and us. In other words, there was never a moment when there was going to be a replacement, neither in their work nor anything else. On the contrary, we, in the territory, are the ones who allow this articulation, we are the ones who join these processes, we are the trainers of the TBAs.” (Midwife 1)*

*“It’s an effort we make together, I believe. If one is missing, it’s like 50% is lost. We complement each other.” (Midwife 4)*

### **Bidirectional learning process**

An important strategy of the MoH to decrease maternal mortality was to train TBAs at the community level, both in handling emergencies and in referrals. This training was considered very relevant by the midwives.

*“There are patients who, no matter what you tell them, want to give birth at home and nothing can be done about it, but at least they have trained TBAs available. So, the goal of having created the articulation of TBAs, is that they are fully trained in issues of obstetric complications, warning signs of the pregnant woman, warning signs of the newborn, and the timely manner of making the transfer. Because they also know where they have to call, it reduces the time (to healthcare facilities) and we can save the mother, and sometimes the baby.” (Midwife 3)*

Both TBAs and midwives described the exchange of knowledge between the western healthcare providers (midwives and doctors) and the TBAs as very positive and enriching. The TBAs’ knowledge was based on practical training, gained by accompanying experienced TBAs in home deliveries. This contrasts with the western healthcare providers who generally have less practical experience, but a deeper theoretical knowledge when finishing university.

*“When we have medical interns in rural areas, when they come, they don’t know (about the traditional way) because they have never learned about it at the University. So here we have to coordinate the work, to mix the ideas that we have, with theirs. They know everything intellectually, and we know the direct practice.” (TBA 3)*

*“The exchange of knowledge has to be from both sides, not only from the TBAs but also from the staff. They (TBAs) need to know, but also have to indicate what is done, so that there is an enrichment of things. So now the training process has not only been directed at TBAs, it has also been directed at healthcare providers.” (Midwife 1)*

One specific learning example of what midwives learned from the TBAs was their cultural way of assisting the birth in a vertical position since this is not taught during midwives' education.

*"There are patients who do not want to give birth in the lithotomy position, which is the normal birth position. They desire other types of births, kneeling, squatting, standing, whatever. The TBAs have this experience because they have managed these types of births in their communities. So it is also a great contribution to know that we have them by our side." (Midwife 4)*

*"Some want a vertical birth; we have two birth positions here, horizontal and vertical birth. That is what we are attending." (TBA 1)*

Despite this exchange, one midwife was concerned that more work is still needed to strengthen the intercultural health approach.

*"From my point of view, it is not enough. It still requires greater intervention, greater sensitivity from health staff, more training and knowledge of what the other does, so we can support or accompany each other." (Midwife 1)*

### **Integration increased access to healthcare facilities**

One of the main reasons given by both midwives and TBAs for integrating TBAs into health centres was to reduce the barriers for indigenous women to access maternity facilities. Including TBAs in the delivery process made Indigenous women feel more comfortable and trustful in the system due to their knowledge of the culture and the traditional way of giving birth.

*"The TBAs give them confidence because they know about ancestral medicine. /.../ She will provide the trust that perhaps the patient does not have when they arrive." (Midwife 4)*

*"We (TBAs) are very important because the patients pay more attention to us than to the midwives. We are here to help, also with natural medicines and postpartum." (TBA 11)*

Another important element in increasing the women's comfort at the health centers was the possibility to express themselves in their own language, the Kichwa. While midwives only speak Spanish, the TBAs manage both languages and can use it both, as a direct communication with the patient and as a bridge with the midwives.

*"Having them (TBAs) here is a great help, for example in language. They speak Kichwa very well, we (midwives) don't know Kichwa and they help us a lot with interpretation. Because there are patients who are a bit shy and feel embarrassed to speak with us." (Midwife 2)*

*"There are mothers who come from the communities, sometimes they can't converse in Spanish, so we (TBAs) translate, we help them." (TBA 3)*

Furthermore, having TBAs at the health center created a trustful and safe environment among Indigenous women that opened the opportunity to discuss other important topics such as birth control, family planning, and even interpersonal violence.

*"That is where you have the opportunity to work with her (the woman) on issues that perhaps she will never be able to discuss or see in her life, for example, access to contraceptive methods, access to work on preventing violence, which is very common in our communities, access to prevent unwanted or early pregnancies, access to identifying warning signs in a pregnancy, and the whole range of other topics." (Midwife 1)*

*"Benefits for the mothers in the communities, one is that they now (have access to) protect themselves. To not have as many children as before, in the old days they didn't know how to protect themselves, they had 8-10-12 children." (TBA 3)*

### **TBAs in the communities are still needed**

Not all women can, or want to, give birth at the health centers. The two groups of participants agreed on the importance of having well-trained TBAs present in the communities. Distances to the nearest health centers are long, and travel is costly but thanks to the TBAs' knowledge and skills, they felt that they could save lives.

*"Until the doctor arrives, what was going to happen? It's that it's far away. So, it is important, it is necessary. We have saved many people." (TBA 8)*

*"They (TBAs) are already trained and if there is a complication, they immediately refer the patient. In the past /.../ they would stay and die. /.../ They now know that something is not right, that something is happening, and the patient needs to be brought in." (Midwife 3)*

TBAs in the communities can also play an influential role in advising women to reach the health center during pregnancy or delivery if wish, particularly to avoid complications. As one TBA expressed it:

*"Sometimes they hide and don't want to go to the health center for check-ups. So as a TBA, we have to get to them and bring them in for check-ups. Because it's complicated when it's time to give birth, the baby may have anemia or the mother as well." (TBA 9)*

### Committed despite challenges

TBAs mentioned different challenges they encountered in their daily work, both in the community and at the health centers. One of them was related to the referral of patients to the delivery care facilities when necessary. Many Indigenous communities are located far out in the rainforest, without regular public transport, often boats being the only means of transportation, and without phone service, complicating the referral process.

*“Roughly, it’s about 4 hours. Generally, the patient doesn’t come for that same issue, and inside (the jungle), there is more or less no (phone) signal. You practically have to go quite far out to finally catch the signal, so that’s the general difficulty they face, the distance from the communities. /.../ They live in places where there aren’t even any roads.” (Midwife 3)*

*“Sometimes there’s no canoe, sometimes there’s no car or ambulance, and when we call for an ambulance, they don’t provide assistance, which is very complicated. /.../ Sometimes, it’s impossible to cross (the river) in a canoe. /.../ That’s why they don’t want to come.” (TBA 10)*

Some TBAs mentioned that sometimes they must even pay for the mother’s transportation to the health centers since they had no financial resources to do it alone.

*“When the patient doesn’t have the financial means, the TBAs helps transport her with her own resources, supporting the patient.” (TBA 9)*

Another common challenge mentioned by the TBAs, mostly in relation to their work at the health centers, was their own financial situation. Many TBAs struggle to make ends meet with the economic support they receive. All the TBAs were paid once or twice a year implying that they must advance their own money, which sometimes they do not even have. A more structured and regular payment system that allows for increases was therefore demanded.

*“They only give us 300 dollars for the work we (TBAs) do, sometimes we work January, February, it doesn’t pay quickly that same day, but in 6 months. /.../ We want them to pay us monthly, it’s easy as the midwives earn like that. /.../ With what we earn, with that little bit of money, we eat, we buy our uniforms for work, we also buy and make things for ourselves, it’s not enough.” (TBA 6, working in a healthcare center)*

*“Sometimes we earn \$200, sometimes \$100, sometimes just \$30-50 is earned. We don’t have that many patients. It’s not enough, for the fare and so on, to go to training sessions, workshops and the like. We try to do it by ourselves. It’s not*

*sufficient.” (TBA 7, working in the community)*

The TBAs, particularly those attending births at home, also complained about the lack of equipment provided by the MoH. Given their limited financial situation, it was difficult for them to acquire the necessary tools to carry out their work properly.

*“I don’t have flashlights or boots. /.../ Sometimes we lack the money to buy alcohol or gloves. /.../ We need masks, we need something to cover ourselves with when it rains.” (TBA 8)*

Even though the TBAs experienced a lot of challenges, they also expressed a lot of pride in carrying out their mission as well as willingness to sacrifice their personal interests.

*“I feel happy to see that a new being has come into the world, and that mother has been well. I mean, that is the pride for us, as midwives. I really feel that way, to be a midwife, for me that’s it. Even though my child says, ‘Today you won’t have lunch Mom, because you are going to help’, it doesn’t matter, I prefer to see that this baby was born.” (TBA 8)*

## DISCUSSION

This study explored the integration of Indigenous TBAs into the western healthcare system and the challenges faced when carrying out their work in the Amazon region of Ecuador. The research revealed an effective integration of the two healthcare systems, primarily attributed to the strong willingness among both, TBAs and midwives, to learn from and listen to each other. Furthermore, this study showed that it was important to have trained TBAs in the communities to take care of pregnant women, who for different reasons, were not able to attend the healthcare facilities.

The collaboration between the TBAs and western healthcare facilities in this region started with the organization of the existing TBAs in the communities, training them, and integrating some of them into the daily work at the healthcare facilities. An intercultural delivery health center in Otavalo, Ecuador, started similarly by integrating TBAs into the healthcare facilities, where intercultural health workshops and basic Kichwa classes were provided to the healthcare providers [31]. Part of the integration in our study consisted of adapting the delivery rooms to enable the vertical birth position, something that had also been done successfully in the case of Otavalo [21, 31].

Our study revealed initial scepticism among both TBAs and healthcare professionals towards the integration process. This scepticism is not uncommon in scenarios where traditional and western healthcare practices converge [40, 41]. However, the successful overcoming of this scepticism in this case, it could be explained by

the resilience and openness of both groups, underscoring the importance of fostering mutual respect and understanding as foundational for integrating traditional practices into western healthcare systems. Similar findings have been observed in other contexts, suggesting that overcoming scepticism is a critical step towards successful integration [42]. An important contributor to this acceptance probably was the existent legal framework and policies that the MoH had created [26, 31, 33-35] but mainly the leadership of key midwives that facilitated the process and struggled to eliminate mental and physical barriers from the western healthcare system.

The bidirectional learning observed highlights the reciprocal nature of knowledge exchange between TBAs and healthcare professionals. This process goes beyond the mere transfer of skills, encompassing deep insights into cultural practices, beliefs, and values. Such a learning process enriches both traditional and western healthcare practices, contributing to more holistic and culturally sensitive care [43, 44]. This sharing was also considered essential in another intercultural center in Ecuador where an increase in trust towards the western health system among the Indigenous communities, as well as a strengthening of the communication between the two health providers were observed [10]. This emphasis on bidirectional learning also aligns with the WHO's recommendations on integrating traditional medicine into national health systems [45]. Related to this topic, this study has additionally shown the importance of TBAs' regular training to be able to provide the best care for mothers and children. Continuous training of TBAs has been brought up as a crucial factor for good maternal health in many studies from low-middle-income countries [46-48].

One of the most compelling findings of our study was the agreement among participants of the increased access to healthcare facilities that the integration facilitated. By bridging traditional and western healthcare practices, barriers to healthcare access, such as geographical remoteness, cultural mistrust, and linguistic differences, were mitigated. This finding supports the argument that culturally sensitive healthcare models can significantly enhance healthcare access for Indigenous populations [49, 50]. For instance, women's trust towards the TBAs because of their shared culture and community belonging has also been discussed in the literature as a critical component for Indigenous women to attend western health facilities [5, 51, 52].

Despite the progress in integration, our study also highlighted the ongoing need for TBAs within their own communities. TBAs not only provide essential maternal and neonatal care but also play a vital role in maintaining cultural heritage and community cohesion. TBAs are usually the first, and often only, healthcare contact pregnant women have and regular supportive training can help them work adequately [53]. For instance, this first contact was important in a study from Kenya because it made it possible for TBAs to promote the importance

of attending antenatal care in healthcare facilities [53]. Their continued presence at community level emphasizes the need for a complementary, rather than substitutive, relationship between the traditional and western healthcare systems.

The commitment of TBAs and healthcare professionals, despite challenges, spoke to the potential sustainability of integrated healthcare models. Challenges such as resource limitations and cultural misunderstandings were significant but not insurmountable. Interestingly, despite the numerous documents of the MSP of Ecuador supporting TBAs and their integration as part of an intercultural health model [37], no economic incentives have been allocated to them. The current financial support comes from Provincial structures influenced by political interests, leaving therefore the TBAs and the model itself in an extremely vulnerable situation regarding its sustainability.

While this case study offered, according to the participants, an apparently successful integration of two different cosmological models of understanding health and disease, it is also important to contextualize it under the frame of several risks and threats discussed in the literature [7, 8, 11, 12]. One of the main criticisms concerns the potential for cultural insensitivity in the integration process. Critics argue that without a deep understanding and respect for Indigenous cultures, traditions, and practices, attempts to integrate TBAs into western healthcare systems can lead to cultural imperialism, where western practices are privileged over traditional ones. This can erode Indigenous knowledge systems and practices, undermining the autonomy and cultural identity of Indigenous communities. Another critical concern revolves around the effectiveness and safety of traditional birth practices when integrated into the western healthcare system arguing that without clear guidelines and standardized training, there may be confusion about the roles and responsibilities of TBAs within the healthcare system, potentially leading to overlaps or gaps in care. Additionally, concern has been raised that training programs may prioritize western medical knowledge at the expense of traditional practices and wisdom, leading to a dilution of the very expertise that TBAs bring to the healthcare landscape. In addition, integrating TBAs into the western healthcare system requires significant resources, including training, supervision, and support systems, which may divert resources from other healthcare priorities. Finally, there is a concern that this integration could lead to their marginalization rather than empowerment. Critics fear that TBAs may be relegated to a lower status within the healthcare hierarchy, limiting their ability to advocate for culturally appropriate care and potentially undermining their position and respect within their own communities [55-58]. Since some of these threats have already been observed in the so-called successful cases of Ecuador [23, 25, 31, 59], a continuous monitoring and critical reflection, from TBAs and midwives but also health policy-makers, of the intercultural



health model explored in this study is imperative.

### Methodological considerations

One strength of the study was the possibility to gather information from midwives, TBAs working in healthcare facilities, and TBAs working in the communities, to get a broader view of the collaboration, their work, and the challenges faced. The selection of the study area, where a long history of practicing TBAs and intercultural health was in place, contributed to fulfilling the aim of the study. The collaboration with the Sandi Yura association also facilitated easy contact with the participants and a trustful environment, particularly with the TBAs, supporting the feasibility of the research.

This study, however, has several limitations to be considered. One of them was the possible language barrier. Interviews were conducted in Spanish, the first author (and interviewer's) and the Indigenous women's second language, which might have caused the participants to feel limited in expressing themselves. Additionally, it is possible the participants did not feel comfortable being interviewed by a foreign woman, not familiar with the Indigenous culture on the forehand, and therefore limiting their communication. At the same time, this fact together with the friendly environment created by Sandi Yura could have contributed to make them more open to talk. The limited experience of the first author in qualitative methodology could also have influenced the information gathered during the data collection. The study's focus on a specific region of the Ecuadorian Amazon may limit the applicability of its findings to other Indigenous communities or geographical areas with different socio-cultural dynamics, healthcare infrastructures, institutional leadership, and environmental contexts. While the qualitative insights are profound, the unique characteristics of the study region may influence the integration process, outcomes, and challenges encountered.

### Conclusion

In conclusion, the integration of TBAs into the western healthcare system in the Ecuadorian Amazon represents a promising avenue for improving healthcare access and quality for the Indigenous women in this region. While there was an initial scepticism in the process, it was later overcome due to the bidirectional learning environment created, which reinforced mutual respect. While this integrative process contributed to increase the attendance of Indigenous women to western health centers, the need for maintaining the TBAs at the community level was reinforced.

This study contributes to the growing body of literature advocating for the inclusion of traditional indige-

nous practices in western healthcare, calling for a more nuanced, respectful, and integrative approach to health and well-being. It also highlights the importance of cultural sensitivity, mutual recognition, and the value of traditional practices by the health care providers in the formal health system as a prerequisite for its integration. While the existent legal framework was important, the MoPH should provide sufficient resources for its implementation at the provincial level, taking into account the specificities of the different Indigenous groups. Future research should focus on quantitatively assessing health maternal and child health outcomes following this intercultural health integration, on exploring the mechanisms behind the integration as well as on the scalability of such a model to other regions in the country.

## DECLARATIONS

### Publication Consent

Not applicable.

### Competing interests

No potential conflict of interest was reported by the author(s).

### Funding

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### Author contributions

MSS was responsible for the initial conceptualization of the research idea, EH conducted the data collection, data analysis and drafted a first version of the manuscript. MSS and EA provided a critical input during the study design and manuscript preparation to improve the clarity and coherence of the final document. Each author has read and approved the final manuscript.

### Data availability

Data cannot be shared publicly because of the sensitive nature. Data are available from San Francisco de Quito and Umeã University (contact via the correspondent author) for researchers who meet the criteria for access to confidential data.

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## Explorando la integración de las parteras tradicionales indígenas en el sistema sanitario occidental: Un estudio cualitativo de la Amazonia ecuatoriana

### RESUMEN

**Antecedentes:** Las poblaciones indígenas de América Latina se encuentran a menudo en la encrucijada de los sistemas sanitarios tradicionales y occidentales. A pesar de la importancia cultural de la medicina tradicional, su integración en las prácticas sanitarias occidentales sigue siendo un reto. Ecuador ha estado a la vanguardia de la salud intercultural, con el objetivo de fusionar eficazmente estos distintos paradigmas médicos. Este estudio pretendía sistematizar la experiencia de integración de las parteras tradicionales indígenas (PTI) en el sistema sanitario occidental de la región amazónica de Ecuador, identificando los factores favorables y los retos de dicha integración para mejorar el acceso y la calidad de la atención sanitaria de las comunidades indígenas.

**Métodos:** La investigación se basó en un estudio de caso cualitativo y en entrevistas a 15 participantes, entre ellas PTI y comadronas, en la provincia de Orellana (Ecuador). Se utilizó el análisis temático para interpretar los datos, centrándose en las experiencias de los participantes, sus percepciones y la dinámica operativa del proceso de integración.

**Resultados:** El estudio reveló un escepticismo inicial hacia la integración, que se fue superando gradualmente a través de procesos de aprendizaje y adaptación mutuos, destacando la importancia de la sensibilidad cultural y el intercambio bidireccional de conocimientos. La integración parece haber facilitado el acceso a la atención sanitaria, ya que las PTI desempeñan un papel fundamental a la hora de salvar las distancias culturales y lingüísticas, aumentando así la comodidad y la confianza de las mujeres indígenas en los servicios sanitarios. A pesar de estos avances, las PTIP se enfrentaron a importantes retos, como limitaciones financieras y dificultades logísticas, lo que subraya la necesidad de un apoyo continuado y de estrategias de integración sostenibles.

**Conclusiones:** La integración de las PTI en el sistema sanitario occidental de la Amazonia ecuatoriana ha demostrado ser prometedora para mejorar el acceso de las mujeres indígenas a la atención sanitaria mediante el fomento de un entorno de respeto mutuo y sensibilidad cultural. Sin embargo, para garantizar la sostenibilidad y la eficacia de estos modelos sanitarios integradores, es imperativo abordar los retos identificados y apoyar el desarrollo continuo tanto de las PTI como de los profesionales sanitarios. En el futuro, la investigación debería centrarse en evaluar cuantitativamente los resultados sanitarios de esta integración y explorar su escalabilidad a otras regiones.

**Palabras clave:** salud intercultural, parteras tradicionales, integración, indígenas, Ecuador

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