

Cultural Sensitivity in Healthcare Research: *Lessons from Rural Indonesia*

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Abstract

Traditional medicine, particularly in rural Indonesia, plays a crucial role in healthcare, especially for older adults. These remedies, deeply rooted in cultural heritage, offer accessible and affordable alternatives to modern medicine. However, integrating them into formal healthcare systems faces challenges such as quality control, safety, and cultural sensitivity. This study investigates how traditional health practices influence healthcare behaviors and proposes culturally sensitive frameworks to bridge the gap between traditional and modern healthcare. This study employs a literature-based methodology, combining relational design and sensory-dialogical approaches to explore inclusivity and cultural sensitivity in healthcare research. Data from peer-reviewed articles, case studies, and ethnographic reports from 2010 to 2024, focusing on rural Indonesian communities, were analyzed. Thematic analysis identified patterns regarding healthcare preferences, cultural significance, barriers to inclusivity, and ethical challenges in validating traditional remedies. The study highlights the importance of traditional remedies, especially herbal medicine, in maintaining health and cultural identity among older adults. These remedies serve both practical healthcare and cultural purposes. Community-based practices, such as preparing herbal remedies, emphasize their symbolic and therapeutic value. However, challenges like herb-drug interactions, a decline in ethnobotanical knowledge, and the integration of traditional medicine with modern healthcare remain prevalent. Culturally sensitive healthcare research is essential to address disparities in rural and marginalized populations in Indonesia. Approaches like relational design and sensory-dialogical frameworks promote inclusivity and ethical rigor. Integrating traditional medicine requires balancing cultural preservation with scientific validation, fostering equitable healthcare solutions that harmonize with contemporary needs.

Keywords:

Older adults;
traditional medicine;
rural healthcare;
cultural sensitivity;
healthcare research

1. Introduction

Traditional remedies have been integral to healthcare practices across various cultures, particularly among rural populations. In Indonesia, traditional health services known as *Pelayanan Kesehatan Tradisional* (Yankestrad), hold a prominent role in addressing healthcare needs. Approximately 37% of older adults rely on these services, while 17.3% use homemade herbal medicines, with significant uptake in rural areas (Rukmini & Kristiani, 2021). This preference stems from cultural familiarity, accessibility, and affordability. Such remedies, often derived from herbal plants, are perceived as safer and more aligned with local values compared to modern pharmaceuticals, which are frequently regarded as intrusive or incompatible with traditional beliefs (Gözüm & Ünsal, 2004; Skalli & Jordan, 2017). Studies in Aceh reveal that older adults predominantly prepare their own herbal remedies using locally available plants, including *Annona muricata* (soursop) and *Curcuma longa* (turmeric) to treat ailments like hypertension, coughs, and flatulence, achieving health improvements

with minimal adverse effects (Suryawati et al., 2023). Additionally, other traditional remedies such as herbal teas and potions are not only accessible but also resonate with the cultural beliefs of the local population (Rukmini & Kristiani, 2021). Therefore these practices not only contribute to health maintenance but also reinforce cultural identity and autonomy. Similar patterns are echoed in Turkey, where older women frequently use herbal therapies as complementary or alternative treatments to conventional medicine, driven by chronic health conditions and a belief in the natural efficacy of these remedies (Gözüm & Ünsal, 2004). This trend is consistent with findings from other indigenous communities such as the Orang Asli in Malaysia, which demonstrate a comparable reliance on herbal remedies, highlighting the interplay between cultural heritage and healthcare practices (Lokman et al., 2024). These examples demonstrate how cultural heritage is intricately linked with health practices, reflecting deeply rooted traditions and values.

However the integration of traditional practices into healthcare systems poses both ethical and practical challenges. For instance, issues such as the lack of standardized dosages, quality control, and the potential for herb-drug interactions necessitate thorough research and oversight to ensure safety and efficacy (Rasoulia & Kheirandish, 2017; Skalli & Jordan, 2017). Yet, traditional medicine remains an essential component of healthcare in regions with limited access to modern medical facilities, particularly among older adult populations in rural Indonesia, who perceive traditional remedies as a practical and culturally resonant option. This perspective aligns with Dewi & Zaharuddin (2024) study which found that healthcare management systems in regions such as West Manggarai have embraced a hybrid approach, integrating modern and traditional practices to improve healthcare accessibility. By incorporating community-based programs, these systems have created sustainable models that effectively address the healthcare needs of rural populations. Similarly data from the Riskesdas 2018 reveals a substantial reliance on traditional health services among women and rural residents, which can be interpreted as a pragmatic response to socio-economic and infrastructural barriers (Rukmini & Kristiani, 2021). Conversely others may argue that this reliance showed the enduring relevance of traditional knowledge systems and indigenous practices in rural healthcare settings (Balkrishna et al., 2024).

To bridge the gap between traditional and modern healthcare, it is imperative to develop ethical frameworks that validate and integrate cultural practices. Moreover cultural sensitivity necessitates that researchers engage with communities in a manner that respects their values and autonomy. Approaches such as Gjermestad et al. (2023) 'sensory-dialogical' method showed the importance of participatory and co-constructive research models that resonate with the lived experiences of marginalized populations, particularly where traditional top-down research methodologies often fail to capture the nuanced realities of these groups. Similarly, Verhage et al. (2024) advocate for 'relational design' in inclusive research which fosters trust and meaningful engagement. These methodologies ensure that cultural preservation is harmonized with the necessity for evidence-based interventions. This approach not only amplifies the voices of marginalized communities but also enhances the validity and impact of research findings. By incorporating the perspectives of these groups into healthcare research, unique insights into their health-seeking behaviors and challenges can be uncovered. For instance, the preference for traditional remedies among the Acehnese older adults reflects a confluence of cultural values and practical considerations, providing valuable lessons for the design of culturally attuned health interventions (Suryawati et al., 2023). Conversely healthcare systems that struggle to validate these practices within evidence-based frameworks risk further marginalizing indigenous knowledge (Pieroni et al., 2013). Marginalized groups, including the older adults in rural Indonesia, often face systemic barriers to healthcare access and representation in research that acknowledges their cultural practices. This exclusion not only perpetuates health disparities but also risks alienating communities that heavily rely on traditional remedies.

The World Health Organization (WHO) guidelines on traditional medicine further advocate the importance of integrating these practices into public health policies, provided safety and efficacy standards are met (Rajesh et al., 2015; Skalli & Jordan, 2017). In Indonesia, the integration of Yankestrad into community health services reflects this integrative approach, leveraging traditional medicine to enhance healthcare accessibility while preserving cultural relevance (Rukmini & Kristiani, 2021). This model not only validates and preserves cultural heritage but also provides a pragmatic solution to healthcare disparities in rural regions. For instance, Yankestrad supports rural populations

by providing affordable, familiar, and locally sourced treatments, thereby increasing the acceptability of healthcare interventions. This dual acceptance fosters a holistic healthcare environment in which traditional and modern systems can coexist and effectively complement one another (Rukmini & Kristiani, 2021). Consequently this study builds upon these insights by exploring the intersection of cultural beliefs and health-seeking behaviors among older adults in rural Indonesia. By adopting culturally sensitive and ethically rigorous methodologies, the research aims to uncover the role of traditional medicine in maintaining health and cultural identity. Therefore this study showed the transformative potential of culturally inclusive healthcare systems, advocating for a balanced approach that bridges cultural heritage with modern healthcare frameworks. The insights derived from rural Indonesia and other culturally rich contexts showed the transformative potential of culturally sensitive healthcare research, paving the way for more inclusive and equitable health paradigms.

2. Method

This study used a literature-based methodology to investigate cultural sensitivity in healthcare research with a specific focus on older adults in rural Indonesia who favor traditional remedies. The methodological framework integrates principles of relational design and sensory-dialogical approaches as outlined by Verhage et al. (2024) and Gjermestad et al. (2023) respectively. These frameworks were essential in ensuring inclusivity, ethical rigor, and cultural sensitivity while exploring healthcare behaviors and beliefs. The primary data sources included peer-reviewed journal articles, case studies, and ethnographic reports concerning traditional health practices within marginalized populations. The study used strategic keyword searches including terms such as traditional remedies, rural healthcare, cultural sensitivity, and inclusive research; prioritizing studies published in English and Indonesian from 2010 to 2024 to ensure contemporary relevance.

The analytical framework used in this study integrated relational design and sensory-dialogical approaches to assess the cultural and ethical dimensions of the literature. Relational design as discussed by Verhage et al. (2024) prioritized meaningful relationships, enabling the study to navigate the complexities inherent in rural healthcare systems while respecting cultural identities and healthcare preferences. Concurrently the sensory-dialogical approach proposed by Gjermestad et al. (2023) played a prominent role in interpreting non-verbal and contextual expressions of cultural beliefs. This approach which focuses on dialogical meaning-making and sensory engagement ensured that the analysis resonated deeply with the lived experiences of marginalized populations.

Thematic analysis was used to identify patterns in healthcare preferences, ethical challenges, and inclusivity strategies. Guided by Snyder (2024) integrative review principles, the study synthesized findings from various disciplines to develop a holistic narrative that connects cultural practices with healthcare decisions and ethical research practices. Main themes that emerged from the analysis included the cultural importance of herbal remedies, barriers to inclusivity in research, and ethical dilemmas associated with the respect for cultural traditions. This approach offers a nuanced understanding of the interplay between cultural factors and existing healthcare practices.

3. Results and Discussion

Traditional remedies, particularly herbal medicines hold significance that extends beyond their role as health interventions within rural Indonesian communities; as they embody cultural heritage, values, and identity. The preference for herbal medicines such as jamu reflects not only a pragmatic response to limited access to conventional healthcare but also a deep cultural commitment to the preservation of traditional knowledge systems. Dewi & Zaharuddin (2024) study showed the importance of aligning healthcare initiatives with local cultural contexts, demonstrating that context-specific programs integrating preventive care, community participation, and traditional practices can simultaneously foster both improved health outcomes and promote cultural preservation. According to Rukmini & Kristiani (2021) study, 37% of elderly Indonesians used traditional health services with 17.3% relying on self-prepared remedies. These practices are not merely a response to the scarcity of modern healthcare facilities; they also signify a deep-seated belief in the harmony between nature and human health. In rural regions such as Aceh, the use of medicinal plants is seen as both a cost-effective and culturally appropriate solution, reflecting the community's reliance on natural resources for

healthcare (Suryawati et al., 2023). This connection is further highlighted among the Tengger tribe where remedies like soursop leaves and agarwood are used to treat sleep disorders on elderly populations, demonstrating the transmission of ethnomedical knowledge base that has been transmitted through generations, demonstrating the community's faith in the safety and efficacy of traditional medicine (Lahardo et al., 2024). Similarly the initiatives such as *Persatuan Lansia Ingin Hidup Sehat* (PERLAHAT) which educate older adults about medicinal herbs, emphasize the role of these remedies in promoting health and reducing dependence on pharmaceuticals (Wulandari et al., 2020).

Across various community contexts, herbal medicines are widely regarded as natural, safe, and effective. Suryawati et al. (2023) emphasize that older adults in rural Aceh often prepare their own herbal remedies, which aligns with their cultural practices and enduring beliefs regarding the efficacy and safety of these treatments. While in Ruteng, the Manggarai tribe possesses a comprehensive ethnobotanical knowledge base, using forest plants for both therapeutic purposes and health maintenance as part of their cultural tradition (Iswandono et al., 2015). Supporting these practices, a study conducted by Sipollo et al. (2023) found that *polyphenol*-rich jamu significantly reduces cholesterol levels among elderly Indonesians with coronary heart disease, thereby reinforcing its potential role in preventive and therapeutic health strategies.

The remedies in question frequently integrate both spiritual and practical healing dimensions, wherein their preparation and application possess symbolic significance that transcends their medicinal properties. For instance, in the Golo Ketak Village, community members prepare plant-based remedies through methods like boiling, pounding, and smearing, thereby reinforcing their function as instruments of cultural transmission (Hastuti et al., 2022). Similarly in remote regions such as East Nusa Tenggara, medicinal plants often serve as primary healthcare resources as seen in studies on the Manggarai tribe (Jamun et al., 2020). This dual role of traditional remedies—as practical solutions to health challenges and as essential elements of cultural resilience—emphasized their enduring importance within rural healthcare systems. In such communities, the perception of illness and its remedies is deeply rooted in spiritual and communal values, where traditional healers often play pivotal roles in maintaining this balance. For instance, older adults in Munte Village view health as a state of harmony consisting physical, social, and spiritual dimensions (Br Kaban & Achmad, 2021). This perspective not only prioritizes traditional medicine as a healthcare choice but also as a reflection the need for culturally attuned healthcare frameworks that resonate with local worldview and the preservation of indigenous knowledge.

Traditional medicine is often seen as an extension and expression of cultural identity, symbolizing connection to ancestry and nature. In Munte Village, health is perceived as a delicate balance maintained through traditional practices supported by familial and social networks, contrasting sharply with biomedical paradigms that focus solely on physical health (Br Kaban & Achmad, 2021). Similarly in Polewali Mandar, the production and consumption of jamu among the elderly helps preserve cultural continuity and foster economic independence (Kasran & Arfan, 2022). These practices demonstrate how traditional medicine contributes to both personal well-being and cultural identity.

Cultural beliefs often shape interpretations of illness and treatment efficacy. Among the Colol tribe in East Manggarai, the use of *Curcuma domestica* (turmeric) and *Piper betle* (betel leaves) reflects health practices rooted in cultural rituals and intergenerational knowledge. This demonstrates a resistance to biomedical paradigms that often fail to or may not align with local values (Gustina et al., 2022). Similarly the Manggarai tribe in the Ruteng Mountains demonstrate how ethnobotanical knowledge not only sustains forest biodiversity but also integrates healthcare with conservation efforts (Iswandono et al., 2015). The tribe's reliance on forest plants for medicinal purposes reflects a broader ecological and cultural significance. Practices such as crafting herbal mixtures like jamu demonstrates how traditional medicine adapts to modern challenges while retaining its cultural essence (Sumarni et al., 2019). These examples align with Gradellini & Cantarino (2021) study on the duality of 'magic' and science in traditional medicine, where healing practices combine spiritual beliefs and empirical knowledge. Such practices are not merely medicinal but are also spiritual acts that reinforce communal bonds, shared cultural values, and even eco-cultural dimensions, promoting a holistic approach to health.

The prioritization of traditional remedies is also shaped by perceptions of modern pharmaceuticals. In Kupang for instance, synthetic drugs are often mistrusted seen as foreign and disruptive to the body's natural balance. This sentiment mirrors trends in other developing regions,

where herbal medicine is valued as a culturally coherent alternative to biomedical interventions (Matole et al., 2021; Sambara et al., 2016). Such preferences demonstrates an enduring belief in the holistic healing properties of plants. However integrating cultural identity into healthcare decisions poses challenges. Modernization and the decline of traditional knowledge among younger generations threaten the sustainability of these practices. Efforts to document and revitalize ethnobotanical knowledge such as those in Claver (Philippines) and Manggarai (Indonesia) are crucial for preserving cultural heritage and future generations (Demetillo et al., 2019; Iswandono et al., 2015). At the same time, the scientification of traditional remedies as seen in research on jamu, emphasizes the need for systematic documentation and validation. This dual approach—validating traditional practices while adapting them to contemporary healthcare frameworks—ensures their relevance without undermining their cultural importance (Matole et al., 2021). Balancing cultural preservation with modern healthcare demands is essential. Traditional medicine provides immediate, accessible solutions, but its broader integration into healthcare systems requires addressing concerns about efficacy, safety, and quality control. These initiatives demonstrates the importance of maintaining a delicate equilibrium between honoring cultural traditions and meeting the evolving needs of healthcare systems, ensuring that traditional practices remain vital components of both health and cultural identity.

Incorporating cultural sensitivity into healthcare frameworks is essential to addressing the unique needs of rural and marginalized communities. Central to this approach is respecting the autonomy of participants and their cultural beliefs, which serves as a cornerstone of culturally sensitive healthcare. For instance educating older adults about the safe and effective use of herbal therapies as demonstrated in Nurhafni (2024) study, has shown how empowering patients can lead to improved health outcomes while preserving their cultural identity. This aligns with the ethical imperative to honor participant autonomy while ensuring interventions are both respectful and beneficial. While traditional health services such as Yankestrad in Indonesia, demonstrates the potential to complement conventional healthcare systems. According to Rukmini & Kristiani (2021), formalizing traditional medicine within public health services can bridge healthcare access gaps while respecting cultural practices. These initiatives validate traditional medicine's role and make healthcare more inclusive for rural populations. At a policy level, Yankestrad demonstrates how integrating traditional health practices into public healthcare can address the unique challenges faced by culturally diverse communities. However as seen in the scientification of jamu, such integration requires a balanced approach that respects traditional knowledge while adhering to rigorous scientific standards.

Frameworks like the relational design model proposed by Verhage et al. (2024) provide a blueprint for incorporating cultural sensitivity into healthcare research. By emphasizing meaningful engagement with communities, this model ensures research aligns with the lived experiences of participants, building trust and mutual understanding in culturally diverse settings. This approach is particularly effective in addressing the healthcare challenges of marginalized groups, where conventional systems often fall short due to cultural and logistical barriers. Similarly Gjermestad et al. (2023) sensory-dialogical approach demonstrates the importance of participatory methods that respect non-verbal expressions and cultural nuances. This methodology ensures the voices of marginalized populations are heard and valued. In the Karo community for instance, traditional medicine practices are deeply connected to social and familial support systems, making culturally sensitive engagement essential for effective health interventions (Br Kaban & Achmad, 2021). Likewise in East Nusa Tenggara, the Manggarai tribe's use of medicinal plants like turmeric and ginger showed the dual role of these plants as cultural assets and practical healthcare resources. Ethnobotanical studies in the region advocate for policy interventions that support the cultivation of these plants, ensuring their sustainability and inclusion in local health programs (Hastuti et al., 2022).

Cultural sensitivity in healthcare research also involves recognizing the autonomy of individuals to make health decisions grounded in their cultural identities. In rural Indonesia, health-seeking behaviors are deeply tied to cultural practices, with traditional remedies often preferred over conventional medicine (Rukmini & Kristiani, 2021; Sari et al., 2021). Traditional practices documented in regions like Aceh and Manggarai demonstrate that healthcare decisions are profoundly influenced by intergenerational knowledge systems and social norms (Hastuti et al., 2022; Iswandono et al., 2015). However a main ethical challenge lies in balancing scientific inquiry with the preservation of cultural identity. The sensory-dialogical approach proposed by Gjermestad et al. (2023) provides a pathway to

engage meaningfully with participants by integrating sensory and dialogical elements into research methodologies. This participatory approach allows researchers to respect and incorporate non-verbal cultural expressions, fostering inclusivity and authenticity. Concurrently the relational design model discussed by Verhage et al. (2024) advocates for collaborative engagement with communities. By fostering mutual respect and co-creating knowledge, this approach helps mitigate the risk of imposing external frameworks that may inadvertently undermine local traditions. Such methodologies are particularly relevant in contexts where traditional health practices are stigmatized or undervalued by modern healthcare systems.

Integrating traditional remedies into broader healthcare frameworks is an essential step toward achieving culturally sensitive and inclusive healthcare. Remedies such as herbal treatments, widely preferred by the elderly in rural Indonesia, are deeply rooted with cultural identity while offering practical and accessible solutions to health challenges (Lahardo et al., 2024; Rukmini & Kristiani, 2021). This integration not only enhances healthcare access for rural populations but also validates the legitimacy of traditional practices within modern medical systems. Studies such as Sipollo et al. (2023), which found that jamu effectively lowers cholesterol levels, emphasized the potential of traditional remedies as complementary therapies. This trend aligns with global observations, such as those by Karaman et al. (2019) and Gözümlü & Ünsal (2004) in Turkey, where older adults frequently rely on herbal supplements for managing chronic conditions, emphasizing the universal relevance of culturally sensitive healthcare.

However, integrating traditional remedies presents significant challenges, particularly in bridging the gap between cultural and biomedical approaches. While traditional medicine emphasizes holistic well-being and aligns with local beliefs, biomedical systems often prioritize standardized treatments and evidence-based protocols. This dichotomy can lead to tensions, particularly given the risks of herb-drug interactions and inconsistencies in herbal product quality (Rasoulzadeh & Kheirandish, 2017; Skalli & Jordan, 2017). To address these challenges, a dual approach is essential: *first*, validating traditional practices through scientific research, and *second*, adapting biomedical protocols to respect cultural variations. For instance, the ethnomedicine study by Lahardo et al. (2024) documented the use of medicinal plants by the Tengger tribe for sleep disorders, offering insights for integrating these remedies into clinical care. Similarly, Nurhafni (2024) study demonstrated the role of education in promoting the safe use of herbal therapies, showing how traditional knowledge can be harmonized with biomedical standards. Global organizations such as the World Health Organization (WHO) advocate for incorporating traditional medicine into healthcare systems, provided safety and efficacy standards are met. This endorsement offers a framework for countries like Indonesia to develop inclusive policies (Gradellini & Cantarino, 2021). However, the success of such integration hinges on rigorous quality control measures and efforts to address potential adverse effects.

Integrating traditional remedies into healthcare systems also involves navigating ethical challenges. Researchers and policymakers must address issues such as intellectual property rights, the risk of cultural appropriation, and the equitable sharing of benefits derived from traditional knowledge. Additionally, the sustainability of traditional practices must be prioritized, as increased demand for medicinal plants can threaten biodiversity (Lahardo et al., 2024). Therefore, educational initiatives play a pivotal role in balancing these challenges. Nurhafni (2024) study demonstrated how educating elderly populations about the proper use of herbal therapies enhances health outcomes while fostering a greater appreciation for cultural heritage. Any programs like these can serve as models for integrating traditional knowledge into contemporary healthcare systems without compromising ethical integrity. Inclusivity in healthcare research is another crucial consideration. By incorporating traditional health practices into research frameworks, scholars can uncover valuable insights into community health behaviors and preferences. For instance, community health education initiatives such as those documented by Sari et al. (2021), demonstrate how promoting the use of herbal plants can enhance health literacy and self-management among older adults. These efforts not only validate traditional remedies but also ensure that healthcare systems remain adaptable and culturally relevant.

Future research should prioritize community-based participatory approaches that empower local populations and ensure the ethical use of traditional knowledge. Through the proposed Verhage et al. (2024) relational design framework, which fosters mutual respect and collaboration between researchers and communities, can lay the foundation for sustainable and culturally sensitive healthcare systems.

Similarly the proposed inclusive research methodologies by Gjermestad et al. (2023) like the sensory-dialogical approach, which respects non-verbal expressions and cultural nuances, will ensure marginalized groups are not only participants but also contributors to the research process, fostering a sense of ownership and empowerment. These approaches are particularly relevant in ethnomedicine studies, where community involvement is critical for preserving and validating traditional practices (Lahardo et al., 2024). In regions such as Kupang, educational programs focused on the use of endemic plants in traditional healing rituals have demonstrated the effectiveness of training communities to use medicinal plants responsibly (Jamun et al., 2020; Sambara et al., 2016). Such programs also emphasize the need for sustainable practices to preserve these resources for future generations.

The findings of these initiatives have significant implications for healthcare policy and practice. Policymakers must prioritize the inclusion of traditional medicine in national healthcare strategies, recognizing its role in addressing health inequities in rural and marginalized communities. This involves allocating resources for documenting and preserving traditional knowledge while supporting local practitioners through training and certification programs. Global frameworks such as the WHO's endorsement of traditional medicine, offer valuable guidelines for integrating these practices into public healthcare systems. However to ensure success such integration must be supported by robust quality control measures and scientific validation efforts. Balancing the preservation of cultural heritage with the demands of modern healthcare systems is essential for creating inclusive and effective health strategies that honor both tradition and innovation. By adopting culturally sensitive approaches, healthcare systems can bridge the gap between traditional and biomedical practices, ensuring that all communities have access to equitable and responsive healthcare solutions.

4. Conclusion

The exploration of cultural sensitivity within healthcare research, particularly in rural Indonesia, demonstrates the importance of integrating traditional remedies into modern healthcare systems. Practices such as herbal medicine serve not only as essential for health interventions but also as cultural cornerstones that reflect the values, heritage, and identity of local communities. This dual role showed the necessity for healthcare frameworks that are both culturally attuned and capable of addressing the specific needs of marginalized populations. The findings demonstrate that rural communities, particularly older adults rely heavily on traditional remedies due to their accessibility, cultural alignment, and perceived safety. However challenges such as the lack of standardized dosages, potential herb-drug interactions, and the erosion of traditional knowledge among younger generations necessitate scientific validation and ethical integration of these practices into modern healthcare systems.

Inclusive research methodologies such as sensory-dialogical and relational design approaches provide effective frameworks for bridging cultural practices with evidence-based healthcare. These approaches empower local populations, enhance health outcomes, and foster mutual respect between researchers and communities. At the policy level, the integration of traditional medicine into healthcare systems offers a pathway to addressing healthcare disparities in rural Indonesia. However this integration must be accompanied by rigorous quality control, equitable benefit-sharing, and measures to preserve biodiversity. By adopting community-based participatory methods and aligning traditional practices with biomedical protocols, healthcare systems can achieve a balanced approach that honors cultural identity while ensuring safety and efficacy. Consequently the transformative potential of culturally sensitive healthcare research lies in its ability to harmonize traditional and modern healthcare paradigms. This balance not only improves healthcare access and equity for rural populations but also validates and sustains the cultural heritage embedded in traditional practices. Future initiatives should prioritize community engagement, ethical rigor, and sustainability to ensure that traditional remedies remain vital components of inclusive healthcare systems.

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