

Ethno-Archaeological Study Of Traditional Medicine At Kodiabe, Ghana.

Bismark Asamoah¹, Benjamin Warinsie Kankpeyeng² Daniel Kumah³

1,2,3 Department of Archaeology and Heritage Studies, University of Ghana, Legon

Corresponding Author: bisasamoah14@gmail.com

Abstract

Research on traditional medicine in Ghana and Kodiabe is limited, hindering evidence-based medicine development and treatment options. The overemphasis on mysticism and religion in healthcare undermines efficacy and reliability and has significant impacts on healthcare delivery in Ghana. This study explored the traditional healing practices of Kodiabe, Ghana, delving into the community's utilization of indigenous knowledge and medicinal plants. Through ethnographic fieldwork, including participant observation and interviews, we examined the cultural and environmental context of healing rituals, which play a central role in the lives of the Kodiabe people. The study also analyzed plant-based remedies to assess their medicinal properties, aiming to validate the efficacy of the local practices. The study highlights the importance of indigenous knowledge in health and cultural preservation and recommends a comprehensive approach to traditional and modern healthcare systems that contributes to the understanding of indigenous medical systems, offering insights for biomedical research and global health.

Keywords: traditional medicine, indigenous knowledge, healing rituals, traditional healing practices, Ghana, mysticism and religion.

Introduction

Traditional medicine is a comprehensive approach to detecting, preventing, and correcting physical, mental, or social imbalances (Hoffmann 2003). It is based on practical experiences and observations passed down through generations and is increasingly recognized as an alternative care method by the World Health Organization (WHO). Traditional medicine and healing (TMH) are integral components of indigenous knowledge systems, providing healthcare services to a broader population, especially in rural communities in developing countries (Kwame, 2021). Access to indigenous social knowledge is essential for maintaining physical, psychological, and social well-being (Marques, Freeman, Carter & Pedersen Zari, 2021). Indigenous ethnic groups have developed specialized expertise, management strategies, and conservation practices through the widespread use of traditional medicine. Traditional diagnoses, treatment discovery, and patient advice are all part of indigenous medical knowledge. Traditional healers often offer valuable expertise for medicine creation, and plants are crucial for pharmacological research and drug development (Kwame, 2016). Kodiabe, a community in the Shai-Osudoku District, has a rich cultural legacy, with traditional festivals and social structures fostering community bonds. The community's economy is primarily agrarian, with agriculture playing a pivotal role.

The lack of research on the chemical composition of traditional medical substances in Ghana is a significant issue in traditional medicine. This lack of comprehensive research hinders the development of evidence-based medicine and limits the potential for new treatment options (Gyasi, Mensah, Osei-Wusu Adjei, & Agyemang, 2011). Additionally, there is a lack of documentation on material culture related to traditional medicine, making preserving and safeguarding practices challenging (Sarfo-Mensah & Oduro, 2007). This dearth hampers academic study and research on traditional medicine, limiting our understanding of its evolution and the identification and preservation of this valuable heritage. In Kodiabe, the lack of research on traditional medicine is a significant issue, as it plays a crucial role in community healthcare practices. The overemphasis on mysticism and religion in medical practice has significant impacts on healthcare delivery in Ghana. This shift in perspective undermines the efficacy and reliability of healthcare interventions, leading to a lack of trust and confidence in Western medicine and hampering the adoption of evidence-based practices.

Generally, this study examined how healing practices influence and are impacted by Ghanaian healers' living situations and the medications they use to treat others to understand their role and practice better.

Specifically, the study sought to identify the traditional medical systems associated with traditional healthcare in Kodiabe, discuss how the practices of traditional medicine and healing are carried out in the community, describe the material culture that surrounds traditional healthcare in Kodiabe, identify the chemical composition of the various medicinal as to know which chemicals aid people to treat their disease.

Methodology

The study employed a multifaceted approach, integrating qualitative research methods with laboratory analyses, to investigate the practice of traditional medicine in the community of Ghana. The research design emphasized an in-depth exploration of traditional medicinal knowledge, combining ethnographic archaeology with archaeological techniques to understand the links between material culture and medicinal practices. Data were collected through ethnographic fieldwork, in-depth interviews, and participant observation. Purposive sampling was used to recruit herbal medicinal practitioners and through referrals, we were able to reach out to other potential participants who were willing to take part in the study. Laboratory procedures involved sample collection and analysis of medicinal plants and other materials used in traditional remedies, using chemical analyses including UV-Vis spectroscopy, to assess their composition and therapeutic effects. Data was analyzed using the thematic analysis approach. Thematic analysis was used to identify recurring themes related to the use, perception, and sociocultural importance of traditional medicine. This analysis technique explored the personal experiences and cultural narratives associated with health and healing practices.

Findings

1. Identifying Traditional Medical Systems

The study explores the traditional medical systems, focusing on their rich diversity and the use of medicinal plants for treating ailments. The locals had a deep knowledge of these plants and passed it down through generations, making them an essential part of their healthcare practices. Traditional healers were highly respected for their knowledge and expertise, especially in cases where patients believed spiritual forces were the cause of their ailments. The community heavily relied on traditional medicine, derived from plant materials like leaves, roots, stems, and flowers, and spiritual healing techniques like prayer, meditation, and rituals. Bone-setting, a prominent traditional healing practice, involves specialist healers using nature to set broken bones and joints.

2. Traditional Medicine Practices

The ethnographic study explored traditional medicine and healing practices in the community, revealing the interconnectedness between healthcare and culture. They used clay, stone, and herbs, with leaves, roots, bark, and seeds as common substances. Plant identification and harvesting knowledge was passed down through generations, and geographical factors influenced plant availability. Traditional methods remain significant alongside modern technologies and scientific approaches.

3. Describing Material Culture Associated with Traditional Medicine

Traditional medicine in Kodiabe relied on material cultures, such as tools and equipment, for healing. These tools, passed down through generations, were effective in preparing remedies. Rituals and beliefs, like music, dance, and storytelling, also played a crucial role in traditional medicine, though some may have been lost or modified.

- Tools and Equipment

The findings revealed that mortars, pestles, pots, and grinding stones are tools and equipments used by the people in the community. Tools and equipment as material cultures are crucial for understanding human societies throughout history. Mortars, pestles, pots, and grinding stones are significant material cultures endured in archaeological records, providing insights into past civilizations' technological

advancements, economic activities, and sociocultural practices. Mortars and pestles were essential tools in the Kodiabe community, representing traditional craftsmanship and knowledge passed down through generations. Pots served multiple purposes, such as boiling remedies, extracting nutrients, and reducing liquid. Grinding stones, also known as metates, play a crucial role in Kodiabe medicine preparation, grinding ingredients into a fine or coarse powder. However, due to wear and tear, their preservation is rare, necessitating replacement or electronic grinding machines. The materials used varied based on resource availability and evolved due to technological advancements and cultural exchange.

- Rituals and Beliefs

The "Klama" song, a sacred song from the Ga-Dangbe community, is believed to have mystical powers and cure specific illnesses. It is performed by trained individuals with deep knowledge of the rhythms, tones, and gestures accompanying the melody. The song's healing power is attributed to its material legacies, which include symbolic artefacts and objects. During performances, healers use spiritually-charged instruments like drums or flutes to enhance the experience and channel healing energy.

Dancing is a vital part of traditional healing practices in Kodiabe, serving as a powerful tool for spiritual and physical transformation. Various dance forms are used to purify the body, invoke the spirits, and meditate. Dance is a conduit for accessing higher powers, enabling individuals to connect with their ancestors and the divine. As a form of meditation, dance allows individuals to enter a state of deep focus and concentration, releasing stress, anxiety, and negative emotions, resulting in tranquility and clarity.

Storytelling is a vital tool in Kodiabe culture, preserving knowledge and experiences from one generation to the next. Elders share stories that connect the present generation with their ancestors, fostering a sense of identity and preserving valuable traditions. By revitalizing this ancient tradition, future generations can continue to benefit from this invaluable knowledge and maintain a strong cultural heritage.

Analyzing Disease, Medicine Efficacy, and Scientific Rationale of some selected medicinal samples

LOCAL NAME	COMMON NAME	SCIENTIFIC NAME	TREATMENT
<i>Haatso / Kantu</i>	Prickly ash tree	<i>Zanthoxylum leprieurii</i>	Swollen Body
<i>Ayetso / Nkuto Dua</i>	Shea Butter Tree	<i>Vitellaria Paradoxa</i>	Hernia
<i>Gugumpo-Etse / Odiaba</i>	Okoubaka Seed	<i>Okoubaka Aubrevillei</i>	Convulsion
<i>Peteplesi</i>	Baobab Fruit	<i>Adansonia Digitata</i>	Boils
<i>Nyame Dua</i>	Cheesewood	<i>Alstonia Boonei</i>	Measles
<i>Mahogany</i>	Mahogany	<i>Swietenia Mahagon</i>	Hernia

Table 1: The local, common and scientific names of herbs and the potential illnesses they treat at Kodiabe

Sample 1: The Use Of "Haatso/Kantu" (*Zanthoxylum leprieurii*) For the Treatment of Swollen Body

The study revealed that "Haatso/Kantu", or Prickly ash tree was used to treat swollen bodies, a condition characterized by fluid accumulation. The perceived effectiveness of this treatment is mixed, with some experiencing relief and others not. Cultural beliefs and psychological factors also influenced the effectiveness. Interviews with community members show positive outcomes, but limitations include a lack of scientific evidence, standardized dosages, and quality control. *Zanthoxylum leprieurii*, a natural remedy for edema, holds promise for its anti-inflammatory, diuretic, antioxidant, lymphatic support, and circulation-promoting properties.

Sample 2: Ayetso/Nkuto dua (*Vitellaria paradoxa*) for the treatment of hernia in Kodiabe

The community uses traditional medicine, specifically "Ayetso/Nkuto dua" or Shea Butter Tree, for treating hernias. The herb's effectiveness is assessed through personal experiences and beliefs, with positive results including reduced pain, decreased swelling, and even complete hernia disappearance. The people trust traditional practitioners and their remedies, viewing them as integral to their cultural heritage. Traditional healers emphasize using natural ingredients and passing down healing practices, instilling confidence in the local community. *Vitellaria paradoxa*, with its diverse bioactive components (include triterpenes, flavonoids, tannins, phytosterols, and fatty acids), shows promise as a potential complementary or alternative treatment for hernias. The plant represents a promising avenue for developing natural remedies to augment existing treatments for hernias and related conditions.

Sample 3: The use of "Gugumpo-etse/Odiaba" (Okoubaka aubrevillei) for the treatment of convulsion in Kodiaba

The community uses traditional remedies like "Gugumpo-etse/Odiaba" (*Okoubaka aubrevillei*) to treat convulsions. Despite modern medical advances, cultural beliefs and accessibility have led many to use these remedies. The perceived effectiveness of "Gugumpo-etse/Odiaba" is rooted in holistic healing, addressing physical, psychological, and spiritual aspects. The community's trust in traditional healers and personal experiences has sustained its use, with positive outcomes indicating its effectiveness. The bioactive components in *Okoubaka aubrevillei*, such as alkaloids, flavonoids, tannins, terpenoids, and saponins, can potentially treat convulsions. However, preliminary evidence suggests that *Okoubaka aubrevillei* could be a valuable source for developing novel therapeutic interventions for convulsions.

Sample 4: The Use Of "Petepplebi" (Adansonia digitata) For the Treatment of Boils in Kodiabe

In Kodiabe, the traditional remedy "Petepplebi" (*Adansonia digitata*), commonly known as the Baobab Fruit, treats boils, offering potential relief from painful and infectious skin abscesses. The plant is believed to have spiritual connections and healing properties. The Kodiabe community's tight-knit community fosters trust and reliance on traditional medicine, making Petepplebi a significant part of their culture. The remedy is accessible, cost-effective, and non-invasive, contributing to the preservation of cultural heritage. Users reported reduced pain, inflammation, and faster healing after using Petepplebi. The study explores the perceived effectiveness of Petepplebi and its cultural and social context. The plant *Adansonia digitata* has diverse bioactive components, including polyphenols, flavonoids, tannins, essential fatty acids, and vitamins, which show promise as a complementary or alternative treatment for boils. As revealed through UV-Vis spectroscopy, its bioactive components contribute to understanding how these compounds interact with electromagnetic radiation and the human body.

Sample 5: The Use Of "Nyame Dua" (Alstonia boonei) For the Treatment of Measles in Kodiabe

The traditional remedy "Nyame Dua", also known as *Alstonia boonei*, is believed to provide protection and healing for measles. This belief is deeply rooted in Shai culture, where the tree symbolizes unity, spirituality, and protection. Placing "Nyame Dua" near an afflicted individual is believed to harness divine power to eradicate the measles virus. The study explores the cultural context of this belief and its role in influencing health-seeking behaviors. Although "Nyame Dua" is perceived as effective, it lacks scientific substantiation, necessitating culturally sensitive interventions that promote evidence-based approaches alongside traditional practices. *Alstonia boonei*, with its diverse bioactive components (alkaloids, flavonoids, tannins, terpenoids, and saponins), shows promise as a potential alternative or complementary treatment option for measles and other viral infections.

CONCLUSION

The study throws attention on the importance of indigenous knowledge and medicinal practices in the community. The study's findings highlight the importance of cultural and environmental context in influencing healing rituals and the use of plant-derived treatments. In addition, it emphasizes the restrictions imposed by an overemphasis on mysticism and religion in healthcare, which impedes the development of evidence-based medicine and therapeutic alternatives. The study calls for a comprehensive strategy that combines traditional healing techniques with modern healthcare systems, emphasizing the value of indigenous knowledge in both health and cultural preservation. By bridging the gap between traditional and biomedical research, this technique can help to gain a more

comprehensive understanding of healthcare systems, providing vital insights for global health efforts and the growth of evidence-based medicine.

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