

Viewpoint

Ubuntu ethics and moral problems in traditional bone-healing

Cornelius Ewuoso¹ , Ademola Kazeem Fayemi², Kiarash Aramesh³

¹ Department of Medicine, University of Cape Town, Cape Town, South Africa, ² Department of Philosophy, University of Lagos, Akoka, Lagos, ³ The James F. Drane Bioethics Institute, Edinboro University of Pennsylvania, Edinboro, United States

Keywords: identity and solidarity, ubuntu ethic, traditional bone-healing, pseudo-medicine, orthodox orthopaedic therapy

<https://doi.org/10.29392/001c.21958>

Journal of Global Health Reports

Vol. 5, 2021

Traditional bone-healing (TBH) remains a widespread practice for various orthopaedics anomalies in many African countries. Despite the patronage frequency of TBH by patients with orthopaedic crises, the ethical issues involved in TBH are yet to gain scholarly attention. In this article, the moral issues in TBH are exposed with critical inquisition on what an *Ubuntu* ethic would prescribe for addressing some of the moral problems in alternative orthopaedic practices. To the extent that parts of TBH might be a useful first aid practice in lieu of orthodox orthopaedic infrastructure, this article finds as morally questionable, delayed referrals by traditional bone-healers resulting in late diagnosis of osteosarcoma and preventable loss of limbs, and sometimes death. Also identified are the pseudoscientific aspects of TBH and a disregard for conflict of interests in the supernatural-profanal bone-healing process. This article appeals to *Ubuntu* relational ethic in prescribing solutions to some moral problems involved in TBH. The article concludes that the value for communal relationship in *Ubuntu* ethic is an attractive framework that can ground orthopaedic care that is respectful of conflicts of interests, and individual's personhood without an attenuation of the common public orthopaedic health good in Africa and beyond.

Ubuntu philosophy is a dominant ethical thinking in the sub-Saharan intellectual tradition. It is complex, and it has been applied to an array of different contexts, from politics, conflict management, education, law, international diplomacy to ethics. At the normative level, *Ubuntu* ethics prescribes individuals to identify and exhibit solidarity with one another, by promoting the behaviours that are more likely to improve the quality of life of others. A fundamental concern in this philosophy is how it bears in the (bio)medical contexts, issues, and practices. However, the prime concern of this study is the under-explored, but fundamental practice of bone-healing in traditional African healthcare. The article employs the word 'traditional' in the phrase 'traditional bone-healing' not in an evaluative sense, but in a purely descriptive sense to depict some earlier forms of informal orthopaedic thinking and care practices in Africa before the conventional option formally grounded in science and genomics.

Traditional bone-healing (TBH) remains a widespread practice for various orthopaedic anomalies, including bone fracture and cancer, in many African countries today. A traditional bone healer is a care provider who incorporates manual techniques, animal and/or plant-based medicines, as well as spiritual therapies to deal with different forms of orthopaedic ailments. These range from fractures (which also includes pathologic fractures), to cancer, involving bones, the spine, muscles, or ligaments. Traditional bone setting (TBS) is the most popular form of care by traditional bone healers. Interestingly, the TBH services are frequently

utilized by individuals from all social strata, ages, educational qualification and religious beliefs in Africa.¹

Given the high use of TBH services, there are now recommendations that TBH should be integrated into the healthcare system.² To date, published studies on TBH have largely focused on the prevalence of TBH; its use, its complications; the reasons for using TBH; and ways of integrating TBH with the contemporary orthopaedic system.^{3,4} Studies that applied ethical principles to the pseudo-scientific aspect of this practice are largely missing. Ethics must be central in the integration of this practice into the healthcare system, as well as ensuring that the public receives respectful and beneficial care. This paper attempts to fill this gap by appealing to *Ubuntu* philosophy to develop a home-groomed ethical framework for TBH practices, while also addressing some of the moral problems in its services and use.

This paper is organized in four sections, beginning with an analysis of *Ubuntu* ethics and its principles in biomedical context. The second section provides an overview of TBH, its presuppositions, and exposes some fundamental general moral problems involved in TBH practices. In this section, the possible harms of TBH are discussed through the lens of *Ubuntu*. This article shall point out that third-person's advice, and sometimes superstitious beliefs are among the principal reasons for its high patronage. However, the patronage of TBH is also a major cause of many cases of delayed diagnosis of osteosarcoma and preventable loss of limbs, and sometimes death in African societies. To the ex-

tent that parts of TBH might be a useful first aid practice in the absence of conventional orthopaedic medicine and infrastructure, this article finds as morally questionable, how traditional bone-healers cross the line by delaying referrals and using pseudo-scientific practices with little (or no) benefits to patients.

In the third section, normative values embedded in *Ubuntu* ethics are explored and applied to prescribe solutions to the moral problems involved in TBH, especially, its pseudoscientific aspects and disregard for conflict of interests in the supernatural-profane bone-healing process. It contends that *Ubuntu* ethics has some valuable insights on: (1) providing framework regarding the scope of duties of traditional bone-healers in an integrative context with orthodox orthopaedics; (2) conscientizing individuals about the moral duty to avoid prolonged use of pseudo-medicine; (3) regulating TBH in ways that secure harmonious relationship and therapeutic good between the patients, the traditional healers and family caregivers. In the last section, the article concludes that the value for communal relationship in *Ubuntu* ethic is a *prima facie* attractive framework that can usefully ground orthopaedic care respectful of conflicts of interests, and individual's personhood without an attenuation of the common public health good in Africa and beyond.

UBUNTU AND BIOMEDICAL ISSUES

Ubuntu is an African philosophy. According to Metz,⁵ "A philosophy counts as African if it is informed and defended by beliefs that are common among peoples in sub-Saharan Africa, and particularly beliefs that are common there than among western societies." *Ubuntu* philosophy is grounded in the values, practices, and beliefs that are dominant in sub-Saharan Africa. These beliefs and practices are not necessarily unique to Africa, but they do play very important roles – in a way that is found nowhere else – in decision-making, and understanding the attitudes to existential situations. As a philosophy reflecting the African cultural experiences, *Ubuntu* is an ideal that urges "anybody's humanity/humanness is validated by his recognition and treatment of other human beings."⁶

Broadly, "*Ubuntu* ethics is defined as a set of values central among which are reciprocity, common good, peaceful relations, emphasis on human dignity, and the value of human life as well as consensus, tolerance, and mutual respect."⁷ *Ubuntu* is not just a single moral value, but a fusion of normative ideas that largely inform beliefs, attitudes, and practices in the Sub-Saharan Africa. Such moral values include prizing communal relationships, harmony, hospitality, social cohesion, friendliness, compassion and interdependence. These beliefs, ideas and practices are at the core of what it means to be human or a person and are best expressed by the maxim, *umuntu ngumuntu ngabantu*. "I am because we are"; or "a person is a person through other persons."⁸

The maxim has both descriptive and prescriptive values. On one hand, the maxim describes how to be a person, and on the other, it prescribes how to behave towards other per-

sons. Being a person (or a human being) comprises of relating with others in certain ways. Specifically, one is more or less of a person or a human being to the extent that the individual prizes other-regarding behaviors in two ways.⁹ First, through identifying with others which entails cognitively, emotionally and behaviourally sharing a way of life with others because this is who we are (motivation); and second, through exhibiting solidarity which involves empathic awareness of others' conditions, helping others for altruistic sake, acting in ways that are likely to be of good to others, caring for their condition or improving their quality of life.

To this end, Koenane and Olatunji are right to describe *Ubuntu* philosophy as a narrative of becoming. In their words:

Ubuntu is not about the "narrative of return", but constitutes a still-viable way of life in which an individual learns to be human and live responsibly and harmoniously with others....A more plausible, satisfactory description of *Ubuntu* is a "narrative of becoming human", a narrative of seeking the truth, seen in the Truth and Reconciliation Commission, which was underpinned by *Ubuntu* epistemology.¹⁰

Koenane and Olatunji seem to be echoing Desmond Tutu's¹¹ thoughts who remarked: "You know when *Ubuntu* is there, and it is obvious when it is absent. It has to do with what it means to be truly human, to know that you are bound up with others in the bundle of life." A person with *Ubuntu* is affirming of, as well as available to, others. To this end, *Ubuntu* philosophy is an inherently relational philosophy that thrives on being human/person. In light of this, actions are right to the extent that they are other-regarding. The antithesis of *Ubuntu* is *into*, literally a thing without humanness. *Into* results from distancing oneself from the communal relationships. It also results when one thinks of himself/herself as an "I" rather than as a "we", refuses to interact with others or engages in behaviours that undermine communal harmony.

While *Ubuntu* ethics has been criticized "because of over-emphasizing the role of the community at the expense of the individual and practical reason, which are equally important in the African traditional societies,"¹² it is instructive to note that despite such criticism, *Ubuntu* ethic has been applied to some biomedical issues. Sambala, Cooper and Manderson¹³ proposed "an ethical decision-making framework based on the philosophy of *Ubuntu* and argued that in sub-Saharan African settings, this approach provides attractive alternative conventions of moral decision-making." They employed *Ubuntu* in addressing the tension between individual rights and public health arising in state's decision making in a pandemic. They illustrated how *Ubuntu* ethic could be applied to tackle conflicting ethical problems in public health crisis such as Ebola and pandemic and tuberculosis. In the context of decision-making and information disclosure in HIV/AIDS where couples are involved, Ewuoso¹⁴ applied *Ubuntu* ethics to address "the conflict between patient confidentiality and partner notification in sero-discordant relationships." Moving beyond the primacy of doctor-patient confidentiality in cur-

rent guidelines, which tend to favour patient confidentiality over partner notification, Ewuoso¹⁴ argues that insights from the notion of friendliness in *Ubuntu* show that it “will do a better job than current ethical frameworks at ensuring that partner notification receives more emphasis in the care of sero-discordant couples.”

Ubuntu philosophy has also been applied in the context of ethical and social issues in genomics. The issue of community engagement as an important aspect of clinical research was addressed by Moodley and Beyer,¹⁵ in the context of genomic biobanking. They developed a model grounded on *Ubuntu* to promote effective and ethically sound community engagement in genomic biobanking research in Africa. Given that understanding consent detail is challenging in biobanking owing to the scientific complexity, Moodley and Beyer¹⁵ argued for a nuanced application of *Ubuntu* to community engagement process in genomic biobanking as a way of enhancing and complementing the consent process. Unlike Moodley and Beyer's¹⁵ research on genomic biobanking, Ewuoso,¹⁶ in another study explored the relevance of *Ubuntu* ethics to incidental findings in genomics. He argues that a “set of norms rooted in the African philosophy of *Ubuntu* can usefully supplement current research guidelines for dealing with incidental findings discovered in genomic research.”

Leonard Chuwa⁶ interprets the culture of *Ubuntu* to explain the contribution of a representative indigenous African ethics to global bioethics. “According to *Ubuntu* philosophy, care is not only an ethic; it is the *conditio sine qua non* for the possibility of genuine ethics.... *Ubuntu* philosophy is about care for humans and the universe. *Ubuntu* recognizes the tension between individual and universal rights” while taking care as the core of ethics. “All principles of ethics are derived from, and aim at care.”⁶ All the set of values that *Ubuntu* espouses, including solidarity, friendliness and the common good, are care-inspired. Thinking along this line, Havenga, Temane, Ramukumba, and Nolte¹⁷ applied *Ubuntu* ethics to the practice of nursing. In decolonizing the overwhelming influence of western biomedical ethical principles on nursing and healthcare in South Africa, they argued for the incorporation of indigenous knowledge systems and ethical values of *Ubuntu* in “the nursing profession to promote new ways of caring for healthcare users in South Africa” and beyond.¹⁷

Some research on *Ubuntu* have explored the link between this philosophy and public health policy such as healthcare resource allocation. Cynthia Madaka¹⁸ discussed the “role that *Ubuntu* ethics can play in redressing the resource allocation disparities between public and private health care sectors in South Africa.” She pointed out that *Ubuntu* ethics is appropriate for formulating public health policy that is morally tenable; hence, her call for an integration of *Ubuntu* ethics into health policies such as the National Health Insurance (NHI). Another public health issue that *Ubuntu* relational ethical ideas have been applied to is the act of skin bleaching and the marketing of skin bleaching cosmetics in sub-Saharan Africa. Using prescriptive principles deriving from identity, solidarity, and harmony in Afro-communal ethic of *Ubuntu*, Ademola Fayemi¹⁹ evaluated the act of

skin bleaching, which is raising several bioethical concerns. According to him, “skin bleaching is morally wrong to the extent that it promotes disharmonious relations and false identity in the beauty industry in Africa.”

Following the above discussion on how *Ubuntu* ethic has been applied by different scholars to varying biomedical issues, this paper is providing a novel and nuanced application of *Ubuntu* ethic to traditional bone-healing. However, in the main, the presuppositions and nature of traditional bone-healing as well as the moral issues emanating from such practices in many African states are discussed.

TRADITIONAL BONE-HEALING: NATURE, PREVALENCE, AND MORAL ISSUES

TBH is an aspect of traditional medicinal practices that concerns joint manipulation, setting and healing of bone fractures through the non-formal canons of alternative medicine. Unlike scientific canons of diagnosis, infection prevention and control, formal training, and regulations that underpin orthodox orthopaedic management, TBH is an alternative medicinal approach to bone management. In many cases, TBH practitioners lack formal training in bone, muscles, and ligament care. Their knowledge is obtained through oral tradition and apprenticeship; their diagnostic and treatment methods are sometimes based on a combination of natural therapies and spiritual intuition. TBH is characterized by undocumented, uncontrolled approaches to bone management with secrecy of the indigenous knowledge system used in the healing process of patients. Essentially, the method of healing in traditional bone setting lacks a sound scientific basis including knowledge of anatomy, radiology, physiology and basic knowledge of bone and ligament-related ailments.

The methods often employed include palpation without radiograph to diagnose fractures,²⁰ indigenous non-scientific methods such as incantations, divination, and herbal medicinal process of scarification, massaging, splinting, and concoctions in wound dressing. While it must be noted that TBH often proceeds from primary explanation of causes of bone ailment to the application of natural medications, massaging with herbal paste, and traditional splinting, a recourse to the use of elements of thaumaturgy is only secondary and supplementary when herbal healing protocols seem abortive. The “inability to get the desired result [from herbal healing procedures is often] being blamed on other forces such as the severity of the initial injury, ancestral spirits or attack by perceived enemies.”²¹

Herbs play a significant role in TBH. Bone fracture is one major area that traditional bone healers provide some prognosis based on indigenous knowledge often kept as a part of ancestral inheritance and family esoterism. Bone fracture treatment in many TBH practices “consists of pushing dislocated bone back to its place via relocation with or without anesthesia, stabilizing their position and then waiting for the bones natural healing process to occur.”²² A diagnosis of the nature and extent of the fracture is undertaken by the indigenous bone healer based on deep experience developed overtime by placing her hand on the injured or frac-

tured part of the body. The type of herbal treatment that would be prepared is a function of the nature of fracture of bone ailment. *Cissus quadrangularis L.*, which is known as *Ogbakiiki* among the Yoruba and called *Da'ddori* among the Hausa both in Nigeria, West Africa, is one effective herb used in reducing inflammation and fracture pain with considerable healing capacity.²²

There is a significant reliance on herbal preparations to control wound infection. Bone fragments are massaged into acceptable and original positions over a long period of time. "Stabilisation is achieved by the application of a traditional splint, fixed traction, anti-rotation devices and bandages fashioned from locally available materials."²¹ Traditional splints are made of palm leaf or dried banana leaf that are stick woven with thread. Upon the reduction of fracture, "scarification marks are made with a sharp blade over the fracture site, and then the site is massaged with a herbal medicament."²¹ Rehabilitation of bone fractures often takes the form of locally made crutches to aid mobility.

Evidently, there is a strong perception about the efficacy of herbal preparations in TBH by many indigenous people. Additionally, the services are highly accessible [and appear to be affordable]. Nonetheless, there is a still deep distrust about the *modus operandi*, methodology, and medical outcomes of TBH by some scientifically minded people, especially, the orthodox orthopaedics. For one, modern orthopaedics is scientifically driven with surgery based on a profound knowledge of anatomy, physiology, and pathology. However, the methods of diagnosis and prognosis in TBH are crude. Additionally, traditional bone healers often resort to the use of incantations, divinations, and thaumaturgy where the ailment is ordered to heal. On top of this, the patient is given amulets and charms to wear. The belief here is that these amulets and charms will drive away the evil forces that can obstruct healing. Implicit in the traditional bone healer-patient relationship, especially where supernatural consultations and interventions are involved, is a disregard for conflict of interests in the supernatural-profane bone-healing process. If a traditional bone healer thinks that treating a patient with severe bone ailment condition would invite the wrath of the supernatural forces on him, they sometimes playdown the patient's diagnosis. In some cases, they deliberately withhold detailed information about the diagnosis for fear of offending the supernatural beings. This decision can have strong negative impacts on patient care and healing process.

For instance, the result of these non-naturalistic diagnostic and treatment methods is the high rate of complications. The quality of services offered is often in doubt. In fact, one study²³ has found a significant association between traditional bone healers' diagnostic/treatment methods and complications. Some commonly reported complications include amputation for musculoskeletal injuries; extremity gangrene, mal-union, joint stiffness, and non-union for bone dislocations. Other reported complications arising from patients that hitherto patronized traditional bone-healers before reporting to orthopaedic hospitals include "septic arthritis, pressures sores and blisters, iatrogenic fractures and other injuries."²⁴ TBH is also the prin-

cipal reason for diagnostic (or appropriate medical care) delays for manageable conditions such as bone injuries in Abang and colleagues²⁵ and Kaposi sarcoma in Yongu and colleagues,²⁶ resulting in osteomyelitis lesions and death for some patients respectively. Moreover, the traditional splint employed in TBH is "not suitable for the treatment of a fracture of the neck of the femur and that the traditional splint and herbal treatment are not capable of healing every fracture."²¹

Despite the complications that usually arise from the practice of TBH, the opinion in many developing societies is that TBH practitioners are better in managing bone ailments than conventional orthopaedists. This is despite studies that have proven the contrary findings.²⁷ Despite the availability of modern surgeons in most communities, most people still prefer to patronize TBH. Thus, TBH has "high patronage and confidence in their communities as about 70–90% of primary fracture care is provided by the TBH in many rural communities in Nigeria."²⁸ One reason for this patronage is the cultural belief that ailments most often have spiritual components that need to be cured by supernatural means—such as incantations and concoctions. These superstitious means cannot be provided by conventional surgeons. A study had reported that 37.5% of people, including educated individuals, patronize TBH because of these beliefs.²⁹ The practitioners of TBH exploit this cultural belief to their own advantage, through the sole claim to supernatural influences necessary for managing bone ailments. TBH practitioners also make very limited referrals. In fact, some TBH practitioners go to modern centers to actually canvass and take away patients with a false promise that they (the traditional practitioners) can provide better care.³ TBH practitioners also claim that their brand of healing has no side-effects,³⁰ and can cure all known diseases.³¹

Part of this high patronage, however, is due to failures and shortcomings in the health systems of most developing countries. For example, in a study published by Aderibigbe and colleagues,³¹ 77.5% of study participants claimed that the attitude of health workers and unnecessary delays in hospital influenced their decision to use TBH services. As much as 60.4% of study participants felt that TBH practitioners gave them better attention and were not rude, while 71% believed that TBH services were faster. Oftentimes, traditional bone-healers crossed the ethical line by delaying referrals, using pseudo-scientific practices with little (or no) benefits, and claiming to be better at providing physical care than conventional doctors. Additionally, the complications are a constant source of challenge for modern surgeons, who often see the services rendered by TBH practitioners as rendezvous in quackery. Nearly all TBH practitioners are unlicensed and unqualified to provide the kind of care they render to patients. Given the several reported cases of complications, their diagnostic and treatment methods are no longer ethically defensible. In one study,²⁵ 15.2% of previous patrons of TBH services regretted seeking treatment from these practitioners; 40.5% would advise other patients to avoid patronizing them, and 10.1% condemn traditional bone healers as incompetent.

Furthermore, there is an ethical responsibility to pay attention to TBH because of its impacts on society and the economy. As documented by some studies,^{25,31} the utilization of TBH is highest amongst men, majority of whom are below 37 years old, and thus, in their productive years. This age group is critical to the economic lifeline of any society.³² Spending time with traditional healers who offer little or no benefit may lead to loss of productive man-hours with resultant deleterious economic impact. Additionally, cultures below the Sahara also tend to be anthropocentric. Men are expected to be breadwinners in their families.³³ Health will be essential for fulfilling these social roles.

TRADITIONAL BONE-HEALING THROUGH THE LENS OF *UBUNTU* ETHICS

Studies on the prevalence, patronage, complications, and reasons for using TBH have largely come from Africa (with a few studies from Asia); prominent in such studies are advises from family members and friends as part of the fundamental drivers for patronizing TBH services.³ This shows that opinions of relatives and family members are given primary importance in health decision-making in Africa. Such opinions might be interpreted in the light of *Ubuntu* virtue of solidarity, which enjoins having concern for the wellbeing of others through helpful behaviours. Solidarity is a function of empathy and sympathy towards the other in qualitative and positive senses. Consider for example, when victims of bone injuries are advised by family members or friends who identify with their conditions to meet traditional bone healers for the treatment of ailing orthopaedic conditions, whether the result of such intervention in a TBH setting is beneficial or not to the victims, an act of solidarity has been exhibited, at least by one side of a communion. While in many cases of such family advise or self-recourse to a TBH centre, there are complications arising from the traditional bone healer's interventions with some considerable risks of harm to the patient and her people in communion, the point of importance is that solidarity might not necessarily be sufficient value in the healing process, especially when it is one-sidedly directional. The traditional bone-healer has an obligation too to be emphatic and sympathetic to the condition and quality care of the patient not just for the sake of patient-healer relationship, but in the interest of sharing a communion of relationship premised on the fact of humanity.

In honouring a communion relationship, the traditional healer has the responsibility of providing TBH treatment regimen that would ultimately sustain and enrich the communion. In this wise, the will to avoid harmful behaviour such as ill will, deception, indifference, and exploitation in the healing process is not enough without the competent proficiency of skills that could improve the quality of life of the patient. Where a traditional bone healer is observed to fail on the account of the *Ubuntu* paradigm of communion, the onus lies on both the patient, families, and the regulating agency to conscientize individuals and communities about the dangers of advising others to patronise the services of such bone healers, which might jeopardize their

well-being. TBH may harm the patient either through the attitudinal disposition of the healer or the incompetence and non-scientific nature associated with the practice in itself, or both. It is apt appealing to *Ubuntu* ethic in the context of TBH as a way of addressing both the attitudinal shortcomings of alternative bone healers and the pseudo-scientific aspects of their healing practices that potentially harm patients. One fundamental prescription of *Ubuntu* is developing the virtue of improving the quality of life of others through empathetic, sympathetic, and altruistic gestures. In observed cases, the traditional bone healer is either not genuinely sharing a way of life with the patients (i.e., acting in ways that evince the good of 'others' (patients and families) as part of a communion relationship), or not acting in solidarity with the patient(s), the community where the traditional bone healer operates has the obligation to conscientize individuals in the community to avoid further patronage of such services and consequently, a prolonged use of pseudo-medicine. This is important as there is often paucity of regulating agency that can sanction, monitor, and provide policy supports for TBH services in many African states. While the absence of such regulating body with enforcement mechanism is an instance of the shortcomings in alternative medicine broadly in many parts of Africa, *Ubuntu* subtly provides normative regulation at the personal and community levels. The epistemic awareness of the relational morality of *Ubuntu* by traditional bone healers, and the obligations it lays on the people may serve as informal self-regulatory means of conscientizing traditional bone healers to be more wary about securing harmonious relationship and therapeutic good between the patients, family caregivers, and the traditional healers' community.

Beyond motivating morally relational attitudes in TBH that can reduce harm, there is a fundamental sense in which *Ubuntu* ethic can be used in evaluating the pseudo-scientific aspects of TBH. As earlier noted in the preceding section, some studies have shown that the non-scientific diagnostic and treatment methods of TBH practitioners are more likely to result in avoidable complications, thereby incapacitating individual's (in communal relationships) ability to achieve full functioning. Given the reported associated complications, these pseudo-scientific aspects of TBH services are inevitably depriving individuals of their capacity for a deep communal relationship. Pseudo-scientific aspects of TBH services have disrupted communal relationships. For example, with gangrene resulting from treatment by TBH, amputated individuals can hardly make returns on labour input or fulfil some other societal roles in anthropocentric societies such as sub-Saharan Africa. By *Ubuntu* normative construct, such pseudo-orthopaedic components of TBH are immoral in so far as they necessitate incapacitation of patients to be in relationship of communion where the virtues of identity and solidarity are primely held. Some practitioners of TBH are inadvertently guilty of failing to commune properly when aspects of their *modus operandi* (such as false metaphysical diagnosis, late referrals, and prognosis) occasion not only division in patients' entrustment of the traditional bone healers' capacity for bringing

about therapy but also when the patients' quality of life deteriorates by leading to preventable loss of limbs, and sometimes death.

Arguably, *Ubuntu* ethic is suitable for reducing the catastrophe associated with diagnostic and treatment methods of TBH practitioners, thereby, reducing harm and contributing towards beneficial care that is respectful of individual persons. How can the many careless and quackery handling of bone injuries patients by some TBH practitioners be reduced or avoided? What can we learn from *Ubuntu* ethic in this regard? *Ubuntu* ethic can be a serviceable normative template in constructing a valuable holistic framework regarding the scope of duties of traditional bone-healers in an integrative context with orthodox orthopaedics. The state of the science (i.e., the availability of evidence-based treatment), availability of modern practitioners and affordability of evidence-based care are important for specifying the "opportunity" an individual has in achieving optimal functioning. Empirical studies have confirmed that modern orthopaedic practices are highly developed in many regions where TBH services are patronized to manage ailments regarding the bones, ligaments, and fractures. Additionally, orthopaedic surgeons and oncologists are also highly successful in managing bone traumas and restoring bone functions. However, the high cost of modern orthopaedic care has been reported as a reason for patronizing TBH services.¹

While a supposed advantage that TBH might have is that in many cases there is no fixed and prescribed fee pattern for TBH services as each patient is enjoined to pay what she can provide, such egalitarian and humane dimension to service-charge is seemingly absent in modern orthopaedic care that is efficient but exploitative from the financial lens of low-income earning groups. Essentially, the high cost of conventional orthopaedic care does not justify patronizing a care practice that is more likely to undermine one's capacity for communal relationships. Based on an application of *Ubuntu* ethic, cost analysis must necessarily include the cost to one's capacity for communal relationships. The sort of relationship that needs to be prized in *Ubuntu* philosophy is a communal one that prescriptively holds the virtues of friendliness, humility, identity, and solidarity as essentially valuable. Such a relational ethic frowns the cost of losing communal relationships. The deeper the communal relationship, the greater the happiness or wellbeing. To this end, an appropriate cost-benefit analysis is one which ultimately, does not undermine an individual's life in the community or the capacity for communal relationship of bone-troubled patients.

Arguably, an alternative fact is that TBH services are not necessarily cheaper than modern orthopaedic care. One study³⁴ has found that "the cost of treatment which was thought to be cheaper at the [traditional bone healers] is actually not so, at least for closed fractures." The multiple little payments system encouraged by TBH practitioners, as well as payments in kind (such as with clothes and animals), are the reasons for this perceived cheapness of TBH services. Dada and colleague³⁴ empirically assessed the cost of treating open fractures by TBH practitioners and

modern practitioners; they found that it was significantly cheaper to treat open fractures at modern orthopaedic centers. Regardless of where the pendulum of the debate on cost affordability and cheapness swings, we think an *Ubuntu*-inspired synergy between TBH and professional orthopaedics would occasion a cost-effective orthopaedic regime that will prize modern techniques of bone management without an attenuation of the first-responders' accessibility to care that TBH institutions provide.

An integration of both the TBH institutions and professional orthopaedics services is not impossible and implausible. An appeal to *Ubuntu* for its communion prescription can bring about a community of bone healing/reconstruction service providers that will promote the common good of health through a process of negotiation and reconciliation. Under such integration, both practitioners in the formal and informal settings would operate in collegiality with properly integrated code of ethics and legislation providing scope of duties and responsibilities. The non-referral and sometimes delayed referral problem in TBH could be better addressed when there is sustained training of the TBH practitioners and subtle appeal to *Ubuntu*. Untimely referral or non-referral is a case of dishonouring communal relationship that can ultimately result in bodily and psychological incapacitation with consequence for social harmony. Anything that undermines social harmony, relational cohesion, is considered immoral. The absence of mutual concern for other's well-being often results in less or no integration of people within a web of relations.

Conflict of interests arising in TBH processes can be better addressed when there is appropriate disclosure of information and respect for the dignity of persons and family caregivers by the TBH practitioners. Information emanating from consultation with supernatural forces should be divulged to the patient, family caregivers and the professional orthopaedics in so far as doing so will not lead to disharmony and further harm incommensurate with the healing process. While the communal lifestyle in many African communities necessitates that clinical decisions should also accommodate views of family members and relatives, reflections on an appropriate way of valuing communal relationships, however, reveal that ethical concerns about disclosure and informed consent in bone healing/management process should be cooperatively balanced without moral distress. Cooperative behaviours are essential to *Ubuntu* norms; to exhibit the virtue of cooperativeness, one is expected to have overtime consistently develop such attitudes including "being transparent about the terms of interaction, allowing others to make voluntary choices, acting on the basis of trust, adopting common goals, and at the extreme end, choosing for the reason that 'this is who we are.'"³⁵ In the context of integrated TBH and orthodox orthopaedics, there is need for cooperation among the stakeholders to be able to arrive at the best course of medical decision on the patient's bone injury.

The greatest threat to the ethical reflection on TBH which we provide in this study might be the argument that TBH is a traditional care practice, and the people love their traditional heritage. It would thus, be difficult to ask indi-

viduals to abandon their heritage. Some may also pointed out that traditional bone services are too prevalent, and the patronage is too high to be easily replaced by modern medicine. One study²⁰ estimates that about 85% of patients with bone infections and fractures patronize traditional healers before contacting modern practitioners. Given this prevalence, TBH services are indispensable and should be incorporated in the broad health care system, rather than rejected altogether.

First, it is not the position of this study that all aspects of TBH services are harmful, or that TBH should be rejected altogether. This study has argued that some aspects of TBH services are beneficial under certain circumstances and could be incorporated or promoted when and where modern healthcare services are not accessible. However, this study has focused principally on the pseudo-scientific aspects of this practice such as its diagnostic and treatment methods which have been empirically shown to lead to avoidable complications, and potentially disrupt prized communal relationships. Therefore, the position of this article is that parts of TBH services might be a useful First Aid practice in the absence of conventional medicine. However, it is unethical to delay referrals or appeal to pseudo-scientific practices that offer little (or no) benefits for physical conditions.

Second, this study argues that prevalence is not a sufficient reason for incorporating TBH services in the healthcare system or claiming that they are indispensable. Moreover, in a study conducted by Onyemaechi and colleagues,³⁶ about 90% of study participants think that traditional bone services are dispensable in their communities. An argument derived from prevalence, for incorporating TBH services in the healthcare system, can easily lead to an ethical drift. Ethical drift as Sternberg³⁷ rightly noted, is the greatest challenge to ethical reasoning, acting ethically, and insisting on ethical practices. Ethical drift occurs when one drifts into behaviours that no “longer uphold the ethical standards they originally set for themselves.” In many parts of Africa, where TBH services are prevalent and frequently patronized, the ethical standard most individuals set for themselves is *Ubuntu*. The ethical drift that must be avoided here is a behavior that is inconsistent with individuals’ prized beliefs. Ubuntu ethic emphasizes relational values of communion, as well as incorporates other important values like beneficence, relational autonomy, and a commitment to avoidable harm. A commitment to avoidable harm might imply, in this context, the need to revise or avoid the diagnostic and treatment methods that have been shown by empirical data, to complicate patient care.

CONCLUSIONS

This paper has discussed the nature of TBH with an exposition of the implicit moral problems in TBH practices in the sub-Saharan. Through a nuanced analysis of *Ubuntu* ethic and its principles in biomedical context generally, the paper applied the principles of *Ubuntu* ethic in the evaluation

of TBH. It is important, however, to note that TBH is not a practice to be condemned in its entirety in contemporary healthcare. The point of this paper is that to achieve better outcomes from TBH, some ethical issues deserve to be addressed. While this paper appeals to *Ubuntu* ethic in addressing the pseudo-scientific aspects of TBH services, this does not necessarily suggest that such framework is exclusively the best normative prism for evaluating and addressing TBH. Instructive, however, is the value for communal relationship in *Ubuntu* ethic, which is an attractive African voice and framework that deserves to be taken seriously in contemporary orthopaedics. In integrating TBH practices with the new orthopaedic professionalism in contemporary African healthcare systems, *Ubuntu* ethic is imperative to a respectful and beneficial care of the patient. It allows the harmonization of duties of TBH practitioners and professional orthopaedics. Such an ethic can ground orthopaedic care that is respectful of conflicts of interests, and individual’s personhood without an attenuation of the common public orthopaedic health good in Africa and beyond.

ACKNOWLEDGEMENTS

We thank the James F. Drane Bioethics Institute of the Edinboro University of Pennsylvania for the research support.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study is a concept paper and does not require ethical approval.

FUNDING

None.

AUTHORSHIP CONTRIBUTIONS

All authors contributed to the manuscript.

COMPETING INTERESTS

The authors completed the Unified Competing Interest form at www.icmje.org/coi_disclosure.pdf (available upon request from the corresponding author), and declare no conflicts of interest.

CORRESPONDENCE TO:

Cornelius Ewuoso
Department of Medicine, University of Cape Town, Cape Town, South Africa
cornelius.ewuoso@uct.ac.za

Submitted: February 22, 2021 BST, Accepted: March 22, 2021 BST



This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CCBY-4.0). View this license's legal deed at <http://creativecommons.org/licenses/by/4.0> and legal code at <http://creativecommons.org/licenses/by/4.0/legalcode> for more information.

REFERENCES

1. Owumi BE, Taiwo PA, Olurunisola AS. Utilization of Traditional Bone-setters in the treatment of Bone Fracture in Ibadan North Local Government. *International Journal of Humanities and Social Science Invention*. 2013;2(5):47-57.
2. Chika A, Onyekwelu J. Traditional bone setters' gangrene: An avoidable catastrophe, 8 years retrospective review in a private orthopedic and trauma center in South-East Nigeria. *The Nigerian Journal of General Practice*. 2016;14(1):1-5. [doi:10.4103/1118-4647.177496](https://doi.org/10.4103/1118-4647.177496)
3. Dada AA, Yinusa W, Giwa SO. Review of the practice of traditional bone setting in Nigeria. *Afr Health Sci*. 2011;11(2):262-265.
4. Alonge TO, Dongo AE, Nottidge TE, Omololu AB, Ogunlade SO. Traditional bonesetters in south western Nigeria--friends or foes? *West Afr J Med*. 2004;23(1):81-84. [doi:10.4314/wajm.v23i1.28091](https://doi.org/10.4314/wajm.v23i1.28091)
5. Metz T. Ubuntu as a Moral Theory: Reply to Four Critics. *South African Journal of Philosophy*. 2007;26(4):369-387.
6. Chuwa L. *African Indigenous Ethics in Global Bioethics: Interpreting Ubuntu*. Springer Netherlands; 2014. [doi:10.1007/978-94-017-8625-6](https://doi.org/10.1007/978-94-017-8625-6)
7. Ujomudike PO. Ubuntu Ethics. In: ten Have H, ed. *Encyclopedia of Global Bioethics*. Springer International Publishing; 2016:2869-2881.
8. Ewuoso C, Hall S. Core Aspects of Ubuntu: A Systematic Review. *South African Journal of Bioethics and Law*. 2019;12(2):93-103. [doi:10.7196/SAJBL.2019.v12i2.00679](https://doi.org/10.7196/SAJBL.2019.v12i2.00679)
9. Metz T. Recent Philosophies of Social Protection: From Capability to Ubuntu. *Global Social Policy*. 2016;16(2):132-150.
10. Koenane M, Olatunji C. Is it the end or just the beginning of ubuntu? Response to Matolino and Kwindigwi in view of Metz's rebuttal. *South African Journal of Philosophy*. 2017;36(2):263-277. [doi:10.1080/02580136.2016.1225188](https://doi.org/10.1080/02580136.2016.1225188)
11. Tutu D. *No Future without Forgiveness*. Rider Random House; 1999.
12. Kayange GM. Restoration of ubuntu as an autocentric virtue-phronesis theory. *South African Journal of Philosophy*. 2020;39(1):1-12. [doi:10.1080/02580136.2019.1665817](https://doi.org/10.1080/02580136.2019.1665817)
13. Sambala EZ, Cooper S, Manderson L. Ubuntu as a Framework for Ethical Decision Making in Africa: Responding to Epidemics. *Ethics & Behavior*. 2020;30(1):1-13. [doi:10.1080/10508422.2019.1583565](https://doi.org/10.1080/10508422.2019.1583565)
14. Ewuoso C. Addressing the conflict between partner notification and patient confidentiality in serodiscordant relationships: How can Ubuntu help? *Dev World Bioeth*. Published online 2019. [doi:10.1111/dewb.12232](https://doi.org/10.1111/dewb.12232)
15. Moodley K, Beyer C. Tygerberg Research Ubuntu-Inspired Community Engagement Model: Integrating Community Engagement into Genomic Biobanking. *Biopreserv Biobank*. 2019;17(6):613-624. [doi:10.1089/bio.2018.0136](https://doi.org/10.1089/bio.2018.0136)
16. Ewuoso C. Ubuntu philosophy and the consensus regarding incidental findings in genomic research: a heuristic approach. *Medicine, Health Care and Philosophy*. Published online 2020. [doi:10.1007/s11019-020-09953-4](https://doi.org/10.1007/s11019-020-09953-4)
17. Havenga Y, Temane A, Ramukumba T, Nolte A. Ethics in Nursing – A South African Perspective. In: Nortjé N, De Jongh JC, Hoffmann WA, eds. *African Perspectives on Ethics for Healthcare Professionals*. Springer International Publishing; 2018:175-188.
18. Madaka NC. Public health policy in resource allocation: the role of ubuntu ethics in redressing resource disparity between public and private healthcare in South Africa. Published online 2019.
19. Fayemi AK. Is skin bleaching a moral wrong? An African bioethical perspective. *Theor Med Bioeth*. 2020;41(1):1-22. [doi:10.1007/s11017-020-09520-1](https://doi.org/10.1007/s11017-020-09520-1)
20. Omololu AB, Ogunlade SO, Gopaldasani VK. The practice of traditional bonesetting: training algorithm. *Clin Orthop Relat Res*. 2008;466(10):2392-2398. [doi:10.1007/s11999-008-0371-8](https://doi.org/10.1007/s11999-008-0371-8)
21. Onuminya JE. The role of the traditional bonesetter in primary fracture care in Nigeria. *S Afr Med J*. 2004;94(8):652-658.
22. Singh V. Medicinal plants and bone healing. *Natl J Maxillofac Surg*. 2017;8(1):4-11. [doi:10.4103/0975-5950.208972](https://doi.org/10.4103/0975-5950.208972)
23. Onyemaechi N, Onwuasoigwe O, Emmanuel N. Complications of Musculoskeletal Injuries Treated by Traditional Bonesetters in a Developing Country. *The Indian Journal of Applied Research*. 2014;4:313-316. [doi:10.15373/2249555X/MAR2014/93](https://doi.org/10.15373/2249555X/MAR2014/93)

24. Odatuwa-Omagbemi DO, Adiki TO, Elachi CI, Bafor A. Complications of traditional bone setters (TBS) treatment of musculoskeletal injuries: experience in a private setting in Warri, South-South Nigeria. *The Pan African medical journal*. 2018;30:189-189. [doi:10.11604/pamj.2018.30.189.15730](https://doi.org/10.11604/pamj.2018.30.189.15730)
25. Abang IE, Asuquo J, Ngim NE, et al. Reasons for Patronage of Traditional Bone Setters. *Niger J Surg*. 2016;22(2):102-106. [doi:10.4103/1117-6806.188993](https://doi.org/10.4103/1117-6806.188993)
26. Yongu W, Elachi I, Mue D, et al. Delayed Presentation of Bone and Soft Tissue Sarcoma of the Extremity in Makurdi: Do Traditional Bone Setters Play a Role? *Journal of Advances in Medicine and Medical Research*. 2017;22:1-8. [doi:10.9734/JAMMR/2017/33753](https://doi.org/10.9734/JAMMR/2017/33753)
27. Zulfiqar Z, Bubak ZS, Jahangir A, Ali Z. Frequency of Complications among Trauma Patients treated by Traditional Bone Setters. *JSZMC*. 2018;9(3):1456-1458.
28. Onyemaechi NO, Itanyi IU, Ossai PO, Ezeanolue EE. Can traditional bonesetters become trained technicians? Feasibility study among a cohort of Nigerian traditional bonesetters. *Hum Resour Health*. 2020;18(1):24-24. [doi:10.1186/s12960-020-00468-w](https://doi.org/10.1186/s12960-020-00468-w)
29. Kuubiere C. Patients preference for traditional bonesetters in northern Ghana. *Al Ameen J med sci*. 2015;8(2):115-118.
30. Al-Naggar RA, Bobryshev YV, Abdulghani MA, Rammohan S, Al-Jashamy K. Knowledge and perceptions of cancer and cancer prevention among Malaysian traditional healers: a qualitative study. *Asian Pac J Cancer Prev*. 2012;13(8):3841-3850. [doi:10.7314/apjcp.2012.13.8.3841](https://doi.org/10.7314/apjcp.2012.13.8.3841)
31. Aderibigbe SA, Agaja SR, Bamidele JO. Determinants of utilization of traditional bone setters in Ilorin, north central Nigeria. *J Prev Med Hyg*. 2013;54(1):35-40.
32. Ewuoso C, Cordeiro-Rodrigues L. Khoikhoi perspectives on public health: Indigenous values for a COVID-19 response in South Africa. *J Glob Health*. 2021;11:03032-03032. [doi:10.7189/jogh.11.03032](https://doi.org/10.7189/jogh.11.03032)
33. Lindsay LA. Working with gender: The emergence of the “male breadwinner” in colonial southwestern Nigeria. Published online 2007:241-252.
34. Dada A, Giwa SO, Yinusa W, Ugbeye M, Gbadegesin S. Complications of treatment of musculoskeletal injuries by bone setters. *West Afr J Med*. 2009;28(1):43-47. [doi:10.4314/wajm.v28i1.48426](https://doi.org/10.4314/wajm.v28i1.48426)
35. Metz T. Ancillary care obligations in light of an African bioethic: from entrustment to communion. *Theor Med Bioeth*. 2017;38(2):111-126. [doi:10.1007/s11017-017-9404-1](https://doi.org/10.1007/s11017-017-9404-1)
36. Onyemaechi NO, Lasebikan OA, Elachi IC, Popoola SO, Oluwadiya KS. Patronage of traditional bonesetters in Makurdi, north-central Nigeria. *Patient Prefer Adherence*. 2015;9:275-279. [doi:10.2147/ppa.s76877](https://doi.org/10.2147/ppa.s76877)
37. Sternberg RT. Teaching for Ethical Reasoning. *International Journal of Education Psychology*. 2012;1(1):35-50. [doi:10.4471/ijep.2012.03](https://doi.org/10.4471/ijep.2012.03)