Decolonising South Africa's pharmacy curriculum – traditional medicine vs rational medicine: crossing the Rubicon

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Abstract

Traditional medicine has been used in South Africa for centuries, mostly without documentation and formal recognition. The introduction of rational medicines into the South African healthcare system was underpinned by organisation, documentation and largely regulation which made for easy use and capabilities. Recently, the South African educational ministry with the Council for Higher Education emphasised the importance of decolonising the higher education curricula, which, in part, means the incorporation of the traditional healthcare system into rational medicine education that culminates in patient care and recovery. Essentially, this mandate finds fruition in bringing together traditional and rational medicine education that ensures sustainable and meaningful education in the service of the people of South Africa.

Keywords: pharmacy curriculum, traditional medicine, rational medicine

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Case in point

A rurally based minor patient living in one of the Eastern Cape villages in South Africa was bitten by a snake. No one could tell the identity of the snake let alone the patient himself. The minor patient's parents took him to a traditional healer who administered traditional medicine. When the patient's condition deteriorated, the parents took their child to the state hospital's emergency room. With little knowledge of the characteristics of the snake and absolutely no knowledge of the traditional medicine that had been administered, medical doctors and pharmacists were playing a game of Russian roulette in a desperate attempt to reverse the situation which appeared to be worsening before their eyes.

As the situation deteriorated, the patient developed epilepsy and spent weeks in the intensive care unit (ICU), and he is now undergoing rehabilitation.

(Shared by a healthcare provider: Courtesy of Frere Hospital Eastern Cape remaining anonymous.)

Introduction

In the case under discussion, alternative arguments may be offered but this is not the thrust of this paper. More often than not, South Africans residing in rural areas seek medical help from traditional healers, otherwise known as traditional health practitioners (THPs). Normally, treatment is administered, and medicines are given to the patient. Little or no knowledge of the ingredients, picking, compounding, mixing or other processes in the pharmaceutical chain is known except by the administrator. This gives rise to confusion when a patient suffers adverse events, or a misdiagnosis occurs. Training in traditional healing is either ancestral or undertaken at special facilities. These curricula and the practical training involved usually remain undocumented. It is these unknowns that rational medicine grapples with, in that the rational healthcare service providers are unable to effectively continue with rational medicine therapy, thus impacting patient care and recovery.

This paper aims to cross the Rubicon between rational and traditional medicine that has as its ultimate goal: patient care and patient recovery. The method utilised in this paper examines the legal challenges a healthcare provider may encounter firstly, and secondly, with which the Government may be confronted should it fail to protect the right of access to health care.[1] In so doing, the paper brushes over the governmental mandate to decolonise the curriculum by including traditional medicine therapy into the ambit of mainstream learning, so-called. The entire paper relies on the occurrence of harm that ensued in a rural village in the Eastern Cape. The minor patient received both traditional and rational medicine therapies. Both therapies must be congruent with a particular meeting point that culminates in patient care and recovery, which is the thrust of this paper.

Thus, the paper makes recommendations and concludes with its findings.

Traditional medicine vs. rational medicine: a quick overview[2]

Traditional medicine and rational medicine represent two distinct paradigms in the realm of health care and healing. These paradigms diverge significantly in terms of their historical foundations, approaches to treatment, validation processes, and philosophical underpinnings. The following academic comparison elucidates the key disparities between these two approaches:

Traditional medicine

1. *Historical and Cultural Heritage*: Traditional medicine has evolved organically within diverse cultural and historical contexts. It is deeply entrenched in the traditions, beliefs, and indigenous knowledge systems of specific communities. Practices within this paradigm are often handed down through generations.
2. *Natural-Based Therapies*: Traditional medicine predominantly relies on natural remedies, encompassing herbal preparations, botanical extracts, minerals, and animal-derived substances. These remedies are administered in accordance with age-old practices and may incorporate rituals and ceremonies.
3. *Holistic Philosophy*: A distinctive characteristic of traditional medicine is its holistic outlook, wherein health and well-being are perceived as interconnected facets of an individual's life. This approach acknowledges not only physical ailments but also considers psychological, spiritual, and social dimensions.
4. *Empirical Observations*: The effectiveness of traditional remedies is typically rooted in empirical observations and anecdotal evidence, rather than rigorous scientific scrutiny. Consequently, the safety and efficacy of many traditional therapies remain unverified by contemporary biomedical standards.

Rational medicine

1. *Evidence-Based Praxis*: Rational medicine, in stark contrast, is characterised by its unwavering commitment to evidence-based practice. It extensively employs empirical research, clinical trials, and systematic reviews to establish the safety and effectiveness of medical interventions.
2. *Pharmacological and Technological Interventions*: Central to rational medicine is the use of pharmaceutical drugs, surgical procedures, and cutting-edge medical technologies that have undergone exhaustive scientific evaluation. These interventions are subject to rigorous quality control measures.
3. *Specialisation and Expertise*: Modern medicine is marked by a high degree of specialisation among healthcare professionals. Physicians, surgeons, and other specialists receive specialised training and possess in-depth knowledge within their respective fields, facilitating precise diagnosis and treatment.
4. *Patient-Centred Care*: Rational medicine places a strong emphasis on patient-centred care. It engages patients in shared decision-making, considering their individual preferences, values, and needs while upholding the principles of informed consent.
5. *Regulatory Oversight*: Rational medicine is subject to stringent regulatory oversight in most jurisdictions, ensuring that medical treatments and interventions meet established safety and efficacy standards. Regulatory bodies monitor and approve pharmaceuticals, medical devices, and procedures.

Traditional medicine and rational medicine diverge fundamentally in their historical origins, treatment modalities, validation methodologies, and philosophical perspectives. While traditional medicine is rooted in cultural and historical contexts and relies on empiricism, rational medicine adopts a rigorous evidence-based approach, prioritising biomedical research and regulatory oversight. The coexistence of these paradigms within healthcare systems underscores their respective strengths and addresses diverse healthcare needs, promoting a holistic approach to patient care.

The mandate

The South African government mandated all schools and higher education institutions (HEIs) to decolonise schooling and tertiary curricula mindful of the pervasive realities South Africans encounter daily.[3,4] Pharmacy, medicine, and, consequently, medical treatment are included in this mandate. Full well cognizant of the challenges that ensue at HEIs, it is critical to appreciate Government's tall order when unpacking the actual meaning of decolonising the curriculum for meaningful learning and execution of knowledge. Specifically, in the pharmacy impact sphere, traditional medicine has been utilised for centuries and thus must be recognised as part of the patient treatment regimen. Traditional medicine is made by traditional healers. Therefore, this means that the traditional healers must be recognised and trained in traditional medicine and the making thereof.

Pertinent and valid questions arise as to the traditional healers training.

Traditional medicines

The World Health Organisation (WHO) observes that it is difficult to assign one definition to the broad range of characteristics and elements of traditional medicine, but that a working definition is essential. It thus concludes that traditional medicines:

> "[Include] diverse health practices, approaches, knowledge and beliefs incorporating plant, animal and/or mineral-based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness".[5]

One of the definitions given for "African Traditional Medicine" by the WHO Centre for Health Development is:

> "The sum total of all knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental, or societal imbalance, and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing".[6]

In South Africa, most people associate traditional medicine with the herbs, remedies (or muti) and advice imparted by *sangomas* or *izinyangas* – traditional healers from African indigenous groups – and with strong spiritual components. Traditional healers are generally divided into two categories – those who serve the role of diviner-diagnostician (or diviner-mediums) and those who are healers (or herbalists).[7,8]

The South African Governmental mandate's antipathy

It is not that the health sciences fraternity, namely pharmacy, medicine and nursing are averse to welcoming the late guest into the health sciences ecosystem. It is rather the absence of knowledge of the workings of traditional healing. The intrinsic and important work of traditional healers can simply not be overstated. Indeed, they play a pivotal role in many communities in South Africa.[9]

Though concern has been raised about the vocation, the medium of study, the curricula, registration of qualifications, and the body appositely qualified to assess the "fit and proper" requirements of all professionals, traditional healing and traditional medicine continue to be used. Presently, an exclusive regulatory body for the oversight of the traditional medicine curriculum does not exist. Without detracting from South Africa's historical past, the present is confounding and must be appropriately addressed. Without the proper mechanisms in place, understanding by the rational health sciences is at a loss. The effort of the Governmental mandate will be in vain.[10]

In our case under discussion, the parents took their minor child for treatment to their local traditional healer, who identified the injury as a snake bite. The minor patient was unable to describe the creature of misery. Thus, the parents relied on the local traditional healer's knowledge of venomous snakes in the region. The traditional healer did not inform the parents of this harmful characteristic. Nor did the traditional healer inform the parents of a rational medicinal antidote or the fact that the emitted venom was a neurotoxin.

The traditional healer did not engage in aftercare patient consultation but rather advised the parents to continue with the traditional medicine. The ingredients utilised in compounding the traditional medicine were unknown to the minor patient's parents. Accordingly, the parents were not adequately equipped to care for their minor child.

When the parents administered the traditional medicine to their minor child, they acted on the traditional healer's advice. They did not know whether the traditional medicine or the absence of the administration of the anti-venom caused their minor son's deterioration in health.

All this pertinent information was not available to the parents when they arrived at Frere Hospital. The healthcare team had to commence with a game of Russian roulette in attempting to symptomatically determine what had caused the minor patient's near-fatal injury. To this end, as they worked in collaboration with the pharmacists, and specialist consultants, *inter alia*, the healthcare team was able to safely conclude that the creature bit with neurotoxins into the patient's bloodstream giving rise to the resultant complications. Amongst others, three salient points come to the fore: knowledge, patient care, and ingredients that are known and applicable in rational medicine administration. These important features were absent in the traditional medicine administration. Whereas rational medicine demands disclosure of ingredients in preps, traditional medicine holds these ingredients out to be a secret or some kind of intellectual property. The question arises as to where and how essential ingredients should be patented and/or disclosed. Failure to know essential basic ingredients may well result in contraindications or no treatment in delaying the harmful impact, as demonstrated by our case.

Where such ingredients are disclosed, the regulatory body which should register them, will depend on the classification. It could be the Medicines Control Act, or the South African Health Products Regulatory Authority (SAHPRA). Knowledge of patient care is another salient point that is mostly present when administering rational medicine but was absent and is mostly absent when administering traditional medicine. Knowledge *per se* has already been alluded to earlier on. Questions that inadvertently arise relate to institutional learning, curricula development, and curricula content. It is well known that traditional healers undertake their studies under tutelage that is heritage-based. What assessment tools are in place to benchmark and assess knowledge assimilation? What training and/or qualifications do the educators have?

These questions have severe repercussions for the healthcare sector and do, unfortunately, lead to potential legal challenges.

Red herrings: legal challenges

Chain of causation: factual and legal causation in determining professional negligence

In law, two kinds of causation must be satisfied to succeed in a claim of professional negligence, namely factual causation and legal causation.[11]

Factual causation refers to the actual chain of events that lead to an aggrieved party suffering damages of a personal or pecuniary kind. Factual causation refers to every action or conduct that leads to the event. In our case, it will apply as follows:[12]

The parents took the minor to a traditional healer, considering him to be an expert in healing. The traditional healer, in law, is deemed to have the requisite health knowledge to diagnose the ailment and administer treatment for same.[13*] If the treatment administered bears a positive effect in that it aids the minor

* The Alma Ata Declaration (1978) made by the International Conference on Primary Health Care was a significant milestone for traditional healthcare as it was one of the first to recognise the role of traditional medicine and its practitioners in primary healthcare. The term 'traditional medicine' should not be confused with "complementary medicine" (CAM). See also Traditional Medicine Strategy 2002-2005, World Health Organization WHO/EDM/TRM/2002 (1):7. The WHO draws a distinction between "traditional medicines" and "complementary and alternative medicines". The latter terms relate to practices such as acupuncture, homeopathy and chiropractic systems – thus a "broad set of health care practices that are not part of a country's own tradition, or not integrated into its dominant health care systems". For a study of the use of the role of complementary and alternative medicines in HIV/AIDS, see Crouch R, Elliot T, Lemmens, T and L. Charland Complementary/Alternative health care and HIV/AIDS; Legal, ethical & policy issues in regulation Canadian HIV/AIDS Legal Network; 2001

patient in recovery, then the attribution of blame will be removed from the traditional healer.

Now, it must be borne in mind that every new act in the chain of events is considered when deliberating before a court of law. So, this means that every new act (*actio interveniens*) that creates a new series of events from the initial event will be taken into consideration.[14] In our case, if the diagnosis and treatment attended by the traditional healer caused further deterioration in the minor patient's condition, then the attribution of blame proportionally will be to the traditional healer. Hypothesising that the traditional healer did not diagnose effectively in that he did not know that the creature emitted a neurotoxin which, in fact, negatively impacted the patient's recovery, then most assuredly the extent of the deterioration from the time of injury until the traditional healer's intervention will be assessed by courts of law or similarly situated bodies. In keeping with these instructive legal principles, we can see how the traditional healer may be held legally accountable.

Legal causation limits the liability of the perpetrator by limiting the sequential acts in factual causation.[15] South African courts have applied the reasonable man test to limit liability such that the conduct of the wrongdoer is measured against the reasonable man's conduct, with the latter being the benchmark.[16]

Unlike other matters, a traditional healer, as the name implies, is a person entrusted with the diagnosis and treatment of ailments.[17] Traditional healers fall within the ambit of a "healthcare provider", with the caveat of non-registration with a legally recognised statutory or regulatory body. In the absence of registration with a recognised body, the wrongful acts may be held to account in a court of law.[18] The applicable legal causation test would then be that of a reasonable person, once again. The legal test will not change.

With the traditional healer's incorrect intervention, the staff administering rational medicine will be exempt from liability because the initial injury was further exacerbated. Moreover, the notion of professional negligence for the staff at the hospital will only commence at the time that the minor patient was received for diagnosis and treatment meaning that the minor patient's claim on negligence will only commence as at receipt of the patient.

Fit and proper

Thus, all healthcare professionals must receive adequate training to effectively carry out their duties. The acquisition of adequate training is closely intertwined with knowledge acquisition.

Accreditation

Ordinarily, knowledge acquisition is regulated and assessed by a regulatory body that holds the necessary skills and expertise to determine the course content and its subsequent practical application.

Mentoring and training

Usually, knowledge acquisition is coupled with mentoring and/or training. If mentoring and/or training are considered independently as is the case with traditional healers, then such must be justified and explained to the regulatory body concerned.

Registration of medicines/products (liability)

When anyone in the healthcare sector administers medicines, whether it be rational or traditional medicine, such medicine's essential ingredients must be known. Usually, the medicines are registered in the interests of effective patient care. When the ingredients are known, then subsequent treatment is facilitated with a better rate of success. When the ingredients are unknown as is the case with traditional medicines, patient care may often be detrimentally compromised.

Registration of the ingredients involves a rigorous process of disclosure through application to bodies such as SAPHRA, for example. When medicines are not registered, then the degree of professional negligence is significantly reduced as the patient acts at his own peril.

Recommendations on integrated or complementary education: The Chinese and Indian Traditional medicine paradigms

There are several best international practices in Traditional Medicine compatible with Traditional Healers in South Africa, notwithstanding South Africa's recognition of THPs.** Thus, the existing legislation should be extended to institutional curriculum development. Presented here are models of countries that have included traditional medicine within their academic environment:

Traditional Chinese medicine

The Chinese healthcare system includes traditional medicine as part of its curriculum. A Diploma in Traditional Chinese Medicine blends modern and conventional practices of traditional Chinese medicine, where students learn how to diagnose and prescribe treatment.[19] Basic theories and practices, such as acupuncture, form the core of the curriculum. Once a student completes their traditional Chinese medicine programme, they are qualified to work in Chinese medical hospitals and clinics, Chinese pharmaceutical industries, and educational institutions teaching the practice, *inter alia*.

Students who receive training to become traditional Chinese medicine practitioners typically work as either acupuncturists or, as stated, practitioners. Some choose to open their own practice,

** In South Africa, THPs are regulated in terms of the THP Act of 2007 (which replaced the THP Act of 2004). South African THP legislation is similar to the Namibian THP Bill of 2014, which describes a THP as a person "registered as a THP registered by the registrar.' In Zimbabwe, the Traditional Medical Practitioners Act of 1981 indirectly provides a definition by defining the 'practice of traditional medical practitioners', and like the other two countries, sets up a body (council) to register THPs. While Zimbabwe, South Africa and Namibia do not specifically define THPs, the Tanzanian Traditional and Alternatives Medicines Act of 2002 gives a precise definition of THPs.

while some work on many levels within the industry. A diploma in the discipline allows individuals to pursue several options within the sphere of traditional Chinese medicine, carrying on practices that have been passed down and improved throughout a seemingly endless number of generations.

Traditional Indian medicine

India is widely considered to be the best country for Ayurveda, as it is the birthplace of this ancient healing system. Ayurveda has been practised in India for thousands of years and is deeply ingrained in the country's culture and traditions.[20] A Bachelor of Ayurvedic Medicine and Surgery, or BAMS, is a course that requires five years and six months to complete and teaches the students everything there is to know about Ayurveda and its application in the curing of various diseases.

One must complete a Bachelor of Ayurveda Medicine and Surgery (BAMS) and be registered in the State Council of Indian Medicine/ Central Council of Indian Medicine in order to become an Ayurvedic Practitioner. In India, a student may proceed to earn a master's degree in the form of MD (Ayurveda) and MS (Ayurveda), a PhD, and clinical doctorate degrees in traditional and complementary medicine at the university level.

In European countries, such as Italy, the UK, and Germany, medical doctors may study Ayurvedic medicine within the framework of postgraduate medical education recognised by medical councils and universities.

Populous countries such as China and India have managed to successfully integrate the study, regulation, and training of traditional medicine with centuries of development. Therefore, South Africa is sure to garner from best practices. Institutional and curriculum development, modes of delivery, assessment and internal regulation by Traditional Healers forming cohorts with expertise must engage in discussions with the relevant healthcare regulatory bodies. These bodies must necessarily include the following, *inter alia*:

- The South African Pharmacy Council which is delegated with pharmacy curricula development; or amend the existing qualifications to be accompanied by relevant training post qualifications;
- The South African Health Products Regulatory Authority to patent or register essential ingredients utilised in traditional medicine preps;
- The Minister of Higher Education and Training who will advise on the core components of curricula development.

Conclusion

The salient challenges discussed under the legal implications demonstrate the need for regulation of traditional healers' training, and informed curricula development. This is not going to be an easy task by any means but it must be done given the percentage of the South African population who seek traditional medicine treatment from a traditional healer. Various mechanisms may be employed to ensure patient care. However, the starting point must be one of the curricula developments, their content, mode of delivery and subsequent practical implementation. This must necessarily be accompanied by proper and effective disclosures in the interests of patient care. Regulation and regulatory oversight are key.

The task is not insurmountable, and it requires an amalgamation of differing disciplines to bring meaningful consultation for sustainable health care.

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