

## Side Effects of the Coexistence of Tradition Medicine with Biomedicine in Primary Health Service Delivery in Rural Areas of Tanzania

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### **Abstract**

*It is approximated that 60-80 per cent of Tanzanians use Traditional Medicine (TM) as their primary source of health services alongside biomedical services. However, there is little information on the side effects of the co-existence of TM with biomedical system to primary health services delivery in Tanzania. By using Helmke and Levitsky's Model of co-existence of formal and informal institutions in comparative politics, this article argues that the coexistence of TM and biomedicine undermine the delivery of primary health services in rural areas of Tanzania due to abrupt stoppage of using biomedicine among users, concurrent use of TM and biomedicine services, poor environment where Traditional Health Practitioners (THPs) practice and selling of counterfeit medicine to the people. The study was carried out in Bukoba District of Tanzania, data were collected through observations, documentary review and interviews which were qualitatively analysed. The study involved 11 THPs, 30 household respondents, four (4) key respondents and five (5) biomedical practitioners who were purposively included in the study. Findings of the study call for the Government to register THPs who provide services to people while they are unregistered and to provide education on proper usage of TM among health services users in rural areas.*

### **Introduction**

In Africa, and particularly in Tanzania, the use of Traditional medicine (TM) is widespread despite the presence of biomedical system. People, especially at the village level, use TM as their primary source of health services to treat different kinds of diseases (Biesen and Dilger, 2012; Kuunibe and Domanbau, 2012; Orisatoki and Oguntibeju, 2010; Payyappallimana 2011; WHO, 2002, Kabyemela, 2020; 2023). It is estimated that 60-80 per cent of people in Tanzania use TM as their primary source of health services despite the

presence of biomedical system (Mbwambo et al. 2007; Kabyemela, 2020). According to Liwa et al. (2017) lower educational level, nonprofessional employment, and lack of health insurance were significantly associated with herbal medicine use in Tanzania. In the midst of the outbreak of COVID-19 that hit the world in 2019, with unprepared biomedicine system, people turned to the use of TM as an alternative remedy. Participants who were involved in the study by Mshana et al., (2021) reported a wide use and perceived high efficacy of traditional remedies to prevent and treat suspected symptoms of COVID-19 in Nyamagana, Mwanza. Moreover, a study by Wenzel (2011) conducted in Shirati, Mara Region, found, among other things, that patients suffered from a variety of ailments and that they often sought both TM and biomedicine to treat a single ailment. It revealed that the majority of the patients who were involved in the study used TM as their first choice because biomedicine did not cure them of the diseases. Furthermore, a study by Iancu (2011), which was carried out in Babati District, Tanzania, revealed that the people in Babati used TM to address simple health problems and went to hospital if they had critical health problems. According to Kabyemela (2020), TM accommodated and complemented biomedicine because it addressed various ailments which are hardly treated by the biomedical system at the village level. Traditional medicine does not cause delays in referring difficult cases to biomedical facilities and it fills the gap of dwindling biomedical facilities in rural areas, and was mostly used to treat non-communicable diseases such as cancer and diabetes (Kabyemela, *ibid.*). Thus, it is clear that people use TM and biomedicine either concurrently or one after the other. The studies revealed the coexistence of the two health systems, but did not empirically establish the side effects of such coexistence on primary health service delivery in rural areas of Tanzania.

TM refers to indigenous health practices, knowledge and beliefs that incorporate plant-, animal- and mineral-based medicines, spiritual therapies, manual techniques and exercises used to treat, diagnose and prevent illnesses or maintain people's well-being (Biesen and Dilger, 2012; Omogbadegun and Adegboyega, 2013). In Tanzania, THPs can be put into four categories, namely diviners, herbalists, traditional birth attendants, and bone setters (Wenzel, 2011). This article focuses on herbalists who are not spiritualist and traditional birth attendants (TBAs) because both provide health services using

herbs. Herbalists use herbal medicines, minerals and certain animal extracts to heal the sick. TBAs aid women when they give birth; treat women-related diseases using herbs; are based in communities where they live; and work outside the Western health system (Kayombo, 2013).

Conversely, biomedicine is a Western health system which views diseases as a form of biological malfunction, with ill-health manifesting itself in chemical, anatomical or psychological changes which can be treated through appropriate medical, surgical and chemical interventions identified through blood tests, x-rays, scans and other scientific ways of disease investigation (Kayombo, 2007). This article focuses on dispensaries, health centres and hospitals found in the study area.

### **Historical Analyses of the Side Effects of the Coexistence of TM and Biomedical System on Primary Health Services Delivery in Tanzania**

TM has coexisted with biomedicine since the latter's introduction into the former German East Africa in the 1880s. This coexistence is mainly due to the perceived inefficiency and inadequacy of biomedicine (Malloy, 2003; Ndege, 2001; Nsekela and Nhonoli, 1976). According to Nsekela and Nhonoli (1976), up to the mid-19<sup>th</sup> Century, the people of Tanganyika totally depended on TM. According to them, there were village healers who used herbs and roots to treat different diseases; there were local traditional priests who linked the living with the dead; and there were people who practised witchcraft. This means that there were THPs who provided health services to people before the coming of colonialism and biomedicine to Tanganyika.

Biomedicine was introduced into Tanganyika by some missionaries in 1887 when the first missionary hospital was opened in Mpwapwa (Mamboya Hospital). Two German and four orderlies came to the colony to provide health services to German colonialists, military personnel, Asians and African labourers who were part of the civil service (Sullivan, 2011). Social services were preserved for the civilized, Indians, Africans who adopted higher standards of living (Mahmood, 1996). During this time, biomedicine focused on preventive and curative campaigns against communicable diseases like sleeping sickness and malaria (Sullivan, 2011). Since biomedicine was reserved for a few Europeans and Africans, most Africans continued to go to

THPs for health services. From 1890 to 1896, there were certain developments in biomedical services. For example, eleven hospitals were opened in the major towns where some German missionaries and civil servants lived (Malloy, 2003; Sullivan, 2011). This suggests that dispensaries targeted those who engaged in missionary activities and who lived far from the majority of people in rural areas. According to Nsekela and Nhonoli (1976), these dispensaries were rudimentary first aid stations staffed by religious sisters. Nsekela and Nhonoli note that the functions of the dispensaries included providing health services to the missionaries and attracting new converts to Christianity. They further note that, during this time, the rest of the country knew nothing about biomedicine and depended entirely on THPs. As far as this article is concerned, this was the beginning of the coexistence of TM and biomedicine in Tanganyika; biomedicine had not yet spread to rural areas by then. TM coexisted with biomedicine because the latter lacked enough personnel, as there were only ten qualified military surgeons who were supposed to serve in eight (8) hospitals located in Pangani, Kilwa, Lindi, Sadan, Moa, Mikindani, Mtwara and Dar es Salaam (Nsekela and Nhonoli, 1976).

In 1891, there were many epidemics, including smallpox, which necessitated the extension of vaccination to ordinary Africans. This extension helped biomedicine to win the minds of such Africans, thereby paving the way for it to spread to other parts of Tanganyika (Malloy, 2003; Nsekela and Nhonoli, 1976; Sullivan, 2011). During this period, one big hospital that provided outpatient services was opened in Dar es Salaam by the German colonial Government in collaboration with a wealthy Indian merchant called Sewa Haji Paroo (Nsekela and Nhonoli, 1976). It should be noted that by the 1890s there were reasonable medical facilities in the big towns, but there were none in the rest of the country. Therefore, most Africans continued to depend on THPs for health services. Nsekela and Nhonoli report further that during and after World War I there were dispensaries and hospitals in most of the major towns in Tanganyika, yet Sullivan (2011) holds that few Africans sought biomedical services in the early colonial period. Sullivan argue further that the introduced biomedicine did not eradicate TM, but increased ‘therapeutic pluralism’ in the colony. In other words, Africans did not abandon TM,

instead, they perceived biomedicine as another system of health service delivery.

In 1918, when Tanganyika was handed over to the British, the colony had a rudimentary health system. Biomedical services were poor due to inadequacies in terms of equipment, personnel and drugs. For example, in 1919 the Ocean Road Hospital had only one nurse (Malloy, 2001; Sullivan, 2011). However, during the German colonial period, the Medical Department took care of the health of Government employees and their families in the towns, while the Sanitation Department focused on the health of the general population in the larger towns, especially in Dar es Salaam and Tanga (Sullivan, 2011). In 1924, the training of Africans was initiated; and it marked the beginning of the spread of biomedicine to rural areas. African paramedics who were trained were responsible for outpatient clinics, laboratory investigations and the prescription of drugs in hospitals (Nsekela and Nhonoli, 1976; Sullivan, 2011). African dressers in biomedicine were trained to provide health services to people in rural areas, and by 1929, there were about 247 African dressers treating the majority of Africans (Sullivan, 2011). At the time, biomedicine faced challenges in rural areas which related to bad equipment, poor essential equipment, limited drug supplies, lack of hospitals and an inadequate number of doctors (Nsekela and Nhonoli, 1976). This suggests that most Africans continued to depend on TM for health services. According to Sullivan (2011), during colonialism, most of the local people in Tanganyika relied on THPs for health services. Patients tried out multiple kinds of medicines and various healers so that they could be healed; this practice is still going on (Langwick, 2008, Kabyemela, 2020, 2023). Biomedicine was used if TM had failed to heal diseases (Sullivan, 2011).

According to Ndege (2001), biomedicine did not take African TM seriously. This might be attributed to the modernization view, which regards traditions as obstacles to development. This resulted in people having various kinds of feelings and reaction to biomedicine. Africans criticized, accommodated and compromised on biomedicine (Ndege, 2001). Conflicts took the form of formal protests, avoidance of public health institutions and drug prescriptions, and indifference to the colonial state's public health campaigns (Ndege, 2001). Those who did not believe in biomedicine criticized its 'methods of

treatment' such as the use of *askaris* to carry out forcible evacuations, the disappearance of bodies, the sucking of human blood for unknown reasons and high mortality rates in hospitals (Ndege, 2001). Conversely, those who served as dressers, nurses and medical assistants used both TM and biomedicine at the same time, which was both accommodating and compromising on biomedicine. Such early coexistence of TM and biomedicine impacted on health service delivery because most of the biomedical methods that were adopted for combating epidemics did not bear fruit (Ndege, 2001).

### **Analytical Framework**

This paper is based on the debate of tradition and modernity and formal and informal institutions coexistence and their consequences on African public administration. The effects of the coexistence of TM with biomedicine is rooted in the differences between modernity and tradition. Modernity means ideas, principles and ideals that cover a range of human activities which are based on Western lifestyles and which evolved in European societies (Gyeke, 1997; Huntington 1971). Modernity emerged in order to address the demands of industrialization which resulted in the emergence of very large social organizations that were supposed to carry out their functions without the influence of personal values and beliefs (Price, 1975). This later led to the rise of universalism whose aim is to reduce personality traits which people bring to new structures, traits which might not provide the base for integration in an organization (Price, 1975). Organizations which are guided by universalistic principles are regarded as formal and those based on particularistic principles are regarded as informal (Gyeke, 1997; Price, 1975). This is relevant to biomedical system which has universal ways of diagnosing, understanding and treating the diseases.

In the area of public administration, modernity led to the creation of rational structures which would guide organizations by reducing particularistic tendencies. The rationality based on universalistic principles implied that tradition was radically devalued. Thus, everything had to be tested anew on the basis of universalistic standards (Weber and Parson 1947). It led to the rational systematization of conduct: individual act was to be understood in terms of its being regulated by a system of rational conduct (Scott and Davis,

2007; Weber and Parson, 1947). Another manifestation of modernity in public administration is bureaucracy, which was aimed at supplanting traditional administration. Scott and Davis (2007) view bureaucratic organizations as having the following features: a clear division of labour, a hierarchy of offices, rules and regulations for guiding decision-makers, clear separation of collective property from personal property, selection of officials on merit, and clear career development. In politics, modernity would be associated with increased equality among individuals in relation to a political system, increased capacity of the political system to operate in relation to its environment, differentiation of institutions and structures found in the political system, rationalization, democratization, government structure integration and mass participation in decision-making (Huntington, 1971).

The explanation above about modernity is relevant to the nature of the biomedical system in Tanzania. The system is organized on the basis of rationally established structures of responsibilities and a hierarchy of offices established by the 1996 National Health Policy, as reviewed in 2003. The structures of its administration are differentiated in the sense that each structure plays a specific role so that the system works well all the time. For example, the biomedical system is organized around a pyramidal referral structure, from the village level to the national level (National Health Policy, 2003; MoHSW, 2015). At the national level, the major administrative structures and health facilities constitute the Ministry, which administers and supervises the national hospital, the consultant, special and referral hospitals, the training institutions, the executive agencies and the regulatory authorities (National Health Policy, 2003). At regional level, the provision of biomedicine is vested in the Regional Administrative Secretaries (RASs) and the Regional Health Management Teams (RHMTs) who, together, supervise regional hospitals and make sure that quality health services are provided in the regions (National Health Policy 2003; MoHSW 2013; MoHSW 2015; Sikika 2012). At the district level, health services are devolved to the district councils that manage and administer health facilities and service providers, including health centres, dispensaries and district hospitals (MoHSW 2015)

Conversely, tradition is perceived to be rural, archaic, agrarian, pre-scientific and resistant to change and innovation (Ciaffa, 2008; Price, 1975; Gusfield,

1967). Tradition means anything that has existed for at least three generations (Gyeke, 1997). Sometimes tradition can be understood by looking at a traditional society. According to Huntington (1971), traditional societies are predominantly ascriptive and particularistic, and have diffuse structures, limited spatial mobility and one relatively stable occupation. Unlike in modern societies where there is legal, rational authority, there is traditional authority in traditional societies. Traditional authority is based on an established belief in the sanctity of old traditions (Scott and Davis, 2007). Traditional authority gives rise to the particularistic and non-diffuse structures exemplified by patrimonial systems, gerontocracy, patriarchy and feudalism (Weber and Parson, 1947). Thus, there is no equality, division of labour and fusion of religious beliefs with institutions like political institutions in such societies (Gusfield, 1967). The above description of tradition fits in well with characteristics of the TM system in Tanzania. Although it is established by the 1996 National Health Policy, the system still has non-diffuse structures which allow THPs to play more than one role, namely being doctors, nurses and producers of medicines (Kabyemela, 2020; 2023). Moreover, TM is based on specific societies because each society has its own way of ‘interpreting’ and treating diseases.

Modernization has had several effects on African political and administrative systems, effects that need to be discussed in this article which focuses on the effects of the coexistence of TM with Biomedicine system in primary health services delivery in Tanzania, which partly examines the side effects of the TM coexistence with biomedicine on primary health service delivery. From the above analyses, it is clear that TM and biomedicine are two different health systems, yet they coexist in rural Tanzania. The two health systems have different ways of understanding, and treating diseases, but it is a fact that people use them both concurrently or sometimes one after another (Kabyemela, 2020). Such co-existence has not been studied to establish its effects on primary health services delivery in Tanzania.

Within the same school of thought, Helmke and Levitsky (2004) have developed a model of formal and informal institutions coexistence in comparative politics which can be used to understand the side effects of TM with Biomedicine in primary health services delivery in Tanzania. Their



model is anchored in institutionalism theory, which mainly focuses on formal institutions as ‘things’ that shape political behaviour. Institutionalists recognize the role that informal institutions play in the functioning of political systems, although informal institutions are regarded as detrimental to formal institutions (Helmke and Levitsky, 2004; Jutting, 2007; Kollner, 2013). Helmke and Levitsky (2004) argue correctly that understanding informal institutions provides a bigger picture of what shapes political behaviour and outcomes. They are of the view that political actors respond to a mix of formal and informal incentives and that, in some cases, informal incentives trump formal rules. They further argue that informal institutions are critical to explaining institutional outcomes. Informal structures shape the outcomes of formal institutions in ways that are less visible by creating or strengthening incentives that make people comply with formal rules and by stabilizing formal institutions.

On the one hand, informal institutions are socially constructed and shared rules – usually unwritten which are communicated and enforced outside officially sanctioned channels (Helmke and Levitsky, 2004). On the other hand, formal institutions are rules and procedures that are created, communicated and enforced through channels widely accepted as official. They include state institutions such as the executive and the judiciary. Helmke and Levitsky contend that at times, informal institutions reinforce or substitute for the formal institutions they appear to undermine. Thus, Helmke and Levitsky (2004) have developed four dimensions that can be used to explain the coexistence of formal and informal institutions, as well as the effects of such coexistence on political behaviour.

The first dimension is a complementary informal system which combines convergent outcomes and effective formal institutions. Under this dimension, informal institutions co-exist with effective formal institutions where actors expect that rules will be enforced. It is correct to argue that informal institutions fill the gaps of the formal institution either by addressing contingencies not dealt with by formal institutions or by facilitating the pursuit of individual goals within formal institutions. Kollner (2013) holds that complementary informal institutions may also serve as a foundation for formal institutions by creating incentives for people to comply with formal

institutions. He also argues that informal institutions can fill the gaps in formal institutions, 'coordinate' the operation of overlapping formal institutions and can work alongside formal institutions in regulating certain kinds of behaviour.

The second dimension is accommodating informal institutions, which relates to how the informal institutions which create their own incentives so as to function in a certain way may alter substantive effects of formal institutions without directly violating them, but by contradicting the spirit of such institutions (Helmke and Levitsky, 2004). They define an accommodating system as a system which results from actors who dislike the outcomes of formal institutions, but who are, however, unable to change it. Thus, informal institutions help to reconcile key actors' interests with existing formal, institutional arrangements (Katomero, 2015). This means that actors start with formal institutions, but end up using some informal arrangements in order to achieve their interests without openly changing the requirements of such institutions. According to Kollner (2013), accommodating informal institutions may not be in open conflict with the stipulations of formal institutions, but may run against the spirit of the latter institutions. According to him, informal institutions increase formal institutions' stability in that kind of situation by reducing the demand for the latter institutions to be changed.

The third dimension is competition which refers to the structuring of incentives by informal institutions in ways that are incompatible with formal institutions (Levitsky and Helmke, 2004). This refers to the time when informal and formal institutions move in different directions; and therefore, informal institutions undermine formal institutions when that happens. The example that is commonly cited in the literature has to do with the Western formal institutions which were imposed on traditionally based institutions (Helmke and Levitsky, 2004; Kollner, 2013). The fourth dimension relates to substitutive informal systems in which informal institutions achieve what formal institutions were designed to achieve but failed to do so. This occurs in a situation where formal institutions are weak or are not applied sufficiently (Kollner, 2013).

The model described above has looked into the co-existence of formal and informal institutions which have historically been treated as mutually exclusive. Unlike formal institutions, informal institutions, have for long been treated as dysfunctional. However, Helmke and Levistky (2004) note that informal institutions are important in explaining political behaviour and, therefore, need to be studied and appreciated because they sometimes reinforce or substitute for formal institutions. When brought to this article, it is clear that TM coexist with biomedicine in the country, and people use both TM and biomedical services. According to Kabyemela (2020) TM complemented and accommodated biomedicine system in the provision of health services. However, what is not known is the side effects of the co-existence of TM with biomedicine in the delivery of primary health services in Tanzania.

### **Methodological Issues**

This article utilizes data from a study that was conducted in five wards of Bukoba District, which is located in north-western Tanzania from December 2015 to April 2016. Bukoba District is one of the rural areas in Tanzania which have a large pool of herbalists as a result of its exchange of knowledge with neighbouring ethnic communities in Uganda, Rwanda and Burundi (Moshi et al., 2010). Moreover, TM is used by many people in the district, regardless of one's education status or age (ibid.). Furthermore, Moshi found that herbal remedies comprised an important and effective component of the health system in Bukoba, where almost 33 diseases, including malaria and epilepsy, were treated using herbal remedies (Moshi et al. 2010). Moreover, the author of this article comes from this district, something that helped her to study and understand TM very well while observing the principle of impartiality at the same time. The author has experience in using TM, and is proficient in the Haya language, which the THPs and household respondents mostly spoke during the interviews. A total of 50 respondents were obtained using a non-probability sampling technique so as to ensure that the included respondents provided information relevant to the research objectives. In that regard eleven (11) THPs, thirty (30) household respondents, four (4) key respondents and five (5) biomedical practitioners were purposively included in the study. The study used an interview guide, observation and documentary

review in data collection, which was analysed through content analysis to answer the research questions.

### **Side Effects of TM Co-existence with Biomedical system on the Delivery of Primary Health Services in Rural Areas of Tanzania**

Various scholars have established various effects of the co-existence of modernity and tradition not only in the political arena, but also in public administration as discussed above. For example, some of the effects of co-existence of modernity and tradition in public administration are personal relations rather than the universalistic laws and rules that guide social interactions in the modern state, economy of affection, corruption, subjects and citizens are part of such effects (Ekhe, 1975; Hyden, 2013; Mahmood, 1996). By using the model of formal and informal co-existence as developed by Levitsky and Helmke (2004), this section is set to discuss the side effects of the co-existence of TM with biomedicine in primary health services delivery in rural areas of Tanzania, for example in competition model of formal and informal coexistence, informal institutions' structure incentives in ways that are incompatible with formal institutions (Levitsky and Helmke, 2004). This refers to the time when informal and formal institutions move in different directions; and therefore, informal institutions undermine formal institutions when that happens. The following section discusses the areas which show that TM and biomedicine move in different direction, thus undermining the delivery of primary health services in Tanzania.

The THPs and household respondents reported that the coexistence of TM with biomedicine had side effects to primary health services delivery in Tanzania. It was also reported by the household respondents that most of the patients who went to THPs were those who had stopped using biomedicines on the grounds that they were not healed. For example, out of the 30 household respondents, 26 said that they had stopped using biomedicines because they were not healed and that they had decided to use TM as a second option. Responding to the question "Do you think using traditional medicines after using biomedicines can have any effects on your health?" one of the household respondents said:

One of my friends was taking some biomedicines because she had blood pressure (BP). She took them for some years. Later, she was told there was a famous THP at Kalonge who healed people who were suffering from blood Pressure (BP). She went to that THP and was told to stop taking the biomedicines. Although she felt better for some time, she died of BP later. It was said she had died because she had stopped taking the biomedicines (Interview January 2016, Male respondent).

This is the area where the coexistence of TM with biomedicine undermines the delivery of primary health services in rural areas, as the discontinuation of a biomedical dosage was abrupt decision of the patient without considering the side effect of such discontinuation. According to Garbus et al. (1979), abrupt discontinuation of high doses of centrally acting drugs such as alpha-methyldopa, clonidine, and guanabenz can produce a syndrome of sympathetic over activity that includes agitation, headache, sweating, and nausea and less commonly can provoke rapid upswings in blood pressure. They further argue that if beta blockers are suddenly stopped, a similar pattern can occur that may be related to excessive activity of thyroid hormones as well as sympathetic factors (Garbus, et al., *ibid.*). They suggest that this problem can be dealt with by educating patients to avoid sudden drug cessation and when elective discontinuation is planned, by gradual dose reduction. Relatedly, Houston (1981) argues that, the abrupt cessation of antihypertensive medication is usually without immediate consequence but may be associated with symptoms and signs of enhanced sympathetic activity, severe hypertension, morbid ischemic cardiovascular events, or death.

Another household respondent who had been suffering from diabetes for years and who had been taking some biomedicine which did not heal him said:

I went to a THP who gave me medicine and told me to stop taking the biomedicine. When I started taking that medicine, I felt bad and lost energy. I was rushed to hospital where I was told my blood sugar had fallen to zero. I almost

died. So, I stopped taking TM that day (Interview January, 2016, Male respondent)

This means, patients seek services from variety of sources which are harmful to their health because the administered TM does not take into account of the previous biomedicine dosage.

The in charge of Mwemage Health Centre, one of the biomedical facilities studied, had this to say regarding the use of TM and biomedical services in the area:

We receive patients, especially pregnant women who have been on TM and who are in critical condition. For example, we received one woman who had used TM called *kalandalugo*<sup>7</sup> when she was seven months pregnant. She had rashes all over her body and had a miscarriage later. She was brought to our health centre in critical condition (interview January 2016, Female respondent).

From the analysis above, it can be argued that the co-existence of TM and biomedicine was impacting negatively health services delivery in rural areas due to the fact that patients who went to seek biomedicine were either told to stop the use of biomedicine before completing the dosage or told to use both which can lead to drug reactions. Although THPs provided health services to people in rural areas, their prescription made patients to abruptly stop the dosage and sometimes to use concurrently both medicine from TM and Biomedicine. This is associated with what happened during the *Kikombe cha Babu* where majority of people died due to abandoning biomedicine in favour of *Kikombe* (Makulilo, 2018).

This is consonant with what Reddy et al. (2012) found when studying the Loliondo phenomenon. One of the findings of that study was that there was reduced adherence to antiretroviral therapy (ART), especially among those who were suffering from HIV/AIDS after being 'treated' by Babu wa

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<sup>7</sup> Kalandalugo is one of the herbs that became famous in the district in 2016 on the belief that it treats Urinary Tract Infections (UTI)

Loliondo.<sup>8</sup> The study shows that 53.5 per cent of the 493 participants who were studied and who went to Loliondo were in search of an HIV/AIDS cure. Adherence to ART among those who had gone to Loliondo declined significantly, which led to the death of several AIDS patients who had abandoned antiretroviral drugs (Vahakangas, 2015). Also, a study by Kaufman et al. (2014) found that 94.9 per cent of the 2313 adults studied believed that, after ‘using’ *Kikombe cha Babu wa Loliondo*, they did not have to use condoms during sex. The study also found that 81.7 per cent believed that they did not have to take antiretroviral drugs after ‘using’ the *kikombe*, which might have led HIV/AIDS patients to stop ‘undergoing treatment’ (Kaufman et al. 2014). Moreover, a study by Blanke et al. (2008) revealed that using TM to treat children aged 0-6 months was common (41.4% of the 596 children studied) in Kigoma District in Tanzania. It further revealed that children who had used TM went to hospital very late and, therefore, died of common diseases. This is also one of the areas that show that the co-existence of TM with biomedicine undermine proper primary health services delivery in rural areas of Tanzania.

Also, an interview with the Registrar of the TM Council revealed that people used TM and biomedicine at the same time because they believed that TM was part of their culture. The Registrar had this to say regarding the concurrent use of traditional medicines and biomedicines:

People, especially pregnant women, use biomedicine and TM simultaneously. It is true that a woman in a labour ward uses TM to speed up contractions. However, we discourage this because it can lead to rupture of uteruses. In a different incident, my aunt had been diagnosed of oesophagus cancer. While waiting for treatment, she had hiccups, and so we called a THP who gave her some medicine. She felt

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<sup>8</sup> Sometime in 2011 a ‘retired’ pastor in Loliondo, Arusha, claimed that he had a traditional medicine for treating various kinds of pandemic diseases, including HIV/AIDS. He said God had instructed him to give the medicine to people for a token payment and that anybody who wanted the medicine had to go to Loliondo and get it directly from him. So, many people from inside and outside Tanzania went to Loliondo that year. He was fondly called Babu wa Loliondo (the Loliondo Old Man) and the cup he used to dispense the medicine to the ‘patients’ was called *Kikombe cha Babu wa Loliondo* (the Loliondo Old Man’s Cup).

well as a result (Interview February 2016, female respondent).

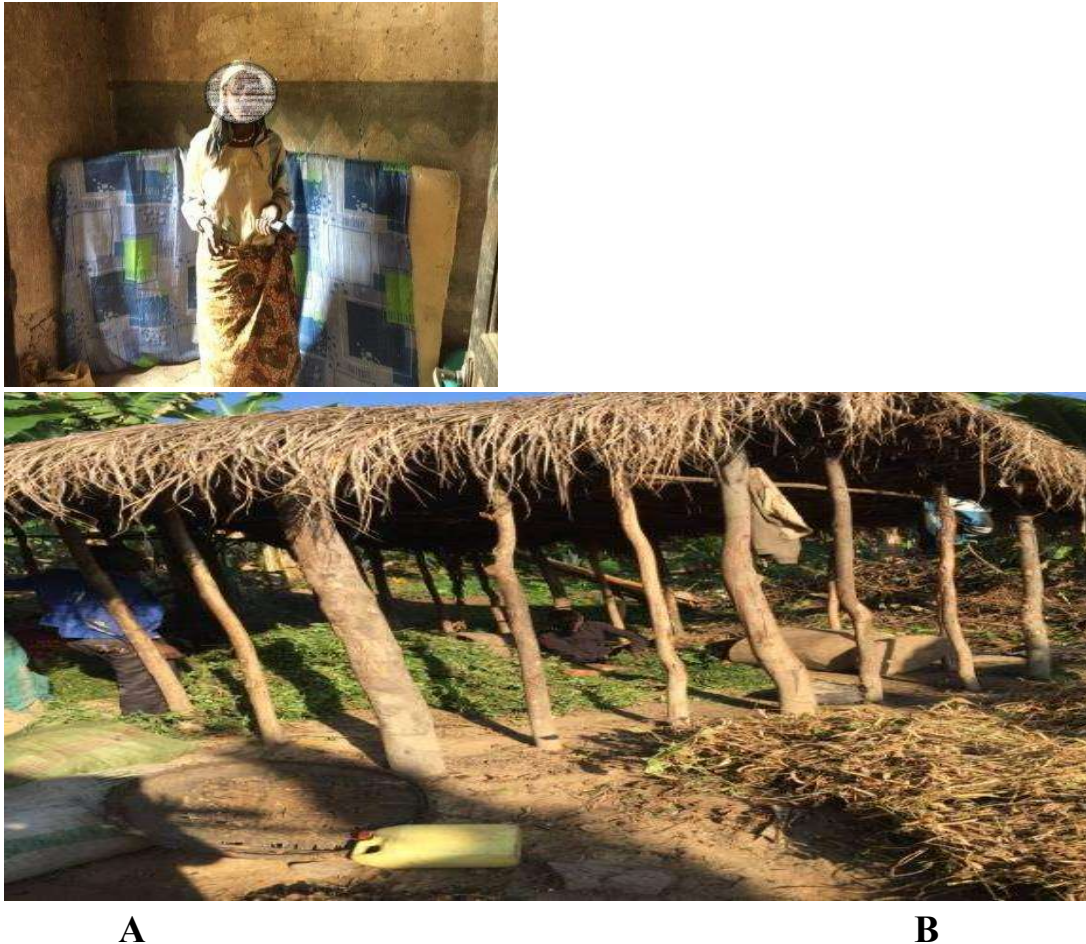
This means that sometimes people use traditional and biomedical medicines concurrently without proper medical advice a thing which undermine proper usage of the services from both health systems. According to Thipanyane (2022), inadequate functional integration of the traditional healthcare system and conventional medicine or biomedicine leads to the uncontrolled use of traditional medicines by the THPs which affect users.

Furthermore, the observations revealed that TM is practised in dirty environment, which could jeopardize the health of patients. All 11 THPs practised in dirty houses. For example, one TBA in Kaibanja Ward helped women to deliver at night in a dirty, tiny and dim room in a house which did not have electricity using unsterilized equipment. According to Thipanyane et al. (2022), restoration of health was one of the key responsibilities of THPs, including the removal of retained placenta. However, the procedure entailed inserting fingers into the vulva and blowing into a bottle until the placenta was ejected. While the placenta was successfully removed, the process's sterility appeared to be compromised, with the potential for unintended infections (Thipanyane et al.,2022).

This is what was observed during the study, all contacted TBAs had no sterile equipment, for example, mattress that was observed to be used in one of the studied TBAs was dirty (observation, December, 2015). The TBAs reported that sometimes delivery took place in dark environment at night which is risk especially where there are complications that need referral to the hospital. Confirming this, one of the TBAs in Kaibanja said:

Quite often I receive women who 'want' to deliver at night. As you can see, there is no electricity here. So, I use an oil lamp to light the room (Interview December 2015, Female Respondent).





**Figure 1.1: Premises where THPs Practise in Kaibanja and Ibwera Wards**

**Source:** Observed in 2015

**Key:** A = A labour room in Kaibanja Ward

B = Premises where herbal medicines are made in Ibwera Ward

Figure 1.1 shows that the premises used by the THPs were dirty and unsterilized. The premises were in that condition because of several reasons for this situation among others is because THPs aid women free of charge thus do not have money to buy required equipment regularly and there were no formal mechanisms of controlling their practices at the village level.

Furthermore, due to the fact that most of the THPs studied were not registered, their medicines and equipment too, patients were at high risk of being cheated by conmen who might use the umbrella of TM to obtain illegal money from users or give users medicines harmful to their health. The medicines of all 11

THPs had not been registered, contrary to the provisions of the 2002 TM Act. This means the THPs would administer medicines whose level of toxicity is not known or administer medicines which not heal the patients. This is in line with Lunyera et al. (2016) who was studying the use of TM among patients with diabetes, he found among others that studied patients used various TM methods to treat diabetes. The herbs that were used included cirtullus, Moringa oleifera, Aloe vera, Clausean anista, Cajanus cajan, Persea americana and Artemisia afra which were found to have direct glucose-lowering effects, with some having specific effects on glucose metabolism. They further found that all the TMs identified also had potentially harmful side effects, including nephrotoxicity, optic atrophy, hepatotoxicity, and volume depletion among others. Also, Aloe vera which is commonly used tropically to treat burns and minor skin conditions, but when boiled and ingested in large amounts to treat dyspepsia, it can cause acute kidney and liver injuries (ibid.). Moreover, Thipanyane et al. (2022), revealed threats posed by unregistered and counterfeit THPs to the lives of pregnant women in rural settings (ibid.). The THPs' wide range of services allowed pregnant women to receive prenatal, antenatal, and postnatal care in proximity but was marked by high levels of secrecy and counterfeit practitioners who used human body parts, which compromised the practice and rendered it unpopular (Thipanyane et al., 2022)

This is consonant with what the Deputy Minister of Health noted about four THPs, namely Dr. Mwaka, Mandai, Fadhaget and Msigwa who, although practised TM, their medicines were not registered (Majira, 2016). Regarding the issue of conmen, the Minister said:

Those who use TM have recently complained that they are being cheated by people who call themselves THPs while they are not registered (Mtanzania, 16<sup>th</sup> January, 2016).

Although THPs are required by law to refer difficult cases to biomedical facilities below the district level, there were no formal procedures for them to do that because they were not registered and did not have any records for their patients as required by the 2002 TM Act. This affects the health services delivery because if a THP fails to heal a patient, it is difficult for him or her

to refer the patient to a biomedical facility or to know what kind of medicine was administered to the patient, if he or she is transferred to a biomedical facility. In a situation like this, the health of the patients is at stake.

Another thing that was observed and that potentially affected the delivery of primary health services was the selling of TM in marketplaces by unregistered and unlicensed THPs. Through the observations, it was established that some THPs sold medicines in marketplaces, regardless of the fact that both the THPs and their medicines were not registered. Although the 2002 TM Act allows the running of TM shops, that way of selling medicines can easily lead patients to buy fake medicines which are harmful to the health of users. Moreover, such selling gives a conducive environment that can be seized by conmen might to con patients out of money because sometimes there were new medicine sellers in the markets who were not known to the people who went there to buy medicines. This means patients at some point buy fake medicine whose toxic level is not known.



A

B

**Figure 1.2: THPs Selling Traditional Medicines in a Marketplace**

**Source:** Observed in 2016

**Key:** A = A THP waiting for clients at Izimbya Market

B = A THP selling some medicine to a patient at Izimbya Market

Figure 1.2 shows that THPs provide health services to people without being regulated.

The interviews with the THPs and household respondents revealed that there were THPs who provided health services to patients who lived far from the THPs' localities by means of mobile phones. Seven of the 11 THPs interviewed said that they contacted patients who lived in distant areas and who had not been healed by biomedicine on the phone and provided health services to them. One of the THPs had this to say concerning the clients she served: I receive relatives of people who suffer from various kinds of diseases. They come here to get medicines for them. I talk with patients over the phone to have a glimpse of what they are suffering from. Then I prescribe medicines for them (Interview January 2016, Female respondent).

This means THPs prescribe medicines to patients without physical contact which is important in decision making especially when there is a need to refer the patient to biomedical facilities if there is complication. Although technology has made TM accessible to people in rural areas, the provision of services through mobile phone expose users to inappropriate procedures and conmen who sell fake medicines which are harmful to the health of the users.

### **Conclusion**

From the analysis above it is apparent that TM coexists with biomedicine in primary health services delivery in rural Tanzania. Using the model of formal and informal coexistence as developed by Levitsky and Helmke (2004), the coexistence of TM and biomedicine undermines the provision of health services due to abrupt discontinuation of services from biomedicines, provision of TM health services in unsterilized environment thus exposing patients to potential infections, THPs' are unregistered, and the medicines are not registered thus causing conmen to use the opportunity to sell counterfeit medicines which are harmful to the patients. Since the Government is in the process of formalizing TM, there is a need to extend the formalization of the TM to the village level. Efforts of formalization should focus on registering all THPs, their medicine, formalize the integration of biomedicine and TM, provide education to health services users for proper usage of the services

from both health systems so that the coexistence of TM and biomedicine can be exploited for improved primary health services delivery.

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