

Traditional Medicine: A Complementary and Accommodating Health Services Delivery System at the Village Level of Tanzania

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Abstract: It is estimated that 60-80 percent of people in African countries including Tanzania use traditional medicine as their primary source of health services despite the presence of the biomedical system. There is scant literature that has paid attention on how traditional medicine coexists with the biomedical system of health services delivery in Tanzania. This article adapts the Helmke and Levitsky model of formal and informal institutions in comparative politics to understand how traditional medicine complements and accommodates biomedicine in health service delivery in Tanzania. It draws on qualitative data from a case study conducted in six villages of Bukoba district, Tanzania in 2016-2017. The study involved traditional health practitioners, biomedical practitioners, household respondents and key informants from the organizations responsible for health services delivery. Data was collected through interviews, key informant interviews, observation, and documentary review. Traditional medicine complemented and accommodated the biomedical system 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 patients to biomedical facilities, and it fills the gap of dwindling biomedical facilities in rural areas.

Introduction

It is estimated that 60-80 percent of the people in African countries, including Tanzania, use traditional medicine (TM) as their primary source of health services.¹ The use of TM in Africa is due to its availability, affordability, and the prevalence of diseases such as HIV/AIDS, malaria, tuberculosis, high blood pressure, and cancer.² Traditional medicine often serves as the primary treatment for HIV/AIDS-related conditions such as dermatological disorders, nausea, depression, insomnia, and body weaknesses.³ A study by WHO done in 1998 for the Roll Back Malaria Program revealed that in Ghana, Mali, Nigeria, and Zambia, more than 60 percent of the children with a high fever were treated at home with TM.⁴ WHO estimates that 80 percent of Africans have sought TM at least once in their lives.⁵ Among of the reasons given for the widespread use of TM in Africa include an inadequate number of medical personnel, exorbitant user charges levied by the providers of modern health services, and the side effects of biomedicine.⁶ Cost-sharing, which was introduced into African countries in the early 1980s as

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the result of Structural Adjustment Program (SAPs), intensified the inaccessibility of modern health services. Rather than continuing to be producer and provider of the services, the state became regulator of the market. SAPs demanded that the state reduce its role and instead allow the private sector to play a greater role in social service provision.⁷ Such reforms led to the introduction of cost-sharing systems in which consumers of health services provided by public institutions were then required to pay for services. Furthermore, in African countries the ratio of traditional medical practitioners to patients ranges between 1:200 to 1:400, while the ratio of biomedical practitioners is 1:20,000.⁸

The use of traditional medicine is widespread in Tanzania, especially in rural areas where a majority of the population use it as their primary source of health services.⁹ This can be attributed to a number of factors, including the fact that TM is available nearly everywhere, affordable and accessible, and the biomedical system has deteriorated. The deterioration of biomedical care can be traced back to the 1970s when Government began reducing funding for the health sector. Between the 1970s and 1980s, Government cut funding for the health sector by approximately six percent. These cuts were exacerbated by an increased inflation rate which stood at 25-29 per cent throughout the 1980s.¹⁰ During this time there was a decline in the quality of health services and chronic shortages of essential drugs.¹¹ This situation caused Government to implement policy reforms that resulted in the introduction of user fees in 1993 for improved efficiency and sustainability in the provision of health services.¹² Moreover, the private sector was allowed to provide health services through the Private Practice Act of 1991.¹³ Nevertheless, problems persisted in some of the public health institutions in the country.

Sikika found that Tanzania had not made meaningful progress towards achieving the objectives of the 2001 Abuja Declaration, which required the signatories to allocate fifteen percent of their total budget to the health sector. However, Tanzania's total health-sector expenditure is still below fifteen percent of the total Government budget.¹⁴ For example, in the 2011-12 financial year, the government allocated only 8.9 percent of its total budget to the health sector.¹⁵ This has caused the quality of health services provided by public institutions to deteriorate. In the 2016-17 financial year, the government allocated only 3.4 percent of its total budget to the sector, which is just a quarter of the budget proposed by the 2001 Abuja Declaration.¹⁶ Given the fact that the public institutions are not functioning well, people have turned to the health services provided by both for-profit and non-profit organizations, which are highly costly at times. The 1991 Private Practice Act allowed the private sector to provide health services to increase accessibility in Tanzania. Over one-third of general health services in the country are currently provided by the private sector.¹⁷

Having realized the widespread use of traditional medicine in the country, the government incorporated TM into its 1996 Health Policy.¹⁸ The policy (as reviewed in 2003) states categorically that TM and biomedicine are complementary.¹⁹ The government passed the Traditional and Alternative Medicine Act in 2002, more than ten years after the Institute of Traditional Medicine was established in 1991 to guide traditional health practitioners (THPs) in their activities. The two health systems operate in parallel in the country, in spite of the government's efforts to formalize TM by setting up a TM research unit.²⁰ This is attributed to, among other things, the differences in theory or perception of diseases and the causes thereof by the two systems, and the way practice is managed in each system.

Traditional medicine refers to indigenous health practices, knowledge and beliefs incorporating plant, animal, and mineral-based medicines, spiritual therapies, and manual techniques and exercises used to treat, diagnose, and prevent illnesses or maintain people's wellbeing.²¹ According to the policy, TM is coordinated and managed by the Ministry of Health, Community Development, Gender, the Elderly and Children (hereafter the Ministry) as well as the Local Government Authorities.²² Until late 2015 the Ministry was called Ministry of Health and Social Welfare (MoHSW). There has been a directorate of TM at the Ministry since 1989. The directorate coordinates the TM Council's activities, while the Ministry coordinates TM activities in the country.²³ The 2002 Traditional and Alternative Medicine Act established the Council of Traditional Medicine whose role is to monitor, regulate, and support the development of the sector.²⁴ Other relevant structures are the Institute of Traditional Medicine and the Department of TM Research at the National Institute for Medical Research.²⁵ This article focuses on herbalists 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 are giving birth; treat women-related diseases using herbs; are based in communities where they live; and work outside the biomedical health system.²⁶

Biomedicine is a Western health system which views diseases as a form of biological malfunction. According to this system, ill-health manifests itself in chemical, anatomical, or psychological changes which can be treated through appropriate medical, surgical, and chemical interventions. The changes can be determined through blood tests, x-rays, scans, and other scientific investigations carried out in laboratories and clinics. The system is run through various structures that are established by the policy and laws governing it.²⁷ The current health service structures and regulations are the result of the 1920 Medical Practitioners Ordinance, which established a biomedical practitioners' board which registers biomedical practitioners. It was reviewed in 1950, a review which led to the establishment of a medical council which oversees medical practices in Tanganyika. The 1996 National Health Policy, as reviewed in 2003, and the New Medical Practitioners and Dentists Ordinance of 1968 established the biomedical system in Tanzania. The policy empowers the Ministry to direct and manage the national, regional, and referral hospitals within the framework of biomedicine. The Prime Minister's Office-Regional Administration and Local Government (PMO-RALG) oversees district hospitals and primary health facilities, including health centers and dispensaries, through the district councils.²⁸

Analytical Framework

This article adapts the Helmke and Levitsky model of formal and informal institutions in comparative politics to understand how traditional medicine complements and accommodates biomedicine in health service delivery in Tanzania.²⁹ Their model is anchored on institutionalism theory, which mainly focuses on formal institutions as "things" that shape political behavior. Institutionalists recognize the role that informal institutions play in the functioning of political systems, although informal institutions are regarded as detrimental to formal institutions.³⁰ Helmke and Levitsky argue that understanding informal institutions provides a bigger picture of what shapes political behavior and outcomes.³¹ 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. Based on this argument, Helmke and Levitsky have developed a more elaborate definition of informal institutions and “ways of coexistence” to explain the coexistence of formal/informal institutions and the effects of this on political behavior.

On the one hand, informal institutions are socially shared rules—usually unwritten—which are created, communicated, and enforced outside officially sanctioned channels. On the other hand, formal institutions are rules and procedures that are created, communicated, and enforced through channels widely accepted as official. Helmke and Levitsky contend that, at times, informal institutions reinforce or substitute for the formal institutions they appear to undermine. Informal and formal institutions may diverge or converge, depending on the extent to which strict following of informal institutions produces substantially similar or different results from those expected from strict and exclusive adherence to formal rules. Also, the effectiveness of formal institutions determines how formal institutions will coexist with informal ones. Effective formal institutions evolve when actors believe that laws will be enforced, and ineffective formal institutions result when actors believe that the enforcement of rules is low. Based on the above arguments, Helmke and Levitsky have developed four “ways of coexistence” that can be used to explain the coexistence of formal and informal institutions.³²

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. Informal institutions fill the gaps either by addressing contingencies not dealt with by formal institutions or by facilitating the pursuit of individual goals within formal institutions. Often, this type of relationship enhances efficiency because informal institutions are closely aligned with formal institutions and support the operation and functioning of the latter.³³

The second dimension involves accommodating informal institutions which combine divergent outcomes and effective formal institutions. Informal institutions which create their own incentives 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.³⁴ An accommodating system 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.³⁵ 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. Accommodating informal institutions may not be in open conflict with the stipulations of formal institutions but may go against them.³⁶

A third dimension combines divergent outcomes and ineffective formal institutions. Competing informal institutions refers to the structuring of incentives in ways that are incompatible with formal institutions.³⁷ 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.³⁸ However, for the purposes of this article complementary and accommodating ways of coexistence guide the discussion because TM did not explicitly substitute or compete with the biomedical system in Tanzania.

Methodological Issues

This article utilizes data from research that was conducted in Bukoba District of the Kagera Region. Bukoba was chosen because it has large pool of herbalists as the result of its exchange of knowledge with neighboring ethnic communities in Uganda, Rwanda, and Burundi.³⁹ Moreover traditional medicine is used by many people, regardless of one's education, status, or age. Furthermore, Moshi found that herbal remedies comprised an important and effective component of the health system in Bukoba, where over thirty diseases, including malaria and epilepsy, were treated using herbal remedies.⁴⁰ The study was conducted in five wards in the district. A total of fifty respondents were obtained using a non-probability sampling technique in order to ensure that the included respondents provided information relevant to the research objectives. The group consisted of eleven THPs (six herbalists and five traditional birth attendants), thirty household respondents, four key respondents, and five biomedical practitioners.⁴¹ The study used an interview guide which was administered to THPs, biomedical practitioners, key informants, and household respondents, and observation and documentary review in collecting data.

How Traditional Medicine Complements and Accommodates Biomedicine

On the basis of the Helmke and Levitsky theory above, complementary coexistence occurs when TM accompanies a relatively effective biomedical system of health service delivery and TM fills gaps left by biomedicine. This happens when biomedical health facilities are located within a ten-kilometer walking distance; when there is a good transport system to health facilities; when drugs, personnel, hospitals, dispensaries, and health centers are available in an area; and when the services provided are affordable in terms of the price of drugs and charges. Despite these circumstances, people still use TM and are healed by it.

Accommodating coexistence indicates people using both TM and biomedicine. It means there are hospitals and health centers in an area, but patients choose to use TM to meet their interests due to the perceived inconveniences of biomedicine. Patients make such choices without openly violating the requirements or spirit of biomedicine. For example, if a patient first goes to hospital but is dissatisfied with the result, he or she then decides to use TM. Similarly, accommodation occurs when people first go to a hospital for diagnostic purposes but then use such information through the services of THPs. This article examines four parameters to establish the manner in which TM complements and/or accommodates the biomedicine system: a) services provided and diseases treated; b) accessibility and availability of services, personnel, and drugs; c) effective treatment of diseases; and d) formal and informal referral systems.

Services Provided and Diseases Treated by Traditional Medicine and Biomedical Facilities

It is sometimes assumed that TM continues from where biomedicine ends.⁴² Milburn contends that TM offers what biomedicine does not: a holistic approach to healing, treatment of chronic pain and illnesses, low technology, and inexpensive services. Interviews indicated that the main services and treatments provided by TM were for migraine, premature rupture of membranes, impotence, infertility, and arthritis, fibroids, back pain, abdominal pain, kidney failure, benign, prostatic hyperplasia, polyhydramnios, UTI, diabetes, blood pressure, and skin diseases. TM also treated contracted pelvis and fetal malpresentation, cancer, cardiomegaly, malaria, stroke, back pain, fibroids, and birth assistance. These conditions were treated using herbs that had been collected from the areas surrounding the THPs' compounds. These diseases could not be treated by biomedical facilities at the village level because as per national health policy, only health centers and dispensaries provide basic health services.⁴³ In this way, TM takes some burden off of biomedical facilities at the higher level. Moreover, chronic pain and illnesses are hardly treated in the dispensaries and health centers in the district. Thus, many people depended on TM because it was the only health service that treated non-communicable diseases and chronic pain at the village level. It was further observed that each THP played the role of doctor, pharmacist, and nurse. They are regarded as doctors because they listen to patients' complaints; as pharmacists because they make, prescribe, and administer medicines; and as nurses because they take care of patients by making follow-ups on their progress. All household respondents interviewed reported that they were told to make several visits to THPs at predetermined intervals.

On the other hand, biomedical facilities in Tanzania are pyramidal in organization. For the purposes of this article only three levels will be discussed to establish the kind of services that are provided by the biomedicine at the village level.⁴⁴ Basic health services constitute the unit at village level. The unit employs two or more health workers called village health workers (VHWs) who provide health education and treat minor ailments in people's homes.⁴⁵ In Kaibanja and Nyakibimbili wards, TBAs also worked with the dispensaries as VHWs. Dispensaries constitute the level above and the services provided at this level include maternal child health services, treatment of simple pregnancy-related conditions, assistance with normal deliveries, and the provision of basic outpatient services to 6,000-10,000 people.⁴⁶ Health centers constitute another level, each serving some 50,000 people. They provide preventive health services, reproductive health services, and minor surgical services.⁴⁷

Interviews with biomedical practitioners of Kaibanja Dispensary, Ntoma Dispensary, Mwemage Health Center, Nyakibimbili Dispensary, and Izimbya Health Center revealed that biomedical facilities provided health services and treated diseases such as reproductive and child health care, inpatient services, family planning, delivery-related services, outpatient services, malaria tests, vaccination, among others. Therefore, it can be argued that TM complements the biomedicine system at the village level by treating some diseases which could not otherwise be addressed at the village level due to National Health Policy framework.⁴⁸

Effectiveness of Treatment and Services Delivery

The study aimed at gauging respondents' views regarding the effectiveness of traditional medicine. This was one of the components used to determine whether TM complemented and

accommodated biomedicine. In response to: “In your opinion, does TM help biomedicine in the delivery of health services?” twenty-seven of the household respondents (90 percent) were of the view that TM helped biomedicine to deliver health services because it had healed them or because they knew people whom it had healed. In fact, all thirty household respondents had been referred by relatives or friends who had used TM and had been healed. A follow-up question on their decision to use TM revealed that twenty-seven of the respondents (90 percent) felt that biomedicine did not heal them despite the fact that they had used it several times (due to the fact that biomedical facilities at the village level hardly treat non communicable diseases and chronic pain). Ruhinda reported a similar situation in his study of bone setters. The study revealed that people were taken to bone setters after the hospitals had failed to heal them.⁴⁹ Specifically, of the thirty household respondents, twenty-two said that they felt well after using TM, although some of them were in the initial stages of using it. Five did not feel well and three could not say anything because they were in the initial stages of treatment. Generally, this suggests that TM is widely involved in the provision of health services and the treatment of diseases among the majority of people in rural areas. The Registrar of the TM Council had this to say: “I witnessed at Tanga Regional Hospital patients leave the hospital and go to bone setters instead. Also, my grandmother used to treat women who were suffering from infertility. So, THPs play an important role in health service delivery.”⁵⁰ Use of TM as a second choice after biomedicine had failed can be attributed to the nature of illnesses, most of which were non-communicable that biomedicine could not treat at the village level. Traditional medicine filled gaps in the structure of biomedical care services.

THPs also pointed out that they received many patients who had made several visits to hospitals without success because the diseases they were suffering from could not be treated by biomedical facilities at the village level. This is consonant with Milburn’s conclusions about the convergence of complementary, alternative, and conventional health care or biomedicine.⁵¹ He argues that biomedicine is poor in respect to health care access, humanistic care, and effective treatment of chronic diseases. For example, of the thirty household respondents, twenty-seven said that, before using TM, they had visited several hospitals and dispensaries or used biomedicines without success. This is akin to Wenzel’s respondents who suffered from a variety of ailments and often sought both TM and biomedicine, although the majority of them first used biomedicine.⁵² The reasons given for the first use of biomedical facilities were that hospitals have superior technology and provide more accurate diagnoses.⁵³ THPs reported that most of the patients they received came from hospitals and the diagnoses from the hospitals were used to prescribe medicines and heal the diseases. In fact, some THPs required their patients to go for diagnosis at biomedical facilities before treatment or to check the progress of the treatment. For example, one of the THPs in Ibwera ward said:

The principle here is that a patient must first have gone to hospital for examination and that he or she knows what the problem is. If I receive a person, especially a person suffering from blood pressure and diabetes, I ask him or her to go to hospital to find out what type of blood pressure she or he is suffering from. Then, I use the information obtained from hospital to treat the disease(s).⁵⁴

This implies that THPs also were aware of the usefulness of technology in the biomedical facilities. Furthermore, the THPs pointed out that, on average, they received roughly twenty-

four patients every week who had unsuccessfully visited biomedical facilities and were treated by using TM.

Sometimes, however, services were not provided because the biomedical facilities were facing certain problems. Respondents mentioned such problems as the scarcity of medicines, shortages of health personnel, inadequate basic equipment, low wages, poor payment for overtime work, and poor security services (especially in the dispensaries). These problems made most of the dispensaries operate only during the daytime (e.g., there was no electricity at Nyakibimbili and Kaibanja). Therefore, TM complemented biomedicine by offering the services people needed in such situations.

Accessibility and Availability of Services, Personnel and Medications

The literature commonly shows that people use TM because it is accessible and available where they live. The assumption is that THPs are utilized because they are community-based and provide health services where people live. Yet observations and interviews with household respondents revealed that there was one public dispensary in each ward. All the health facilities studied were located in areas accessible by road. Motorcycle transport was good in the areas. Indeed, the facilities were located within a ten-kilometer walking distance of respondents' houses.

THPs and household respondents reported that there was a broad range in terms of the patients who sought TM services. The five herbalists interviewed pointed out that they received patients from inside and outside Tanzania. While they received people from their communities or neighborhoods, many patients came from across Kagera region and other regions as well. One of the THPs at Karonge Ibwera had this to say regarding TM's accessibility: "I receive many patients from Dar es Salaam, Tanga, Mwanza, Shinyanga, and other regions. I also send medicines to patients who are far away after telling me how they feel over the phone. They get healed."⁵⁵ It also means that various THPs provide services to people who live far away via mobile phones. This demonstrates a level of flexibility in getting health services through TM compared to biomedicine, which requires a patient to be physically present at a health facility.

In general, it is clear that service accessibility is no longer based on physical distance, but rather on a patient's ability to get in touch with a THP and the latter's ability to ship medicines to the patient. Through the interviews with household respondents, it was established that patients had to travel long distances to find herbalists who could treat them. For example, twenty out of the thirty household respondents were getting TM services from herbalists located in other wards. At Kiizi Kanyangereko ward, patients came from areas far away via motorcycles and cars. Distance did not prevent most patients from accessing THPs because of the presence of an improved transport and communications system in the district. Conversely, TBAs mostly received patients from within their localities.

Service availability was measured by looking at the presence of medications, personnel, prices, and TM facilities at the ward level. THPs claimed that medications were available at any time. However, during subsequent visits to THPs, some patients were asked to return later. On the other hand, biomedical workers reported that drugs were not readily available in their facilities. Three out of the five heads of the biomedical facilities studied said that there were not enough drugs on hand. Three of the five centers cited it as the major challenge they were facing

in the delivery of health services. Furthermore, observation established that there were no pharmacies in the villages. This supports other studies that demonstrate shortages of drugs, medical equipment, and trained staff in Africa generally and in Tanzania particularly.⁵⁶ Also, Kayombo illustrated that health facilities were overwhelmed and served a much larger number of people they were designed to serve.⁵⁷ As a result, essential drugs and other supplies were available in facilities only during the first two weeks of each month. Moreover, respondents in an Afrobarometer survey experienced the following: lack of medicines or medical supplies (57 percent), doctor absenteeism (45 percent) and lack of courtesy (44 percent).⁵⁸ The 2014 survey revealed that Tanzania was underperforming with regard to the level of access to health clinics: 62 percent of respondents interviewed had no access to such clinics.⁵⁹

Traditional medicine does not require many personnel. Based on observations and interviews, each THP had one assistant and they could not be helped by another unless one was chosen as an aide. On the other hand, the dispensaries and health centers in Bukoba district were understaffed and all five health facilities complained of shortages. Nyakibimbili Dispensary had five staff members (one a senior medical officer) and Izimbya Hospital, which is the district's designated hospital, had only twenty medical officers. Ntoma Dispensary had nine staff, Mwemage Health Center nineteen and Kaibanja Health Center five, instead of fifteen and thirty-nine staff recommended workers for the dispensaries and the health centers, respectively.⁶⁰

Household respondents and THPs reported that the medications supplied in the TM system cost between Tsh 500-30,000 and a patient paid only once but was treated until he or she recovered. Household respondents indicated that to be healed, a patient usually had to pay several visits to THPs and on each visit they were given medicines without being charged again. Respondents felt that the charges were affordable, pointing out that they had used a lot of money in biomedical facilities without being healed. The cost of medicines was based on a THP's labor or an amount paid to individuals who collect herbs and make medicines. Medicines are prepared using wooden and clay tools which are not expensive. Therefore, THPs do not need complicated and expensive technology to make drugs. THPs pointed out that they had even provided drugs free of charge because the plants grew in their yard. However, due to the increase in the demand for their services, the THPs had to incur increasing costs to gather herbs and other medicinal materials. As they could not go to the distant locations to get the materials themselves, they needed to hire people. This was one justification for asking patients to pay for services.

Household respondents reported that accessing biomedical facilities was very costly due largely to the requirement to pay for services each visit. All household respondents felt that biomedicine was costly, and that they paid a lot of money whenever they went to such facilities. Moreover, twenty-eight out of the thirty household respondents either had no health insurance or were not members of the Community Health Fund (CHF) that might help them to pay for biomedical services. One respondent was a former district medical officer who now owns a private health center and had this to say regarding charges:

I had spent a lot of money since 2002 on my treatment when I started having back pain. I visited Bukoba District Hospital several times and spent Tsh 600,000 on my treatment. Later I was referred to Bugando, where I also spent almost Tsh 1,000,000 for treatment. Later, I was

referred to Muhimbili National Hospital, where I was told to pay Tsh 8,000,000 for an operation. However, I was healed by a THP, whom I paid only Tsh 5000. So, biomedical services are highly costly.⁶¹

The analysis above shows that biomedicine was costly, especially when a patient had to go to hospital several times. So, this is also an area where TM complemented biomedicine in health service delivery because individuals at various income levels found its services cheaper and more affordable.

Traditional medicine is also available in the marketplaces where people buy food and other items. For example, several THPs in the marketplace in Izimbya ward (not resident in the community) were selling medicines for treating different kinds of diseases. The final price depended on initial price, type of medicine, and a patient's bargaining skills. The price of a medicine ranged from Tsh1000-5000, depending on the type of ailment, the amount wanted, and the patient's bargaining skills. This is also an area which facilitated TM's availability to the majority of people as patients could go to THPs in the marketplaces if there were no THPs in their immediate communities.

Formal and Informal Referral Systems

The referral system is another important dimension that illustrates how traditional medicine complements biomedicine in Bukoba district. Formal and informal referrals constitute another dimension of interaction that facilitates the coexistence of TM and biomedicine. This study focused on where people went when they felt unwell with the hypothesis that if one visited a THP first then referral to biomedical services might be delayed. Intersystem referral can also help one to determine how TM complements and accommodates biomedicine. If biomedicine fails to treat a certain ailment, then a patient can be referred to competent THPs and vice versa. Formal and informal communication between biomedical practitioners and THPs could enhance how TM complements and accommodates the biomedical system. TM and biomedicine are part of the larger system, and therefore they should interact so that the goal of improving health of the Tanzanian people is achieved. Section 34(1) of the 2002 Traditional Medicine and Alternative Medicine Act stipulates that "[w]here circumstances demand, THPs shall make a transfer of patients to hospitals which are below the district level." In addition, section 35(2) (e) of the same Act states that "[e]very registered THP shall transfer difficult cases to hospitals or other practitioners."

Household respondents reported that most of the patients who sought TM were those who had visited biomedical facilities first. Thus, although the referral system was informal, TM complemented and accommodated biomedicine since it did not lead to any delays in the treatment of difficult cases. Instead, it received patients who had not been treated by biomedicine. Furthermore, TM accommodated biomedicine by receiving patients from biomedical facilities in the district who were not satisfied with biomedical services. In that regard, the THPs depended on the information obtained from such facilities to treat their clients. For example, one of the household respondents who used to be a district medical officer stated:

TM complements biomedicine. I had back pain but was not healed by biomedicine. I was healed by TM instead. I have also referred more than one hundred patients who visited my

health centre suffering from certain chronic diseases to the THP, who treated me. Some came back to give me gifts because they were healed.⁶²

Furthermore, THPs said that they demanded their patients go to biomedical facilities to find out the status of their health after using TM for some time. Patients who visited THPs before going to biomedical facilities were told to go to the facilities for examination so that the THPs could know exactly what they were suffering from.

THPs claimed that they (including TBAs) are regarded as part of the biomedical system in some of the areas studied. This was evident in Kaibanja and Kanyangereko wards, where the TBAs also served as village health workers. Informal communication between biomedical workers and THPs also occurs. During interviews, all TBAs said they sometimes received patients informally referred to them by nurses working in the dispensaries. Clearly, TM complements biomedicine by providing personnel that fill various gaps in the biomedical system.

Conclusion

This work contributes to the scant literature on how traditional medicine is used by Tanzanians alongside biomedical care in contrast to most studies focusing on biomedical care. People use co-existing health systems for their own needs and according to their resources. Although there were dispensaries, health centers, and hospitals in the wards, people use TM to treat various ailments which are hardly treated by biomedical system at the village level. TM complements and accommodates a dwindling biomedical system faced with shortages of drugs, equipment, personnel, and high costs. TM is accessible to people from all walks of life, as it offers what health centers and dispensaries cannot. TM remains cheaper than biomedicine because it uses low technology and fewer people to provide services. Government, through the ongoing process of TM formalization, should review the National Health Policy of 2003 to provide more elaborate structures of TM administration thereby enhancing coexistence of TM and biomedical systems at both village and national levels.

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Notes

1 Mbwambo et al. 2007; Payyappallimana, 2011; WHO, 2001, 2014.

2 Biesen and Dilger, 2012; Gyasi, 2011; Kuunibe and Domanban, 2012; Mbwambo *et al.*, 2007. Payyappallimana, 2011; Romero-Daza, 2002; Semali and Ainsworth, 1995; Wenzel, 2011. WHO, 2001, 2014.

3 Mills et al. 2005.

4 Marsland 2007; WHO 2014.

5 WHO 2004.

6 Biesen and Dilger 2012; Kuunibe and Domanbau 2012; Orisatoki and Oguntibeju 2010; Payyappallimana 2011; WHO 2001.

7 Mhone, 2003.

8 WHO 2001.

9 Mbwambo et al. 2007.

10 Munishi and Yezebeck 1995.

11 Lufunyo 2013.

12 Mubyazi et al. 2005.

13 MoHSW 1994; Munishi and Yezebeck 1995.

14 Sikika 2012; WHO 2001.

15 Sikika 2012.

16 *Mwananchi* 2016. *Mwananchi* is a newspaper in Tanzania published daily.

17 World Bank 2013.

18 MoHSW 1996.

19 National Health Policy 2003.

20 Mbwambo et al. 2007.

21 Biesen and Dilger 2012; Omogbadegun and Adegboyega 2013.

22 National Health Policy 2003.

23 MoHSW 1996; Mbwambo et al. 2007.

24 Traditional and Alternative Medicine Act 2002.

25 Mbwambo et al. 2007.

26 Kayombo 2013.

27 Kayombo 2013.

28 National Health Policy 2003.

29 Helmke and Levitsky 2004.

30 Helmke and Levitsky 2004; Jutting 2007; Kollner 2013.

31 Helmke and Levitsky 2004.

- 32 Helmke and Levitsky 2004.
- 33 Kollner 2013.
- 34 Helmke and Levitsky 2004.
- 35 Katomero 2015.
- 36 Kollner 2013.
- 37 Levitsky and Helmke 2004.
- 38 Kollner 2013.
- 39 Moshi 2010.
- 40 Moshi 2010.
- 41 THPs' popularity was the primary reason for their choice, was established from some conveniently selected patients who were using or had used TM for disease treatment purposes. All the biomedical facilities located in the wards were purposively included in the study so that the researcher could understand the way in which TM interacted with biomedicine.
- 42 Milburn 2004.
- 43 Services provided are health education, treatment of minor ailments, maternal and child health services, assistance with normal deliveries, provision of basic outpatient curative services, reproductive health services and minor surgical services.
- 44 The study focused on health centers, dispensaries, and basic units at the village level.
- 45 Kwesigabo et al. 2012.
- 46 National Health Policy 2003.
- 47 National Health Policy 2003.
- 48 National Health Policy 2003.
- 49 Ruhinda 2014.
- 50 Interview with author, January 2016.
- 51 Milburn 2004.
- 52 Wenzel 2011.
- 53 Wenzel 2011.
- 54 Interview with author, December 2015.
- 55 Interview with Traditional health Practitioner in December 2015.
- 56 Kwesigabo et al. 2012; Pappayallimana 2009.
- 57 Kayombo 2012.
- 58 Afrobarometer 2010.
- 59 Afrobarometer 2010.
- 60 MoHSW 2014.
- 61 Interview with author, January 2016.
- 62 Interview with author, December 2015.

