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CHAPTER I INTRODUCTION

1.1 Recent Development of Health and Healing in Africa

1.1.1 Integrative Medicine of Ethno- and Biomedical Systems

Africa has a long history of prolonged use of Traditional Medicine (TM), complemented since the colonial period of time with Modern Medicine (MM) to result in today's complicated situation of plural medical systems, where in addition to socio-demographic and psycho-social factors, the cultural context of health and healing in terms of the indigenous peoples' medical knowledge and practice continue to substantiate a major determinant of the patterns of health care utilisation. In his study on *Plural Medical Systems in The Horn of Africa*, Slikkerveer (1990) introduced the model of transcultural health care utilisation in order to analyse and explain these important aspects of the pluralistic medical configurations in this part of Africa. However, evenly balanced investment as well as resolute political will to promote the formal integration of Traditional Medicine (TM) and Modern Medicine (MM) into a new system of integrative medicine for improved health care development has generally lagged behind, so that clients and patients still have to resort to making choices among and within medical systems and sub-systems in order to obtain adequate health care. While in a growing number of countries in Asia, traditional medical systems are not merely tolerated vis-à-vis the modern medical system, but in fact recognized as a formal part of the state-regulated structure of health care – Sri Lanka, Pakistan, India, Thailand, and China - such an emancipatory process of Traditional Medicine (TM) has been less progressive after independence in many countries of Sub-Saharan Africa. In those African countries which had previously been under French colonial rule, including Mali, Upper Volta and Cameroon, the trend towards liberalization of Traditional Medicine (TM) has been rather slow, while African countries formerly under British colonial rule with less interference from the state have experienced more liberal recognition of indigenous medical systems and their healers (Bannerman *et al.* 1983).

Today, the objective of such envisaged integration between ethno- and biomedical systems, often referred to as *integrative medicine*, is to achieve quality optimal coverage of health care needs of the entire population through concerted joint efforts of different professionals resulting in what is well encapsulated in the Swahili concept of *afya jumuishi* (*integrated health care*). However, over the past decades, major progress has been made in the recognition and revitalisation of Traditional Medicine (TM) into more formal medical systems, fervently encouraged by international organizations such as World Health Organization (1982; 2002; 2008; 2012; 2012). While legal obstacles have been removed, in practice such collaboration has not yet fully been operationalised at the national level to reach fully integration as defined by WHO. (2002b)

Such delayed health care development is not only in contrast with a growing number of science-based recommendations and supra-national strategies for integrated health care, but also runs against the demand of about 80% of the local populations in developing countries, who continue to use Traditional Medicine (TM) for their primary health needs.

While there are many examples of successful interprofessional collaboration among medical practitioners within the modern health sector, such as among physicians, nurses, counsellors, pharmacists, health facility chaplains and paramedics in Africa, not excluding Tanzania, there are fewer numbers of cases of successful efforts of interprofessional collaboration between traditional and modern medical practitioners.

The experience gained by the pioneering *Primary Health Training for Indigenous Healers Programme* (PRHETI) among the Techiman Bono in Ghana has been exemplary in the development of effective collaboration between indigenous healers and modern physicians (Warren 1989; Warren, Slikkerveer & Brokensha 1995). Similar early positive experience has been described in a case study on the utilisation of indigenous healers in Primary Health Care in Ethiopia by Slikkerveer (1982). These examples in Africa have only been followed by a low number of cases of successfully engaging indigenous healers in AIDS prevention programmes in Mozambique as reported by Green (1999), in family planning in Ivory Coast, as reported by Wilson *et al.* (1999), and in the treatment of potentially life-threatening conditions in South Africa, as reported by Puckree *et al.* (2002).

In addition to the continuing negative attitudes of most governments towards the cooperation of physicians with non-medically trained personnel rooted largely in both Western medical ethics and codes of conduct and cosmopolitan medical dominance, several present-day health care delivery systems are still suffering from a biomedical bias, ignorance of local peoples' health demands and the provision of merely non-integrated health care services to their clients and patients (1).

Slikkerveer (2001) underscores the significance of the population demand of clients and patients for a comprehensive form of health care services, which goes beyond the mere physical and mental care as the ultimate basis for an integrated medical system (2). Comprehensive care needs holistic approaches which include not only modern health care but also various other forms of traditional and complementary and alternative health care. In his review of the recent health care development process, Slikkerveer (2001) describes the subsequent approaches and strategies of health care delivery in developing countries with changing foci running from the 1950s Public Health Programmes through the 1960s Basic Health Services; the 1970s Health Planning Processes; the 1980s Primary Health Care; the 1990s Community Health and the 2000s 'Rediscovery of Traditional Medicine (TM) for Integrated Medical Systems'. The major arguments for the development of integrated medical systems include, among others:

- increased failures of Modern Medicine (MM) to comply with patient's expectations;
- sky-rocketing prices for modern health care and medicines;
- increased chemophobia among patients against bio-medical interventions;
- non-effective modern care for mental, chronic and allergic disorders;
- failure to link-up with the socio-cultural background of patients;
- positive reorientation towards indigenous knowledge systems and Traditional Medicine (TM); and
- readily available, culturally appropriate and financially affordable traditional medicines for common illnesses for the larger part of the population.

In general, two main theoretical conceptualisations exist with regard to the term *integrated health care*. Raak *et al.* (2005) refers to a coherent and coordinated set of services, which are planned, managed and delivered to individual service users across a range of organisations and by a range of cooperating professionals and informal health personnel, mainly *within* the modern medical system. It covers the full spectrum of health and health care-related social care. In integrated care, multidisciplinary protocols as well as interdisciplinary practitioners work together for a common cause. The main goal is to achieve better quality of care. In the *Ten Lessons in Collaboration*, Gardner (2005) states that collaboration is a complex partnership, a process which grows over time.

Another perspective on *integrated health care* which is more appropriate for the transcultural situation in Tanzania as elsewhere in Sub-Saharan Africa has been developed for the particular medical configuration in developing countries, where, as Leslie (1976) and Landy (1977) indicate, two key concepts which play a crucial role in the integration process: *medicine* and *medical system*. Land's (1977: 131) classical definition of medicine states that: '*A society's medicine consists in those cultural practices, methods, techniques and substances, embedded in a matrix of values, traditions, beliefs and patterns of ecological adaptation that provide the means for maintaining health and preventing or ameliorating disease and injury in its members*'.

In this context, Landy (1977: 1310) defines a medical system as '*The total organization of its social structures, technologies and personnel that enable it to practice and maintain its medicine (as defined) and to change its medicine in response to varying intracultural and extracultural challenges*'.

Dunn (1976) extends such a theoretical orientation with a more dynamic interpretation of medical systems in relation to health behaviour of clients and patients, which is divided into deliberate or non-deliberate behaviour. In this 'web-like-thinking' view, also known as the 'medical ecological approach', Dunn (1976: 135) categorises a medical system as: '*the pattern of social institutions and cultural traditions that evolves from deliberate behaviour to enhance health, whether or not the outcome of particular items of behaviour is ill health*'. This definition is most appropriate for the present study in Tanzania – as elsewhere in developing nations – where such a medical system is conceptualised as a plural medical system in which local, regional and cosmopolitan medical systems and sub-systems are interacting. Such a pluralistic perspective on medical systems has also been successfully operationalized for the study and analysis of the patterns of transcultural health care utilisation among different ethno-cultural groups in the Horn of Africa (*cf.* Slikkerveer 1995).

The practical implications of such dynamic orientation towards different medical systems, which is directly related to the integrative 'Indigenous Knowledge & Development' (IK&D) paradigm of the 1990s will be further described in relation to the recent re-orientation of the World Health Organization (2007) towards the promotion of integration of medical systems in developing countries.

Since the traditional and modern medical practitioners are the representatives *par excellence* of their medical systems, the assessment of the extent of their professional collaboration is setting the tone for the overall state of integration among medical systems, and will as such form the focal point of the study in the research area of Tanzania.

For health care professionals to achieve higher quality in the long term, conflicts in collaboration are inevitable, and therefore, such challenges need to be addressed accordingly with appropriate strategies. Such a proposition also stands as the basis to continue advocating the collaboration between traditional and modern health care workers despite their differences and sometimes-conflicting worldviews. Although in theory it seems that collaboration between traditional and modern medical practitioners is now gradually being accepted by many African countries, the reality of past experiences of mistreatment of traditional healers in the colonial period of time has continued to cause some reservations (Kayombo *et al.* 2007). The major contentious problem, however, is how to initiate and strengthen such collaboration between the representatives of the two medical systems, characterised by several differences in theory of disease causation and management.

Studies by Murray (1989) and Amason (1996) show that such differences can provide the potential for a greater ability to make complex positive decisions, where varied interests have to be taken evenly into account.

The experience of interprofessional collaboration between the two medical systems in different parts of Africa has been studied and frequently commended in learning lessons, not only in developing countries but also in developed countries (*cf.* Bodeker & Chaudhury 2001). The understanding of the rationale for collaboration attracts much attention to health researchers, policymakers and managers as a prerequisite (*sine qua non*) for developing effective policies which enhance integrated health care in relation to various management, economic and development theories, such as strategic choice theory, resource dependence theory, stakeholder theory and institutional theory (Raak 2005).

In order to make informed decisions under the on-going Tanzanian Health Sector Reform (HSR 1993), to integrate both the traditional and modern medical system, it is therefore of paramount importance to examine the levels of interprofessional collaboration and the factors which correlate with such collaborative behaviours between practitioners of the two systems in order to be able to recommend pragmatic policy strategies on how to maintain effective interprofessional collaboration in order to reach a fully integrated medical system. According to the *Centre for Advancement of Collaborative Strategies in Health* (2003), interprofessional collaboration as part of synergy formation has two components which form the point of embarkation for the analytical model of this study using as ‘dependent factors’:

- *the behavioural patterns of sharing resources; and*
- *the behavioural patterns of working jointly for clients.*

In this way, interprofessional collaboration is defined as an interactive behavioural action of human beings influenced by factors playing a role at both the individual and the system levels. Therefore, this study is based on the theoretical framework of the study of patterns of interprofessional collaboration behaviour within the transcultural configuration of plural medical systems in Tanzania, in which interprofessional collaboration is a key factor in initiatives designed to improve the health services currently offered. While the increasingly complex health problems faced by health professionals are creating more respect and understanding among traditional and modern medical practitioners and the larger part of the population continues to demand and use Traditional Medicine (TM) as their first form of care, there still exists limited knowledge and understanding of the complexity of the interprofessional interactions among these two different types of health functionaries. In this context, interprofessional collaboration between traditional healers and modern doctors is conceptualised as specific patterns of behaviour between two types of professionals who may not share a common professional education, values, socialisation, identity, and experience, but who share the common goal of providing the population with appropriate health care.

The related methodology of the study and analysis of these patterns of interaction behaviour embarks on the health care utilisation behaviour model as introduced for developed countries by Kohn & White (1976) and Cox & Claus (1984), later on further developed and adapted to the complicated analysis of use of various medical systems in developing countries, introduced as the model of transcultural health care utilisation by Slikkerveer (1990). This analytical model of Slikkerveer (1990) has further successfully been operationalised for the comparative analysis of different forms of behaviour, such as bio-cultural diversity conservation behaviour in Bali, Indonesia by Anak Agung Gde Agung (2005); wild medicinal plant utilisation behaviour in Meru, Kenya by Ibui (2007); medicinal, aromatic and cosmetic plant utilisation behaviour in Bali, Indonesia by Leurs (2010); communication systems utilisation behaviour in Lembang, Indonesia by Djen Amar (2010); and partnership cooperation behaviour among traditional and modern birth attendants in Rancaekek, Indonesia by Ambaretnani (2011).

The present study in Tanzania on the patterns of collaboration behaviour among traditional and modern medical practitioners will link-up with such analytical tradition in special research methods and techniques, extended with the concept of *trustworthiness* as an important independent factor in the analytical model (Doucette *et al.* 2005).

The adapted analytical model and its components encompassing the various blocks of independent, intervening and dependent factors will further be elaborated in Chapter III.

1.1.2 The Link between Health and Culture

The knowledge and understanding of health and disease in the socio-cultural context of medical practitioners, their availability and provision of their services to the community are essential to the health levels of any country. Although health is basically an individual experience, the way in which people interpret health and illness and seek to improve their well-being or combat their illnesses is imbedded in the cultural settings of the society or community. People tend to consult others who are either medical practitioners both in traditional and modern systems or those who have experience in the same situation in efforts to prevent or treat illness.

The famous anthropologist, Alfred Louis Kroeber (1876-1960) noted that individuals are born into and are shaped by the pre-existing culture which continues to exist after they die. The link between health and culture is not only evident in contemporary medical practices, but has also been observed during ancient times. Peoples' cultural definitions, be it of their belief, ethnicity, politics, sexual orientation, gender role, or socio-demographic background, affect the way in which they think as well as act, and as such also provides a framework for their health and healing. Culture, and in particular the local cosmovision guides humans in their view and experience of the universe, how they behave in relation to other people, to the supernatural forces, and to the natural environment.

In the same context, Slikkerveer (1990) shows in his above-mentioned research in the Horn of Africa, that efforts to solve complex problems of health care delivery in Africa, as well as in Asia and Latin America, underscore that the related social and cultural factors are crucial determinants in the entire process of health care development. Back in 1871, Edward B. Tylor launched his classical definition of culture as: '*that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by human as a member of society*', which is still useful today. Indeed, culture can be regarded as an inherited 'lens', through which people can perceive the world in which they live and survive. In a process of enculturation, an individual learns and acquires the prevailing culture. Such a process is influenced by the family and other members of the society. However, in the process of acculturation, people also need to understand, accept and adapt to the other culture if they want to live in it. Within the process of acculturation in health and healing, both the *endogenous* determinants of health such as perceived illness, and the *exogenous* determinants such as health institutions and organisations, people relate to each other, and interact with their environment.

The relationship between health and culture has further been documented, analysed and explained in different disciplines such as Medical Anthropology, Ethnomedicine, Medical Sociology, Health Psychology and Health Management. Medical Anthropology combines both Social and Cultural Anthropological approaches underscoring that issues of health and disease are also linked to other cultural aspects such as technology, politics, gender, artefacts, religion and social stratification. As humans are basically both social and cultural beings, the study of social and cultural anthropology is important for the understanding of peoples' knowledge, belief and practices in maintaining their health and treating their illness.

Medical anthropologists tend to accentuate the importance of integrating technological advancement, policy formulation, material design and use, gender, religious teachings and local organisation in the all-inclusive study of human behaviour and interaction towards health improvement. In addition to psycho-social factors; such as knowledge, beliefs and values, socio-demographic factors such as gender, age, education and marital status are among the strongest variables which interact with the patients' utilisation of health services (Slikkerveer 1990). Despite increased globalisation and internationalisation among states, differences in cultures remain as people continue to live in different socio-cultural and ecological settings. As will be further elaborated, several theories and models have been developed in order to further understand the relationship between health and culture as noted by authors such as Landy (1977), Foster & Anderson (1978), Ajzen & Fishbein (1980), Helman (2001). Initially, most of these theories had a restricted focus on rather isolated cognitive and psychological aspects of the relationships between health and behaviour, such as the theory of planned behaviour of Ajzen & Fishbein (1980) which seeks to predict deliberate behaviours from human intention to perform behaviour. However, later studies of transcultural health and illness behaviour in plural medical settings of Slikkerveer (1990), Leurs (2010) and Ambaretnani (2012) have extended the theories of human health and illness behaviour to include a more realistic view on the socio-demographic, psycho-social, economic, organisational and environmental determinants of health and healing through complementary qualitative and quantitative research methods. It is along the line of this comprehensive approach towards the socio-cultural context of health and illness behaviour that this study seeks to document, analyse, and explain the process of interprofessional collaboration between traditional and modern medical practitioners in Mara Region of Tanzania.

In sum, health and illness cannot be studied or understood adequately if they are treated in isolation from their cultural context, rendering this applied-oriented study among traditional and modern medical practitioners in Tanzania from a transcultural perspective on their collaborative behaviour. The focal point of this study on significant factors in the interplay among different categories of variables in the model will be further elaborated in Chapter II.

1.1.3 The Contemporary World of Health and Healing

While the roots of cosmopolitan medicine can be traced back to the Greek naturalistic philosophers such as Hippocrates, Galen and Aristotle, during the sixteenth century, it came under the influence of the philosophy of rationalism of the French Philosopher René Descartes (1596–1650) who defined reason as the source of all knowledge. Thus, for a long time, his dualistic view has led to the separation of 'mind' and 'body', a view which is in contrast with the contemporary philosophies of many ethno- and biomedical systems highlighting the inextricable link between body and mind.

Later onwards, the 'germ theory' of disease as advocated by Louis Pasteur (1822–1895) led to the beginning of Modern Medicine (MM), which put much weight on the infectious causes of diseases rather than on creation and maintenance of physiological and psychological harmony and balance. In turn, it resulted in the emphasis of the treatment of illness aided by robust discoveries of microscopy, X-ray diagnostics and the development of antibiotics. Indisputably, during the last century, the world has witnessed major transformations in human health, such as the development of new vaccines, medicines, technical equipment, and other high-tech applications. At the same time, medical research endeavours, eradication of major diseases such as *Rinderpest* and *Smallpox* and the notable general trend of increase in life expectancy.

Notwithstanding, the recent *Health Report* of the World Health Organization (WHO 2011) shows that these developments have not been able to close the gap in health care where about 20-30% of the world population, especially in the developing countries, have virtually no access to Modern Medicine (MM). Most of the modern medicines and high-tech services are unaffordable to the majority, who live on less than one dollar per day. At the same time, however, 70-80% of the local people use readily available and affordable traditional medicines. It is from this premise that the traditional medical system with its relatively lower prices and appropriate cultural values has to be appreciated and fully integrated into the mainstream medical system in order to contribute substantially to the improvement of local peoples' health and well-being. This important premise is also clearly confirmed in the same *Health Report* of the World Health Organization (WHO 2011). However, clients and patients today tend to demand more holistic approaches in the way they seek to treat their illnesses and diseases, in which Traditional Medicine (TM) and Complementary and Alternative Medicine (CAM) are playing an increasingly important role, both in developed and developing nations.

Lalonde (1974) published one of the first documents to show that apart from the utilisation of health science, health can be improved by the way in which people manage their lifestyle as an individual in the society. The report underscores that determinants of health also include factors of human biology, environment, lifestyle and health care organisations (traditional, alternative and modern) (3). Kayser (2010) supports this view of the individuals' role in his own healthy living by narrating crucial health tips, such as frequent exercise, a balanced diet, healthy eating patterns, and adequate rest. In addition, he notes the importance of socialisation and maintaining a good relationship with others.

While Modern Medicine (MM) certainly deserves credit in combating diseases as the 'invaded enemy' by the use of vaccines, medicines, radiotherapy, chemotherapy, surgical interventions, it has not paid much attention to the restoration of the imbalances in the holism of patients. The challenge today is presented by a metaphor as explained by Triverty & Anderson (2002) who considers health services as: '*repair*' rather than '*war*': the problem of rats making their way inside the house could be managed well by repairing all the gaps rather than concentrating on using poison and traps.

The World Health Organization (2012) indicates that Africa is seriously affected by infectious diseases which are responsible for more than half of its *Disability-Adjusted Life Years* (DALYs), with more than six million deaths per year. In most cases, there are inadequate and non-affordable therapies of modern health services and therapies. The WHO Report adds that the negative impact of the burden of disease to the Gross Domestic Product (GDP) is approximately ten billion US \$ each year. In such a situation, a need for a fully integrated medical system becomes inevitable. As Pearce (1982) explains, since the 1970s, a radical change towards the integration between Traditional Medicine (TM) and Modern Medicine (MM) has been gradually implemented by many practitioners and health policy makers. Through the Africa region of the World Health Organization, the African Union Heads of State declared the period of time of 2000-2010 as the *African Decade on African Traditional Medicine* (Kofi-Tsekpo 2004). This important declaration signifies the acknowledgement by the African national governments and international organisations of the need to integrate Traditional Medicine (TM) as well as Complementary and Alternative Medicine (CAM) into the national health care system.

Indeed, more planners and policy makers today are giving increasing attention to the prevention and treatment of diseases of the population through the use of all possible resources ranging from the traditional, transitional and modern medical systems, while at the same time improving the other components which affect the general health of the population. In Tanzania,

the occasionally negative attitudes towards traditional healers, their medicines and services are resulting from the long colonial suffering and religious hermeneutics, resuscitated by the 'groupthink' machinery which continues to impose an irrational consensus at the expense of consumer rights, efficiency in health care services and the overall reality of medical pluralism. Following the new approach and freedom of medicine, Trivieri & Anderson (2002) quote Thomas Edison saying: *'The doctor of the future will give no medicine, but will interest his patients in the care of human frame, in diet and in the cause and prevention of diseases'*.

1.2 Tanzania and Development in Health Service Delivery

1.2.1 Tanzania: A Country of Diverse Natural Resources

The Republic of Tanzania formed on 26/04/1964 as a Union between Tanganyika and Zanzibar. It is located in Eastern Africa, and covers an area of approximately 974,446 square kilometres. Based on the Tanzania National Bureau of Statistics (2012) data, it has a growth rate of 2.6 % with a total population of 44,929,002, based on the 2012 national census (4). Tanzania is a coastal country with abundant fishery resources from marine waters which include the Indian Ocean and the fresh waters of the Great Lakes such as Lake Victoria, Lake Tanganyika, and Lake Nyasa. The country also has small lakes, rivers and many swamplands. It is covered by about 33.5 million hectares of forests and woodlands which bring earnings from exports as well as provision for employment.

The country has numerous properties with outstanding universal values, which are inscribed in the *World Heritage List* of the UNESCO. These properties include places with diverse historical, cultural and natural interest ranging from the Central Slave and Ivory Trade Route and Market of the stone towns of Zanzibar and Bagamoyo, the ruins of Kilwa Kisiwani, and the Kondoa rock art sites to places with unique species of fauna and flora substantiating the magnificent biodiversity of the major National Parks and Game Reserves. These natural enclaves attract much tourism, such as Serengeti, Ruaha, Ngorongoro, Mikumi, Tarangire, Kilimanjaro, Lake Manyara, Selous, and Mount Meru. The famous palaeo-anthropologists Dr. Louis and Mary Leakey discovered many fossils in the Olduvai Gorge, including the *Zinjanthropus/Australopithecus Boisei*, dating back to 1.75 million years ago. Also they discovered the *Laetoli foot prints* of the *Australopithecus afarensis*, showing that Tanzania is a major country of East Africa's 'Cradle of Humankind' where many of the earliest human ancestors lived.

The economy of Tanzania, however, is among the poorest in the world. According to the UN Statistical Report (2009), about 36% of the total population lives below the international poverty line, where the *GDP per capita* is about US \$1,400. According to the Tanzania Economic Review (2010), the real GDP grew by 6% in 2009 as compared to 7.4% in 2008. However, the achievements have not been translated into improved equitable household incomes. In fact, the slowdown has been largely the result of the global financial crisis of 2008-2009 and the concurrent drought in the country, which affected negatively the agricultural production, as well as the supply of hydroelectric power, crucial to industrial and commercial activities. The country's economy depends predominantly on small-scale agriculture, which is a slow-reforming sector with non-traditional exports.

In addition, the country is faced with problems of lack of effective strategic plans, poor resource databases, a certain level of inefficient management and control of resources, some archaic statutes, a poor infrastructure, and an ongoing process of deforestation.

Since the introduction of a multiparty democracy, the political climate is characterised by good governance, assurance of peace and social stability. Similarly, there is greater freedom of expression, and continuous appraisals of policies and systems by the population. This situation sets the stage for envisaged improvement in health care service delivery and the related health status of the entire population. Tanzanians today live in a pluralistic medical system, where different categories of medical practitioners from various medical systems are providing services ranging from Traditional Medicine (TM), to transitional medicine to Modern Medicine (MM), despite the current government's primary focus on Modern Medicine (MM), as is the case in many other developing countries.

1.2.2 Traditional Medicine (TM) in Tanzania

The World Health Organization (2002) defines Traditional Medicine (TM) as: *'the sum total of the knowledge, skills, and practices based on the theories, beliefs, approaches and experiences indigenous to different cultures, whether explicable or not, incorporating plant, animal, 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'*. Historically, it is commonly agreed that Traditional Medicine (TM) in Tanzania is an outcome of a long-standing struggle of indigenous people towards managing their environment and health status. Apart from the modern health services based on Western-oriented cosmopolitan health care, Tanzanians have used their own indigenous *Bantu medicine* as a sub-system of the traditional medical system of East Africa for more than a century in the pre-colonial era, and evidence shows that about 70-80% of the patients use Traditional Medicine (TM) for their primary medical needs. Traditional Medicine (TM) has been provided by different categories of medical practitioners, identified as *Waganga wa Jadi* (Traditional Healers) - as shown in Figure 1.1 - *Wakunga wa Jadi* (Traditional Birth Attendants), *Ngariba* (Circumcisers), *Waganga wa Jadi wa Mifupa* (Bonesetters), and *Wabashiri* (Soothsayers).

In pre-colonial Tanzania, traditional medical practitioners were highly respected and often acted as famous advisors to the tribal Chiefs on issues of illnesses, environments, socialisation and behaviours. They were allowed to practice their knowledge and skills freely. Both the German and the British colonialists, however, made efforts to suppress the work and role of the traditional healers, while their foreign religious teachings were also against the practice of Traditional Medicine (TM).

In the post-independent era, Tanzania initially started to recognise Traditional Medicine (TM) again under the Ministry of Culture, until 1989, when it has been placed under the Ministry of Health. The *Traditional Medicine (TM) Research Unit* in Dar es Salaam has been established in 1974, with the objective to promote Traditional Medicine (TM) in the country. Soon thereafter, both the *Medical Practitioners and Dentists Ordinance* and the *Pharmaceuticals and Poisons Act* (1978) provided further legal recognition of traditional healers to allow them to practice in their communities. In 1985, a sub-section under the preventive services has been formed to cater to the training and upgrading of the Traditional Birth Attendants (TBA) for improved Maternal and Child Health (MCH). These positive developments occurred soon after the *Declaration on Primary Health Care* of Alma Ata (1978). Although to date, Traditional Medicine (TM) is recognised under the new Act of 2002, most of the traditional healers still continue to practice in secrecy under the ambiguous formal recognition. As such, Traditional Medicine (TM) still has not yet been fully integrated into the health sector of Tanzania.

Apart from the continued utilisation of the Bantu-oriented Traditional Medicine (TM), practiced over many generations in all regions of Tanzania, the country has recently experienced the influx of Complementary and Alternative Medicine (CAM), which has been introduced from North America. While Complementary and Alternative Medicine (CAM) is sometimes confused with Traditional Medicine (TM), the difference between the two is underscored by the World Health Organization: Complementary and Alternative Medicine (CAM) refers to a broad set of health care practices and services, which are not part of that country's own tradition and are not integrated into the dominant health care system.

In addition to Traditional Medicine (TM) and Complementary and Alternative Medicine (CAM), there exist in Tanzania other alternative medical systems, such as and Traditional Chinese Medicine (TCM), including herbal medicine and acupuncture, Indian Ayurveda, Graeco-Arabic Unani Medicine and Korean Medicine.

According to the *Tanzanian Traditional and Birth Attendants Implementation Policy Guidelines* (2000), much of Complementary and Alternative Medicine (CAM) began to emerge in Tanzania in the early 1990s. These practices include acupressure, acupuncture, aromatherapy, astrology, homeopathy, massage therapy, meditation, naturopathy, osteopathy, Qi Gong, shamanic healing, spiritual counselling and Yoga. The practitioners concerned generally use some modern scientific approaches and medical instruments, have prescription forms, and document their records in a rather organised manner.

Moreover, these practitioners have gone through some formal training in schools and colleges. According to some clients and patients, interviewed during the 2008 fieldwork on the subject of Complementary and Alternative Medicine (CAM), the practitioners in general enjoy a higher socio-economic status than their counterparts in Traditional Medicine (TM), due to their income from charging higher patient fees.

1.2.3 Modern Medicine in Tanzania

In line with the *Tanzanian 2025 Vision* and the *United Nations Millennium Development Goals* (2005), the Tanzanian Ministry of Health and Social Welfare (MoHSW) collaborates with the Prime Minister's Office-Regional Administration and Local Government (PMORALG), and with the Development Partners (DPs) through the adopted *Joint Assistance Strategy for Tanzania* in order to mobilise resources and implement health activities, projects and programmes. As in other parts of Africa, hitherto, the structure of the Tanzanian health services in the modern or allopathic health sector assumes a pyramidal pattern of a referral system as recommended by the health planners. This pattern is built up from the Village Health Service to the Consultant Hospital as follows:

- *Village Health Services:*
The lowest level of health facility which deals with preventive measures and kind of First Aid services during emergencies in the communities. At least two shortly-trained Village Health Workers offer services from village health posts.
- *Dispensary Services:*
The facility positioned above the health post, where Clinicians and Nurses typically serve only between 6,000 to 10,000 outpatients per year.

- *Health Centre Services:*

Organised to serve one administrative ward with a minimum of approximately 50,000 people per year, Health Centres give both in- and outpatient services. Apart from Clinicians, here one finds, Assistant Medical Officers, Nurses, Laboratory Assistants, Pharmaceutical Assistants and other allied health personnel. It is at this level where more elaborate reproductive health services start to be offered in collaboration with the Districts Maternal and Child Health Clinic.



Figure 1.1: A traditional healer of the Serengeti, Tanzania with his professional attributes inside his practice in Mugumu.

Source: Fieldwork (2009)

- *District Hospital Services:*

This level takes care of the entire district, thus receiving referrals from dispensaries and health centres. Wherever there is no government District Hospital, a memorandum of understanding with a religious-owned hospital is in effect, normally known as Designated District Hospitals (DDH) as Nyerere DDH is shown in Figure 1.2. More services including major surgeries and availability of more trained medical personnel are found in District Hospitals than Health Centres and Dispensaries.

- *Regional Hospital Services:*

Its target area is an administrative region. Regional Hospitals give similar services to those found at the District Hospital but with some additional specialities and to a greater extent in terms of patient intake. The Regional Medical Officer is the head of health matters in the whole Administrative Region and therefore a member of the respective Region Secretariat and the Regional Development Committee.



Figure 1.2: Nyerere Designated District Hospital where the population of Serengeti District receives (in- and outpatient) modern health services.

Source: Fieldwork (2005)

- *Referral / Consultant Hospitals:*

being the highest level of hospital services of the nation, they receive referred patients from regional or district hospitals for those highly specialized health problems. Ideally, these are organised in zones to cater to people in their respective zones. They include the Muhimbili National Hospital in the Eastern Zone; Kilimanjaro Christian Medical Centre (KCMC) in the Northern Zone, Mbeya Hospital in the Southern Highlands, and Bugando Hospital in the Western Zone.

Over the last 50 years since having independence under the policy of health sector reforms, there has been an increase of modern health facilities as the Government of Tanzania has been encouraging the private sector, which includes religion-based organisations to take an active role in the delivery of modern health services. The actual number of health facilities and ownership in 2011 is indicated in Table 1.1.

Apart from the health facilities, the Tanzanian Ministry of Health and Social Welfare (MOHS) and the Minister's Office-Regional Administration and Local Government (PMORALG) are implementing different health-related projects and programmes, such as:

- *Reproductive and Child Health Services* (RCH) such as Immunisation, Antenatal Care, Family Planning, etc.;
- *Communicable Disease Control* such as Malaria, HIV/AIDS/STI, TB/Leprosy, Cholera, and Meningitis, etc.;
- *Non-Communicable Disease Control* such as: Diabetes, Mental Health, Neoplasm's, Diabetes, etc.;
- *Community Health Promotion/Disease Prevention* such as Advocacy and Communication, Water, Hygiene, Nutrition and Sanitation, Health Sector Reforms and Health Management Information Systems;
- *Health Professional Training*. There are several Universities and Colleges involved in medical training for various medical cadres. The aim of the Government of Tanzania is to train adequate, qualified and motivated medical personnel at all levels of the modern medical system. Medical Sociology, Medical Anthropology and Community Health are subjects covered briefly in the curricula of the medical, nursing and allied health training courses. So far, there are no schools of formal training in Traditional Medicine (TM) in Tanzania.

Table: 1.1 The Number and Ownership of Health Facilities of Tanzania

	Ownership		National Total
	Government	Private	
National Referral Hospital	5	0	5
Zonal Referral Hospitals	2	2	4
Regional Referral Hospitals	23	10	33
Regional Designated Hospitals	1	1	2
Council Hospitals	56	0	56
Designated Council Hospital	0	38	38
Health Centre	484	213	697
Dispensary	4160	2340	6500
Total	4731	2604	7335

Source: Ministry of Health and Social Welfare (2011)

1.3 Medical Pluralism and Integrated Medical System

1.3.1 The Notion of Medical Pluralism

'We cannot ignore the potential of Traditional Medicine (TM) in the race to achieve the Millennium Development Goals and renew primary health care for those who lacked access to it'. These were the challenging remarks of Sylvie Lucas (2009), President of the *United Nations Economic and Social Council*, while launching the first panel discussion of the 54-Member Body, prior to the 2009 *Annual Ministerial Review Theme* (UN 2009). In this context, the concept of medical pluralism is relevant as it refers to the existence of more than one medical system, or the simultaneous integration of traditional and modern medical systems in a country or region. Medical pluralism is not a new concept, as almost all societies are characterised by more than one type of medical system. Introduced by Leslie (1976), Dunn (1976) who extend – as mentioned above - the theoretical orientation of the plural medical configuration has a more dynamic interpretation of medical systems in relation to patterns of health behaviour of clients and patients. Later, Slikkerveer (1982) operationalised the concept of medical pluralism in his study of local, regional and national medical systems co-existing in the Horn of Africa.

In the contemporary world, people of all social strata are utilising either Traditional Medicine (TM) or Modern Medicine (MM) or both for maintaining their health and treating their illnesses, and as such are living and thriving in a pluralistic medical configuration. In 1977, the World Health Organisation Assembly focused its attention on the potential of vast human resources of Traditional Medicine (TM), as it passed the Resolution WHA 30.49, which urges the Member States to use these resources in their formal health services. In 1978, more emphasis has been put on the importance of the utilisation of medicinal plants in health care in developing countries (Resolution WHA 31.33). In the same year, the World Health Organization (WHO 1978) held its historical *International Conference on Primary Health Care* in Alma-Ata, U.S.S.R (5). In the Declaration, governments were urged to not only utilise traditional medical practitioners and incorporate proven traditional remedies into their national health care policies and regulations, but also encourage related research.

Because of the easy accessibility and affordability of Traditional Medicine (TM) in developing countries, the World Health Organization (2005), introduced the Traditional Medicine (TM) strategy whereby the goal for all countries is to reach full integration of Traditional Medicine (TM) into the mainstream medical system. During the presentation of the updated *Millennium Development Goals* at the United Nations Social Council Panel in New York in 2009, Rama Rao, Director of the World Intellectual Property Organization (WIPO) also underscored the importance of legal protection of Traditional Medicine (TM) through digital database libraries such as the Digital Data Library of India, which has about 30 million pages of scientific formulas derived from the substances of Traditional Medicine (TM). It has been shown that access to the information from the digital library is contributing to lower the cost of the production of Traditional Medicine (TM), *e.g.* medicines to treat Psoriasis (*Psoriasis Vulgaris*) which could now be produced at a cost of US \$50 per patient per year, as compared to US \$ 20,000 per patient through conventional medicines. As a consequence, several countries such Malaysia, Indonesia, Taiwan, Thailand, South Africa, Nigeria, Tanzania and countries of the Middle East are now considering establishing such digital libraries of indigenous knowledge in due course.

The recent call for full integration of Traditional Medicine (TM) by the World Health Organization (2009) aims its official recognition and incorporation into all areas of health care.

Specifically, Traditional Medicine (TM) should be included into the national health policies, and health care providers' products should be promoted and regulated accordingly. In this way, traditional medical services can become available at all types of private and public health facilities, where the costs can be reimbursed under formal health insurance. Moreover, education and training in Traditional Medicine (TM) should become readily available, while relevant research should be undertaken at colleges and universities.

However, before reaching the state of full integration, it is crucial to start with the collaboration between practitioners of the two traditional and modern medical systems as they are all approached and consulted by clients and patients. The present study focuses on various types of medical practitioners and investigates how different independent and intervening factors interact with the dependent factors of collaborative behaviours among the two types of traditional and modern medical practitioners in the Mara Region of Tanzania.

The World Health Organization (2010) has defined three types of medical systems to describe the degree in which Traditional Medicine (TM) is officially recognized either in (i) Integrated Systems; (ii) Inclusive Systems and (iii) Tolerant Systems as follows:

- i. An *Integrated system* is one in which Traditional Medicine (TM) is officially recognized and incorporated into all areas of health care provision. This means that Traditional Medicine (TM) is included in the relevant national health care policy of the country; that providers and products are registered and regulated; that traditional medical therapies are available at hospitals and clinics (both public and private); that treatment with Traditional Medicine (TM) is reimbursed under health insurance; that relevant research is undertaken; and that education in Traditional Medicine (TM) is available. Worldwide, only China, the Democratic People's Republic of Korea, the Republic of Korea and Vietnam can presently be considered to have attained such an integrative medical system;
- ii. An *Inclusive system* recognises Traditional Medicine (TM), but has not yet fully integrated it into all aspects of health care, be it in health care delivery, education and training, or regulation. Traditional Medicine (TM) might not be available at all health care levels, health insurance might not cover treatment with Traditional Medicine (TM), official education in Traditional Medicine (TM) might not be available at the university level, and regulation of providers and products of Traditional Medicine (TM) might be lacking or only be partial. Thus, work on policy, regulation, practice, health insurance coverage, research and education will be underway. Countries operating an inclusive system include developing countries such as Equatorial Guinea, Nigeria and Mali which have a national traditional medical policy, but little or no regulation of traditional medical products, as well as developed countries, such as Canada and the United Kingdom which do not offer significant university-level education in Traditional Medicine (TM), but which are making concerted efforts to ensure the quality and safety of Traditional Medicine (TM). Ultimately, countries operating an inclusive health sector can be expected to attain an integrative medical system. Tanzania therefore falls into this category, albeit with much work still to do;
- iii. A *Tolerant system* is one in which the national health care system is entirely based on Modern Medicine (MM), but where some traditional medical practices are just tolerated by law and no effort is made to integrate Traditional Medicine (TM) into the mainstream medical system.

1.3.2 The Concept of Interprofessional Collaboration

In the contemporary world, health planners and policy makers, supported by the World Health Organization (2011) are beginning to take an interest in the relationship between both medical systems and some of them are advocating full integration of traditional and modern medicine into an innovative 'main stream' medical system. Although Pillsbury (1982) alludes to significant cooperation between practitioners of ethnomedicine and biomedicine, Hardon *et al.* (2001) claim that in most societies the relationship between traditional and modern medical practitioners has been hostile. Nonetheless, the interesting discussion on the desirability and feasibility of such cooperation continues. As Pillsbury (1982) concludes, a more common view of the majority is that practitioners of both systems need to have mutual understanding and respect for each other for the benefit of improved health care.

The Government of Tanzania has steadily tried to facilitate cooperation between practitioners, especially by developing a policy of traditional and alternative medicine, offering for instance tailor-made training to Traditional Midwives. The establishment of the Muhimbili College of Traditional Medicine (TM), the special desk to coordinate and control traditional and alternative medicine practitioners and their products at the Ministry of Health and Social Welfare, are noteworthy examples of the movement towards a synthesis of both worlds due to the mutual benefits from each system for the improvement of the health and well-being of the Tanzanians. Furthermore, the Tanzanian Parliament enacted a Law which governs practitioners, services and products of traditional and alternative health services in the *Tanzanian Traditional and Alternative Medicine Act No. 23* (2002). The major question which most medical practitioners, researchers, planners, policy makers and managers ask is why the interprofessional collaboration between traditional and modern medical practitioners is so important. It is paramount to realize that entitlement of all citizens to freedom of association and heterogeneous beliefs are among the fundamental universal human rights, which include all Tanzanians. Thus, ethnomedical and biomedical practitioners will continue to be free to collaborate peacefully as heterodoxy and social heterogeneity are compatible as noted by Metertens (2000) in a compiled pharmaceutical report, entitled '*From Quackery to Credibility*'. The subject of why people or organizations collaborate is of great interest as it can also reveal the benefits of collaborative behaviours. Wood & Gray (1991) examine nine related research articles and arrive at six explanations for collaboration as follows:

- 1- *Resource dependence*: Resources are not sufficient, so people depend on each other (interdependence) by working together to get what is needed;
- 2 *Corporate social performance / Institutional economics*: All people have needs, so they have to work with each other in order to balance their needs;
- 3 *Strategic management / Social ecology*: People live in a world of opportunities where they need to capitalise on them together and in a world of threats which need to be reduced by pooling their resources together;
- 4 *Microeconomics*: People need to achieve efficiency by interacting with others in their area of competency;

- 5 *Institutional/Negotiated Order*: People live in the world with others and with existing different forces too, so they need to structure the way in which they relate in order to uphold the legitimacy of their existence;
- 6 *Political*: In order to stand for acceptable distribution of power and resources, people keep working with others in order to maintain their political structures.

Contrary to the claim by Hardon & Streefland (1993) that there exists a rather hostile relationship between traditional and modern medical practitioners in some societies, during the past decade, many observers have witnessed a growing respect and understanding among these representatives of the two medical systems. In fact, there is an on-going interest and discussion whether collaboration between the systems is desirable and possible. While some who are in favour of such collaboration agree on the mutual benefits of working together, others believe the differences in theoretical concepts of both systems render cooperation rare if not impossible. Furthermore, others hold the view that a closer relationship between the two may endanger the existence of Traditional Medicine (TM) as the modern system tends to dominate (Pillsbury 1982). Before focusing on the position of the practitioners concerned, collaboration has become inevitable, whether the practitioners are ready to collaborate or not. Such cooperation is due to the fact that clients and patients are increasingly continuing to combine the use of both the medicines and services from either traditional or modern medical practitioners or from both. Eventually, the decision to use the plural medical system is taken by the clients and patients.

This phenomenon is observed not only on the African Continent, but worldwide (Austin 1998). An integrated medical system further substantiates the credibility; legitimacy and appropriate practice in health care, specifically since all categories of practitioners have to be credentialed and licensed in order to offer their quality services to the population (Cohen *et al.* 2007).

The general situation analysis shows that traditional medical practitioners as well as modern medical practitioners work independently, and tend to ignore other possible services which their patients previously received from other health care providers. However, out of five studies found from *Cochrane Effective Practice and Organisation of Care Group Specialised Register* (2000-2007), *MEDLINE* (1950-2007), *CINAHL* (1982-2007) and the *Journal of Interprofessional Care* (1999-2007) a systematic review shows that interprofessional collaboration in health care can improve the health care processes and outcomes. In other words, effective working together of different health care professionals can improve the quality of the care they provide to the population (*cf.* Zwarenstein *et al.* 2009).

Nations around the world are using Traditional Medicine (TM), be it on the basis of medicinal plants, animal-product derivatives or other kinds of remedies and the indigenous knowledge and practice of Traditional Medicine (TM) has been handed down through many generations for millennia. Today, about 80% of the population in Africa and Asia continue to use Traditional Medicine (TM), especially in Primary Health Care. In general, people in developing countries are increasing their utilisation of Traditional Medicine (TM). Also, recent research by Abbott (2010) shows that up to 80% of the population in developing countries is using some form of Complementary and Alternative Medicine (CAM), including acupuncture and homeopathy. A recently conducted recent survey by Abbott *et al.* (2010) found that 74% of medical students in North America believe that Western medicine would benefit by integrating traditional or alternative therapies and practices.

The industry of Traditional Medicine (TM) forms a large business worldwide. In 2005, traditional medicines worth US \$14 billion were sold in China, while Brazil gained an income of US \$160 million from traditional therapies in 2007, and the global market registered more than US \$60 billion (*cf.* Shetty 2010).

1.3.3 Towards Integration of *Both Worlds* for Health Care Improvement

The initiative to develop integrated medicine emanates from a strong conviction that both systems share a common goal; the improvement of health of humankind. The combined efforts of representatives of the two systems will improve the overall strength of outputs and outcomes, well known in the Swahili proverb as: '*Umoja ni nguvu na Utengano ni udhaifu*' meaning: '*Where there is unity, there is strength and vice versa*'. Such an approach, in turn, will undoubtedly benefit the general population, offering clients and patients better access to comprehensive quality health care for a variety of complaints.

The positive returns from an integrative relationship between traditional and modern medicine in terms of human capital outweighs the possible negative attitudes between the two systems. By working in collaboration instead of in parallel, resources can be pooled together in order to achieve improved care for clients and patients. This form of improved health care is also reported by McNamara *et al.* (2011) in their study; '*Bridging the Gap: Interprofessional Collaboration Between Nurse Practitioner and Clinical Nurse Specialist*'. According to Reitan (1998) and Weiss (1981), the emphasis on collaboration also has value as a symbol of efficiency, social responsibility and rationality. Collaboration in social services reflects a history of reform efforts to bring about service integration (Hassett & Austin 1997; Neugeboren 1990).

A study by Rappaport (1977) in East Africa concurred with the growing consensus that African Traditional Medicine (TM) is significant enough to be incorporated into the respective national health care systems of the countries concerned. The study underscores the untapped supply of skilled traditional healers and their remedies vis-à-vis the limited supply of modern medical practitioners, especially in areas of psychiatry and psychology. In addition, Modern Medicine (MM) has not been able to provide an answer to all the health problems of the local population, rendering the use of Traditional Medicine (TM) necessary to complement, and in some cases, to substitute the utilisation of Modern Medicine (MM). London (1964) rightly states that: '*Values are the heart of the therapeutic process*'.

London (1964) also found that some of the matters in therapy are influenced by religion, politics, social and economic behaviour of individuals and society. Such interrelationships form an important reason why people continue to consult traditional practitioners in all aspects of health and healing amidst the highly promoted and heavily funded modern medical system. Biomedical professionals should bridge the cultural gap with their clients and patients in order to be able to offer their services with approaches and practices which are culturally appropriate. The fact that health or illnesses can be attributed to the peoples' cultural norms and values and to their worldviews, which affect the way in which they respond to illness, renders it necessary for modern medical practitioners to collaborate with traditional medical practitioners as they are both considered to be vital transmitters and caretakers of the African culture (*cf.* Swantz 1972; Lambo 1974; Rappaport 1977). Swantz (1972) who studied the Zaramo of Tanzania, concludes that traditional medical practitioners are the value keepers of their particular ethnic group; therefore people visit these practitioners more than for just being in search of how to manage their health problems, but also to revisit their traditional values and material cultures.

Furthermore, there is a general agreement that some health problems are medical system specific. In this respect, researchers such as Maclean (1971), Frank (1973), and Rappaport (1977) point to the need to refer patients with specific problems cases to the other medical system where the practitioners can provide services which are especially effective and efficient. Such referral among traditional and modern medical practitioners has also been documented by Warren (1974) on the previously mentioned the *Primary Health Training for Indigenous Healers Programme* (PRHETI) among the Techiman Bono in Ghana.

Integration of biomedicine with ethnomedicine implies more than a peaceful co-existence of the two systems. Interprofessional collaboration between these two systems can also be encouraged as there are already a number of practical examples of successful stories of collaboration between the two medical systems in different places around the globe, such as:

- The on-going informal integration especially in urban areas as Frank (1973) indicates were people visit modern medical practitioners to treat diseases (*what is wrong*) and then visit modern medical practitioners in order to determine the cause of the problem (*why one is afflicted*);
- The Nigerian Project at Aro where the blend of 'Medicine Men' and Modern Clinicians in the village context is documented by Lambo (1978);
- The Ugandan Program on *Traditional and Modern Medical practitioners Together Against AIDS* (THETA) with projects in over 20 Districts of Uganda. As a Non-Governmental Organization (NGO) with the motto '*African Solutions for African Challenges*', it fosters collaboration between Modern Medicine (MM) and Traditional Medicine (TM), especially on the control and care of HIV/AIDS patients. It focuses on building and supporting long-term, in-depth relationships between traditional and modern medical systems by working closely with the district leaderships, other civil society organisations, the Ministry of Health, the Uganda AIDS Commission, the Regional AIDS Training Network and universities, as described by Engle (1998). In this case, the traditional healer has been placed next to the modern doctor to provide consultation for patients with HIV or AIDS;
- The full integration of the Traditional Chinese Medicine (TCM), anchored in its *National Health Policy* and backed by strong public support alongside Modern Medicine (MM) where traditional practitioners also have the opportunity to be formally trained. Documented evidence of the efficacy of the use of Traditional Chinese Medicine (TCM) in different conditions such as renal failure, cardiovascular diseases, allergies, liver and kidney diseases, anaemia etc. is provided by Jingfeng (1988);
- The Tanga AIDS Working Group (TAWG) of Tanzania has also been successful in collaborating with traditional healers in HIV/AIDS care and treatment of related opportunistic diseases. A compiled report by Nyasigo (2009) documents that Dr. Mtullu, Project Manager of TAWG, reported that by 2009, a total of 4,500 patients with AIDS-related complications and opportunistic diseases had been treated by traditional healers and their herbal remedies. In addition, there are six treatment centres while the group continues with capacity building for traditional healers to be able to assess the patients' progress. The same report also shows that a substantial amount of public health experts who have been involved in this on-going debate, have concluded that despite the existing challenges which Traditional Medicine (TM) is facing, it is worthwhile to collaborate with them. Traditional

healers outnumber modern doctors by 100:1 or more, and they provide the most accessible and affordable services which complements the modern medical system. According to Dr. Mtullu (2009), '*Patients begin to improve between 1-4 weeks and the survival rate is 2-5 years, and some patients have 12 years now*'. Anderson & Kaleeba (2002) underscore on the same Tanga AIDS Working Group (TAWG) that more comparative research should be undertaken on this and similar collaborative projects between the two medical systems;

- The Australian case study described by Cohen (2004), collaboration is well cemented by the *Australian Integrative Medicine Association*, the *Australian Medical Association*, and the *MedicarePlus Package*, a government organisation known also as the *Royal Australian College of General Practitioners*. Such collaboration is the result of the realisation that the dangers of non-integrated health care include delaying or depriving patients of safe and effective health management.

It is generally recognised that in the present era, Modern Medicine (MM) has neither given all the answers nor solutions to human suffering, diseases and health. Evidence shows that there are still a number of diseases for which no cure or vaccines are available, despite continued scientific research and development. Effective treatment for these diseases may be found eventually, but at the same time, 'new' diseases are emerging which are not known by Modern Medicine (MM).

It is also worthwhile to mention the increasing criticism of the careless use of modern medicines, surgical procedures and health facilities, which account for an enormous amount of *Iatrogenesis* and *Nosocomial* infections, the so-called 'hospital-acquired infections'. According to Weingart *et al.* (2000), it is estimated that as many as 98,000 deaths per year in the United States are due to *Iatrogenesis*. Thus the incorporation of Traditional Medicine (TM) is now regarded by many professionals as complementary, alternative and in some cases substitutional to the existing mainstream system of Modern Medicine (MM).

1.4 Aim, Objectives and Structure of the Study

1.4.1 Significance of the Study

The undertaking of the present study is not only worthwhile in its theoretical and methodological approaches, but also in its applied-oriented strategies both in Tanzania and in other developing countries with similar challenges in a pluralistic medical configuration, as substantiated by the following considerations:

- The study is consistent with the *Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property* (GSPOA) to foster innovation and improve access to health services and products for people in developing countries through multiple strategies including the building of collaborative networks in health care (WHA 2008);
- The research encompasses multiple related subjects such as Health Policy, Medical Systems, Human Resources for Health, Private-Public Mix, Traditional Medicine (TM), and Modern Medicine (MM). All these subjects are also regarded as priority research areas in the Ministry of Health and Social Welfare of Tanzania (MoHSW), *Health Sector Strategic Plan III (July 2009 – June 2015)*, which aims at developing policies on human resources for health as well as to maximise effective utilisation of human resources for health (Strategy 4)

and ensuring conducive policy and legal environment for operationalisation of the Public – Private Partnership (Strategy 6);

- The study is also in line with the National Institute for Medical Research of Tanzania (NIMR) *Strategic plan III (2008 – 2013)* whose objective is to carry ‘*research for better health*’. Its strategic objectives include: enhancing collaboration with existing private and public health providers (Strategy 1.3); research on traditional and alternative medicine (Strategy 2.7); research on socio-cultural and determinants of health (Strategy 2.9).
- The study establishes a new path towards a true equitable response, both formal and informal, to the urgent *Call for Health Sector Reforms* to use the available human resources which can complement the modern medical system in an efficient way;
- The research considers the indisputable positive and negative effects and impacts of the continued existence of Traditional Birth Attendants, Herbalists and Circumcisers in the Tanzanian communities for both people’s health status and its complementarities to the delivery of modern health care services;
- The study provides an exploration on the role of traditional circumcisers, especially for females within the context of the current discussion of female genital mutilation, which cannot be simply and exclusively embraced under the cultural relativist view in anthropology. Their services are carefully scrutinised and analysed under powerful lenses of universalism of fundamental human rights, gender analysis and medical legal standards;
- The study’s findings, analyses, recommendations and their implementation are expected to serve as a stepping-stone and provocation to government health planners, policy makers and health institutions towards new insights, constructive discussions, and plans to incorporate the often forgotten and neglected, but essential traditional medical system and its functionaries in the prevailing Health Sector Reform strategies.
- The study adds important fieldwork-based data to the few literature resources available on the subject. The research constitutes a *de novo* project within the context of the present Tanzanian Health Sector Reform. Unlike other studies, the research focuses not primarily on the popular employment creation and income generating policies, but more on the overall health policy planning and implementation of the country (6);
- The study cuts across other multidisciplinary issues such as gender analysis, labour participation in the informal sector, the primacy of ethical perspectives, religious virtues in health care choices, environmental care and changes in social structures taking into consideration that any social intervention in the health sector will have secondary effects of marginal increments or decrements of allocated resources. By consequence, a response to the need for a sector-wide approach will also address the related problems of resource redistribution.

1.4.2 General Aim and Specific Objectives

As in many other African countries, people in Tanzania are living in a configuration of medical pluralism, in which both traditional and modern medical practitioners continue to offer a variety of health services to the population.

The *general aim* of this study is to document, describe, and analyse the major factors which interact with the patterns of collaboration behaviour among traditional and modern medical practitioners in the Mara Region of Tanzania. Both qualitative and quantitative research methodologies are implemented in order to analyse the different categories of factors both at the individual and system levels which interact in such interprofessional collaboration between practitioners of the two medical systems.

Some insight into the challenges and realities of Traditional Medicine (TM) in practice are also studied and highlighted with a view to underscore the promising prospects of Tanzania on the road to the development of a fully integrated health care system. In order to realise this general aim, seven specific objectives have been formulated as follows:

Firstly, to discuss the theoretical orientation on interprofessional collaboration among traditional and modern medical practitioners as a prerequisite towards achieving integrated health care delivery in a medical pluralistic configuration as a major component of the health sector reforms;

Secondary, to provide a description of the Mara Region of Tanzania as the research setting in terms of its sociography, livelihood patterns and cultural attributes to health of the inhabitants;

Thirdly, to describe the Tanzanian health sector reforms and challenges facing the contemporary Tanzanian traditional medical system;

Fourthly, to describe the selected analytical model of interprofessional collaboration behaviour and its components encompassing predisposing, enabling and intervening variables in relation to the dependent variables of patterns of interprofessional collaboration behaviour among traditional and modern medical practitioners in the research area;

Fifthly, to provide an indigenous classification of medicinal plants and herbs commonly used by the local population in the Mara Region of Tanzania;

Sixthly, to analyse collected data and present the results of the stepwise analysis, with an indication of the quantitative strengths of the significant correlations between the blocks of factors interacting with each other in relation to the patterns of interprofessional collaborative behaviours between modern and traditional medical practitioners of Mara Region; and

Seventhly, to present the study's theoretical, methodological and policy implications, and formulate recommendations for the integration of traditional and modern medicine into a integrated medical system in Tanzania for improved accessible, affordable and humane health care services for the entire population.

1.4.3 Structure and Organisation of the Study

The overall study and its results are presented in eight chapters, the contents of which can be summarised as follows:

Chapter I, as on the Introduction, encompasses the introductory remarks on culture, health, and medical pluralism, followed by highlighting the concept of interprofessional collaboration within the context of the envisaged integration of ethno- and biomedical systems. It indicates the general aim and specific objectives of the study; and the structure of the dissertation. The Introduction heralds the *leitmotif* of all chapters to contribute to the achievement of *afya jumuishi*- the Swahili concept of *fully integrated health care* in Tanzania.

Chapter II presents the theoretical orientation of this study, and begins with the description of concepts encompassing the recognition of components of culture which affect human health. Thereafter, the current shift of the paradigm in health policy and management is indicated, in which the importance of Ethnobotanical Knowledge Systems (EKS) is shown for effective health promotion and disease treatment. Furthermore, the existing theories about successful interprofessional collaboration are detailed. In addition, the conceptualisation of interprofessional collaboration is presented and elaborated. This Chapter also provides an overview of the way in which indigenous African societies have determined the role and management of Traditional Medicine (TM).

Chapter III outlines in detail the research methodology and selected analytical model which includes the applied-oriented research approach, the relevant research questions, and the methods and techniques of the stepwise analysis, implemented in Chapter VII. The chapter underscores the importance of the use of the *Leiden Ethnosystems Approach* with its basic concepts of *Participant's View (PV)*, *Field of Ethnological Study (FES)* and *the Historical Dimension (HD)*. The operationalisation of the concept of *interprofessional collaboration*, used in the analytical model is shown to follow the definition by the Centre for Advancement of Collaborative Strategies in Health (2003). The operationalisation of relevant *factors* through the deduction of *concepts* through *variables* and *indicators* to *categories* is also explained, leading up to the design of the questionnaires. Finally, the chapter introduces the complicated statistical analyses including the bivariate, multivariate (OVERALS) and multiple regression analysis.

Chapter IV describes the research setting of the Mara Region in Tanzania as a country of diverse natural resources. The chapter presents the geography, history, economy, socio-cultural and political structure. Also, the sample population and the profiles of both the traditional and modern medical practitioners are also described.

Chapter V prescribes the general livelihood patterns in Tanzania as well as the specific community life of the inhabitants of the Mara Region. It presents the existing socio-cultural background of the people in the Mara Region. The chapter also elaborates on the major challenges facing Traditional Medicine (TM) in the region.

Chapter VI seeks to explain health and healing in the Mara Region. It shows the health indicators in the country, as well as the general health status and health services in both Tanzania and the Mara Region. The development and changes in the Tanzanian medical systems is indicated over time, covering the pre-colonial, colonial and post-colonial eras. The major challenges in health care development are also presented as the focal point in the Tanzanian long-term plan and as part of the health sector reforms. The chapter further explains the pluralistic medical configuration in the Mara Region, including traditional beliefs on illness causation and remedies; the use of both Traditional Medicine (TM) and Modern Medicine (MM) and the first activities towards integration of both medical systems.

Chapter VII shows the major qualitative and quantitative research findings resulting from the statistical analyses. Similarly, an interpretation is presented of the significant correlations and interactions among variables in relation to interprofessional collaboration behaviour of traditional and modern medical practitioners, emerging from the Bivariate, Multivariate and Multiple Regression analyses.

Chapter VIII concludes with the description of the theoretical and methodological implications as well as the practical policy-based recommendations towards effective and efficient health sector reforms. The practical recommendations are strategised towards health policy makers, medical practitioners, trainers, researchers in health care, religious leaders, non-governmental organisations, local and central government agencies with a view to enhance interprofessional collaboration among different medical practitioners to achieve *afya jumuishi* in Tanzania.

Notes

1. This is one of the qualitative observed results through a *participant view* during fieldwork by the researcher who has also worked in the modern medical system in Tanzania.
2. A lecture presented by Prof. Dr. L.J. Slikkerveer at Leiden University, The Netherlands in March 2001 on the topic: *The Socio-Cultural Context of Health and Disease* and sub-topic: *Integrated Medical Systems*.
3. A report presented in 1974 by Hon. Marc Lalonde – the then Minister of National Health & Welfare for Canada.
4. The census results were officially announced by the President of the United Republic of Tanzania, H.E J. M. Kikwete during the 2012 Census preliminary output inaugural ceremony in Dar es salaam on December 31st, 2012. His speech is also found at the Tanzania National Bureau of Statistics: http://www.nbs.go.tz/sensa2012/index.php?option=com_content&view=article&id=29:hotuba-ya-mheshimiwa-jakaya-mrisho-kikwete-rais-wa-jamhuri-ya-muungano-wa-tanzania-kwenye-uzinduzi-wa-matokeo-ya-awali-ya-sensa-ya-watu-na-makazi-ya-mwaka-2012-viwanja-vya-mnazi-mmoja-dar-es-salaam-tarehe-31-desemba-2012&catid=1:news&Itemid=3 Surfed on March 31st, 2013.
5. The International Conference, which introduced Primary Health Care worldwide. Documented by World Health Organization (1978) *Primary Health Care. Report of the International Conference on Primary Health Care*, Alma Ata, USSR, 6-12 September 1978, 'Health for All' Series, No. 1. World Health Organization, Geneva 1988.
6. Most studies have been conducted since the early 1970s on formalising the informal sector as marginalised small industries for business ventures as advocated by the International Labour Organisation (ILO), mainly focusing on employment opportunities creation.