**UNIVERSITY OF GHANA**
**COLLEGE OF HUMANITIES**

# THE CENTRE FOR PLANT MEDICINE RESEARCH AND THE DYNAMICS OF TRADITIONAL MEDICINE IN GHANA

**BY**
**DIANA AMONI NTEWUSU**
**(ID. NO. 10358057)**

**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF PHD IN SOCIOLOGY**

**DEPARTMENT OF SOCIOLOGY**
**OCTOBER 2020**

# DECLARATION

I hereby declare that this thesis is the result of my research work, carried out in the Department of Sociology, University of Ghana, under the supervision of Prof. Kodjo Senah and Prof. Steve Tonah. As far as I am aware, this thesis has not been submitted anywhere for a certificate or a degree. All references cited in this work have been duly acknowledged. I take sole responsibility for all likely misinterpretations of data arising from the study.

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DIANA AMONI NTEWUSU
(CANDIDATE)

DATE: 13th October 2020

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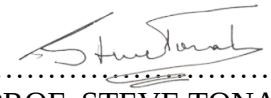
PROF. KODJO SENAH
(PRINCIPAL SUPERVISOR)

DATE: 13th October 2021



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PROF. STEVE TONAH
(CO-SUPERVISOR)

DATE: 13th October 2021

# ABSTRACT

With the increasing demand for evidence-based practise, quality research is crucial to inform decision-making in traditional medicine practices. Therefore, there has been a growing corpus of knowledge on the establishment and functions of traditional medicine research Centres across the globe. However, the available scholarship has concentrated more on Asia, and other parts of the world, than on Africa, including Ghana. This study, therefore, set out to examine how the Centre for Plant Medicine Research, located at Mampong - Akuapem in the Eastern Region of Ghana, has contributed to the national trajectory of traditional medicine development and practice. In furtherance of the main objective, the study specifically focused on: providing an assessment of the origin, organisational structure, management, and functions/ activities of the Centre and how these have changed over time; examining the changing state policies on traditional medicine in Ghana and their implication for the mandate of the Centre; and interrogating the extent to which the Centre has influenced the development and practice of traditional medicine in Ghana. The qualitative method of social research was used with constructionist grounded theory driving data collection and analysis. Through purposive and theoretical sampling methods, participants were drawn from the Centre, clients of traditional medicine, practitioners of traditional medicine, Herbal Medicine Department at KNUST, Traditional and Alternative Medicine Directorate (TAM-D), Traditional Medicine Practice Council (TMPC), Food and Drugs Authority (FDA), and people of Mampong. The theory of social change underpinned the study as it dealt with transformations in traditional medicine. The study has shown that the development of traditional medicine in Ghana is intertwined with the Centre's establishment and evolution. As a state-owned institution, all the policies on traditional medicine in the country have found expression through its activities. From

financing plant medicine research to the formulation of policies for traditional medicine development, the Centre has been actively involved and seen as driving the change.

Consequently, its activities have led to significant transformations in the mode of providing traditional medicine in Ghana. Links with institutions and agencies such as the MOH, TAM-D, TMPC, FDA, WHO, and the Ghana Federation of Traditional Medicine Practitioners, among others, enabled the Centre to provide services to the general public. It has also led to standardisation, training of practitioners, and many more, albeit criticisms that the 'over scientification' in the practice of traditional medicine initiated by the Centre tends to marginalise the involvement of some healers. As the main game-changer in the industry, the Centre itself has gone through the change. It has evolved from learner to teacher in applying traditional medical knowledge in the context of modern science and technology (from 'obi-kyerɛ to kyerɛ-obi'). Some practitioners have also transformed their practices through the Centre's influence by adopting modern scientific processes in line with biomedical practice and technology. However, the transformation has not occurred uniformly across the country. Embedded in the change are continuities with the distant past. Based on this, the study duly categorised practitioners in Ghana into three as *transformers, semi-transformers* and *non-transformed.* Participants mentioned how healers in various communities, including some who have worked at the Centre, have contributed to research and given out recipes for product formulation without receiving any credit or recognition from the Centre/scientists. This development has engendered mixed feelings among practitioners leading to tensions and conflicts between the Centre and stakeholders. The social inequality between the two groups, aggravated by the over-concentration of scientific product development processes, fuels these tensions and conflicts. The fact that scientific achievements remain the exclusive preserve of scientists despite the evident contributions made by healers

perpetuates conflicts between the two groups. This has adversely affected collaborations between the Centre, traditional healers, and communities. These issues show how the Centre reflects the struggle between healing knowledge in herbal lore and Western hegemonic knowledge in health care delivery.

# DEDICATION

I dedicate this thesis to my husband, Dr Samuel A. Ntewusu, who gave me so much support and love in ways that cannot all be listed here; my lovely children, Sammy, King, and Boaresa; my mother, Madam Alice Amanki Attah, for all her love; and to my late foster father, Catechist Clovis K. Siesegh, who gave me his blessing to begin this PhD but unfortunately did not live to see me complete the course. Eternal life, grant him Oh Lord!

# ACKNOWLEDGEMENTS

The successful completion of this thesis would have been difficult if not impossible without the goodwill and support of many people to whom I owe gratitude. My sincere gratitude goes to my supervisors, Professors Kodjo Senah and Steve Tonah, for their academic insights and guidance. Their effort deserves many commendations. All faculty members of the Department of Sociology, University of Ghana, deserve mention for their critical comments during seminars, which helped shape this thesis. Special thanks go to the current and immediate past Heads of Department, Prof. Akosua Keseboa Darkwah, and Prof. (Rev. Fr.) Michael Okyerefo, respectively for their support in diverse ways throughout my study. Their faith in me spurred me on.

I am equally indebted to the management and staff of the Centre for Plant Medicine Research, Mampong - Akuapem, for all the assistance and cooperation received during the period of data collection. In this regard, I am incredibly grateful to the former Executive Director, Prof. Augustine Ocloo, and the Deputy Director, Dr Alfred Appiah. I am also very grateful for the timely financial assistance given to me during my fieldwork. I am also grateful to the BANGA-Africa Project for awarding me a Thesis Completion Grant.

I cannot forget the support of the School of Pharmacy, especially Prof. Emeritus Kwame Sarpong of the Department of Pharmacognosy, Prof. Kufuor, the Head and faculty members of the Department of Herbal Medicine, KNUST. Also, special thanks go to Mr Kwarteng and his team at the Traditional Medicine Unit of the Food and Drugs Authority for their exceptional assistance and support. The Registrar of the Traditional Medicine Practice Council and the Director, Traditional and Alternative Medicine Directorate, Ministry of Health, and Nana Obiri, the General Secretary of GHAFTRAM, gratitude equally goes to you all.

I am eternally indebted to the Chiefs and people of the Mampong Traditional area for opening their doors to me and providing vital information that helped achieve the objective of this study. My thanks also go to the family of the late Dr Oku Ampofo, especially Papa Kwame, for all the information that was made available to me. To my community liaison, Mr Ayisi Krow, and all my study participants: practitioners of traditional medicine, clients of traditional medicine, GN Pharmacy, Ritz Pharmabay Pharmacy, and Dependable Herbal, I say God bless you for sharing your experiences with me without which some vital data would have been missing from this study. To Margaret Asenso- Agyemang and Ismael Boampong Osei, thank you for your support in data transcription.

My PhD colleagues, Jane Aku Geraldo, Mavis Akuffobea, and Esther Asenso-Agyemang, have been a source of great support throughout this study. Esther, your invaluable support and friendship will never be forgotten. To my family, I say thank you for all the encouragement, especially my' most Expensive' brother, Rev. Fr. Remegious Siesegh, for your priestly role. Exceptionally, I appreciate my mother, Madam Alice Amanki Attah, for being there for me in all the instances I needed her support. Thank you, Mma!

Finally, my heartfelt gratitude goes to my dearest husband for anchoring, inspiring, and supporting me throughout this journey. To my lovely children, Boaresa, King, and Sammy, thanks for all the sacrifices you made and the understanding you exhibited when this study took my time and attention.

Above all, the Lord, God Almighty, takes all the glory for how far I have come.

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# LIST OF ABBREVIATIONS

CAM ---------- Complementary and Alternative Medicine

CSIR----------Centre for Scientific and Industrial Research

ECH ---------- Ethics Committee for the Humanities

EML ----------Essential Medicines List

ERCC ----------Eastern Regional Coordinating Council

FDA ----------Food and Drugs Authority

GHAFTRAM ---------- Ghana Federation of Traditional Medicine Practitioners

GMP---------- Good Manufacturing Practices

GPTHA ----------Ghana Psychic and Traditional Healing (Healers') Association

ICMM----------Institute of Chinese Materia Medica

IMF----------International Monetary Fund

IPH ----------Indigenous Priest Healers

JICA----------Japanese International Cooperation Agency

KNUST ----------Kwame Nkrumah University of Science and Technology

MOH ---------- Ministry of Health

NRC ---------- National Redemption Council

NRCD----------National Redemption Council Decree

OPD ----------Out Patient Department

PHC ----------Primary Health Care

SAH ---------- Society of African Herbalists

SAP---------- Structural Adjustment Programme

SDG ---------- Sustainable Development Goals

TAM-D ---------- Traditional and Alternative Medicine Directorate

TBA ---------- Traditional Birth Attendants

TCM---------- Traditional Chinese Medicine

TMP ---------- Traditional Medicine Practitioners

TMPC ---------- Traditional Medicine Practice Council

TSS ---------- Theory of Social Selection

UNDP ---------- United Nations Development Project

UNICEF ----------United Nations Children's Education Fund

UST---------- University of Science and Technology

WAHO---------- West African Health Organization

WHO ----------World Health Organization

WIPO----------World Intellectual Property Organization

WWF…….....World-Wide Fund for Nature

# CHAPTER ONE

# THE WORLD IN SEARCH OF HEALTH

## 1.1 Background

This study is about the Centre for Plant Medicine Research (hereafter referred to as the 'Centre') located at Mampong – Akuapem in the Eastern Region of Ghana and its role in the development and practice of traditional medicine in Ghana. It has the mandate to conduct and promote scientific research into plant medicine and ensure the purity of drugs prepared from plants (Droney, 2014). Therefore, since the Alma-Ata Declaration of 1978, which identified primary health care (PHC) as key in attaining health for all, the Centre's mandate increasingly became necessary, as it fed perfectly into that plan. To this effect, the institution, since its inception, has championed the cause of research into plant medicine in Ghana and beyond (Anyinam, 1989; Asante & Avornyo, 2013a).

Consequently, the main aim of the thesis is to explore the contribution of the Centre to the development and practice of traditional medicine in Ghana. It focuses on factors that influenced the Centre's establishment and reveals the role played by the founder, Dr Edward Francis Kwaku Oku Ampofo, in the establishment of the Centre and its location at Mampong. Also, it facilitates an understanding of the various postcolonial governments' role through policy formulation, including the establishment of the Centre, in institutionalising the practice of traditional medicine and the transformations therein. Policy formulation in this area has partly been through the establishment of regulatory institutions – Food and Drugs Authority (FDA) and the Traditional Medicine Practice Council (TMPC), not only to enforce the infusion of modern scientific methods into the practice of traditional medicine but also to ensure a well-organised practitioner base in the country's traditional medicine landscape. It also clarifies the extent to which the Centre's influence

requires responses from three more critical stakeholders: traditional medicine practitioners (TMP), clients of traditional medicine (CTM), and the Mampong community where the Centre is located. Focusing on the Centre in this study had the unique advantage of offering insights into how and why traditional knowledge-based alternative healing systems are utilised in Ghana. The Centre combines traditional healing knowledge with biomedical practices, which differ significantly from the culturally defined traditional practices.

A study of the development trajectory of traditional medicine is pertinent as Ghana and the world continue to search for new medicines in response to the new health problems plaguing humanity today (Maller, Townsend, Pryor, Brown, & St Leger, 2006). As a result of the struggle to maintain good health, the global health context has changed considerably (Adler-Waxman, 2017; Teuscher et al., 2015). States are spending more on health as populations age with the emergence of novel and expensive medicines and health technologies and demand for better health as people's income grows (Hajat & Stein, 2018; Maller et al., 2006).

The burden of chronic diseases continues to increase, as three in five deaths globally can be attributed mainly to cardiovascular disease, cancer, lung diseases, and diabetes (Hajat & Stein, 2018). Evidence suggests that mental health disorders account for ten per cent of the global burden of disease (Maller et al., 2006). The increasing public health burden resulting from chronic diseases falls disproportionately on low-income countries, making prevention and management a global priority (Adler-Waxman, 2017; Hajat & Stein, 2018; Maller et al., 2006). Consequently, the United Nations convened a high-level meeting in 2011, which called for an all-inclusive and multi-stakeholder action to prevent and control chronic diseases (Hajat & Stein, 2018).

Meanwhile, health-related Sustainable Development Goals continue to mount pressure on governments to expand health systems to achieve the stated targets. For example, among other

things, goal three (good health and well-being) targets universal health coverage with access to quality essential health care services and access to safe, effective, quality, and affordable essential medicines by the year 2030 (UNDP, 2020). In this context, the various interventions the World Health Organization (WHO) put into achieving universal health coverage are critical. By its structure, mandate, and authority, WHO has worked considerably in developing policies for member states to implement since it incorporated traditional medicine in its programme in 1976 (Craig, 2011; Evans-Anfom, 1984; Feng, Han, Lai, Wang, & Liu, 2017).

The 1978 Alma Ata Declaration on Primary Health Care (PHC) expressed the need for urgent action by all governments, health and development workers, and the world community to protect and promote all the world's people (Isola, 2013). In recognition of the inadequacies in the conventional health system, the principles of Alma Ata, among other things, proposed collaboration among a wide range of health practitioners, including physicians, community health workers, and traditional medicine practitioners, to facilitate the achievement of health for all by the year 2000 (Bernatas, 2010).

WHO's Traditional Medicine Strategy (2002-2005) also mandates all member states to develop local legislation and regulatory models for traditional medicines' production and quality assurance (Craig, 2011). Subsequently, the 2008 Beijing Declaration on traditional medicine linked the unmet goals of the Alma Ata Declaration to the effective utilisation of traditional medicine. It advocated for its respect, preservation, and promotion (Craig, 2011). However, WHO also notes that traditional medicine could present unique public health challenges if not used correctly. Inappropriate use or practices may lead to adverse or dangerous effects, and as such, the Organization called for research to ascertain the efficacy and safety of traditional medications (Abbott, 2014; Craig, 2011).

Similarly, it has been argued that reliance on traditional medicine does not only cause delays in biomedical interventions, leading to undesirable consequences on health but also poses serious risks related to drug-herb interactions and quality control issues (Abbott, 2014). These and many other narratives have characterised the use of traditional medicine worldwide. As a result, traditional medicine has become a site for contradictions, tensions, and power struggles in both definition and practice leading to its subjection to political domination, conflict, and resistance (Osseo-Asare, 2014; Rasmussen, 1998; Wane, 2011).

Furthermore, WHO has made several other vital declarations to get traditional medical practices well accepted and integrated into mainstream health care by member states. Some declarations emanated from concerns for sustainable use of medicinal plants around the globe, even though the collection, use, and trade of these plants can be as old as humankind (Wolfgang, 2006). Broadly, the knowledge of medicinal plant use has been part of oral traditions for many centuries and passed on from generation to generation without much attention paid to the sustainable use of this all-important resource (Ayensu, 1983; Wolfgang, 2006). The demand for medicinal plants continues to increase, with the increase in the numbers of populations, for the preparation of natural medical remedies in both traditional and newly developed medicinal systems (Attisso, 1983; Ayensu, 1983; Wolfgang, 2006). The strain put on natural resources, as a result, has led to concern over the long-term availability of regenerative natural medicinal plants (Wolfgang, 2006).

The world's forests are depleted due to over-exploitation, but some perceive no harm in this mismanagement of the environment (Attisso, 1983; Ayensu, 1983). In this regard, the main concern for stakeholders has been that the mismanagement of the world's vegetative cover can deprive humanity of important medicinal plants that could cure many diseases that continue to confront the world.

Recent dynamics in the worldwide utilisation of traditional medicine or complementary and alternative medicines (CAM) indicate an estimated annual growth rate of 5 per cent to 15 per cent with a global market value of US$ 60 billion (Sarpong, Botchie, & Dey, 2018). In the United States of America (USA), the utilisation of CAM has seen exponential growth since the passage of the Dietary Supplement, Health and Education Act in 1994 by Congress (Cockerham, 2007; Davis, Martin, Coulter, & Weeks, 2013; Nahin, Barnes, & Stussman, 2016). It is estimated that individuals aged four years and above in the USA spend $30.2 billion out-of-pocket on CAM annually (Nahin et al., 2016). It is also revealed that 70 per cent to 90 per cent of people in Canada and Germany, respectively, have accessed health care at least once from natural remedies at some point in their life (Mpinga et al., 2013). Also, it is reported that traditional medicine provides PHC for about 75 per cent to 90 per cent of populations in developing countries (Banerjee & Mitra, 2012).

Given the current dynamics, many authors (Harilal, 2009; Hiegel, 2013; Isola, 2013) suggest a period of renaissance in utilising traditional forms of medicine, making them an integral part of health systems around the globe. Nonetheless, biomedicine has primarily remained the mainstream health care system since its introduction in most parts of the world (Harilal, 2009; Hiegel, 2013; Isola, 2013). Thus, traditional systems of medicine have increased the cost-effective delivery of health care and have provided alternatives to people in many parts of the world, as indicated in the statistics shown above (Anquandah, 1997; Dove, 2010; Roux-Kemp, 2010). Research has revealed that the reasons attributed to the wide use of traditional modes of health care are numerous and varied. These include dissatisfaction among patients because biomedicine has limited utility in psychosomatic conditions, numerous side-effects, high reliance on technology, and impersonal administration (Banerjee & Mitra, 2012; Cockerham, 2007; Twumasi, 2005).

Besides, it is suggested that in most societies, the non-availability and unaffordability of biomedical care have made people in low-income countries stick to the use of traditional medicine over the years (Falodun, 2010; E.K. Mpinga et al., 2013; Pesek, Helton, & Nair, 2006). Evidence also shows that individuals resort to traditional medicine to avoid a haggle with health insurance providers in biomedical care (Cockerham, 2007).

Again, the widespread use of traditional medicines reveals less authority and more participation in administration, giving patients personal control in the health encounter (Cockerham, 2007). These traditional modes of medical care are more compatible with the spiritual and philosophic worldviews of health and disease specific to various cultures (Aziato & Antwi, 2016; Banerjee & Mitra, 2012; Cockerham, 2007; E.K. Mpinga et al., 2013). More so, information technology has facilitated traditional medicine since various modes of healing are available on the internet for careful analysis to inform good decisions (Aziato & Antwi, 2016; Banerjee & Mitra, 2012; Cockerham, 2007; E.K. Mpinga et al., 2013).

Consequently, the traditional pharmaceutical industry has seen growth in the cultivation, preparation, and marketing of products (Evans-Anfom, 1984; Falodun, 2010). This development has led to a transformation in the formulation, production, packaging, mode of provision, administration and utilisation of traditional medicines (Adusei-Mensah & Inkum, 2015; Anquandah, 1997; Dove, 2010; Evans-Anfom, 1984). The reasons for these transformations and the Centre's role in the Ghanaian context are the stimulus for this study.

## 1.2 Problem Statement

There is a growing body of rich and varied literature on traditional medicine across the globe. These have centred on the relevance of traditional medicine (Isola, 2013; Senah, Adusei, & Akor, 2001); the relationship between traditional medicine and biomedicine (Twumasi, 2005); scientific capacity building on traditional medicine (Droney, 2017); and integration of traditional medicine into mainstream health care (Agyei-Baffour, Kudolo, Quansah, & Boateng, 2017). Some have also focused on clinical (Falodun, 2010), ethical (Chary & Sargent, 2016), economic and legal issues (Osseo-Asare, 2014) in the practice of traditional modes of medical care.

Globally there has also been a corpus of knowledge on the establishment and functions of traditional medicine research Centres. The rise into prominence of these institutions has resulted from WHO's global governance regimes, which emphasise science to change the phase of traditional medicine practice worldwide (Craig, 2011; Evans-Anfom, 1984; Feng et al., 2017). Consequently, these centres have acted as the interplay between modern techno-scientific processes and tradition, providing the platform from which traditional medicine is "translated into scientific language through the mobilisation of laboratory practices, and how the experimental results are represented" (Kim, 2007, p. 856).

The encounter between traditional medicine and science is epitomised by functions and activities of centres, primarily mandated by states, as shown in Ghana's case. As Kim (2007, p.857) aptly argues, the reconstruction of traditional medicine in scientific terms "encompasses multiple levels of conceptual, material, and institutional transformation". However, scholarship on traditional medicine centres has concentrated more on Asia, and other parts of the world, than on Africa, including Ghana (Abraham, 2009; Feng et al., 2017). For example, Feng et al. (2017) conducted a study to find out the research capacity of clinical investigators at Traditional Chinese Medicine

(TCM) centres in China. They concluded that capacity building and investment in research are essential for developing an evidence-based approach to TCM practice. Also, Abraham (2009) focused on the contemporary institutional practice of Ayurveda with its transformations in India. She examined the modes of its reproduction and recreation as medicine and culture at the same time in Cosmopolitan Mumbai. She concluded that institutionalising and professionalising the practice had not been able to erase its cultural significance.

Locally, the few studies that have paid attention to Ghana's only traditional medicine centre have not done so broadly. For example, Osseo-Asare (2014) writes on a comparative history of drug discovery from plants across different regions of Africa. She uses the case of *Cryptolepis sanguinolenta* to show how the Centre, its founder, and other scientists from Ghana and abroad and traditional healers have been involved in contestations over who takes credit for drug discovery based on the active ingredient from this plant. It is a Ghanaian medicinal plant locally known in Akan as 'nibima', with activity against the malaria parasite. She used the historical background of the Centre to trace the genesis and developments of drug discovery research with Ghanaian medicinal plants.

Droney (2014) discusses the Centre within Africa as a site of lack and absence of the modernity created by the scientific enterprise represented by the Centre. For him, the expression of negative interpretation through a constant reference to lack and absence by students, researchers, and technicians who work in Ghana's laboratories reiterate the desire for the promises of modernisation, linking the Centre, as a scientific institution, to a national achievement that reflects the status of Africa as a whole. Again, Droney (2017) indicates that scientific capacity building in herbal medicine is essential, and the role the Centre is playing is relevant in this regard. However, he indicates that the tools for scientific capacity building are all from the Western context and

power-laden, thereby imbued with the capacity to compromise the authenticity and autonomy of traditional practices (Droney, 2017).

These studies are specific in outlook as far as the activities of the Centre are concerned and did not devote attention to the Centre's role in institutionalising and transforming the phase of traditional medical practice in the country. This study seeks to extend scholarship by examining the Centre's contribution to dynamics in traditional medicine practice in the context of science and technology. The study offers a unique opportunity for a perspective from Ghana to be added to the growing body of knowledge on the activities of state-mandated institutions towards the development of traditional medicine.

### 1.3 Objectives and Research Questions

The study's general objective was to examine the contribution of the Centre to the development and practice of traditional medicine in Ghana.

Specific Objectives

In furtherance of the main objective, the study specifically focused on the following:

1. Provide an assessment of the origin (creation, evolution, and development), organisational structure, management, and functions/ activities of the Centre and how these have changed since its inception;
2. Examine the changing state policies on traditional medicine in Ghana and their implication for the mandate of the Centre; and
3. Interrogate the extent to which the Centre has influenced the development and practice of traditional medicine in Ghana.

With these specific objectives, the study was guided by three research questions:

1. What were the factors that influenced the establishment of the Centre and its evolution?
2. How have the changing state policies on traditional medicine impacted the Centre and the practice in Ghana?
3. To what extent has the Centre influenced the development and practice of traditional medicine in Ghana?

## 1.4 Definition of Key Concepts

Definitions are helpful for purposes of clarity and precision (Swedberg, 2014). Therefore, what is meant by using particular terminologies or concepts in research must be defined to avoid ambiguity and guide the reader. A concept is "the rational purport of a word or a conception" (Peirce, 1998a, p. 332). In this sense, the concepts used in this study include traditional medicine, traditional herbal medicine, herbal drugs, medicinal plant, traditional medicine practitioner, and traditional healers. The reasons for choosing these concepts were not arbitrary but rather because they constitute the crux of the study. They are therefore defined as follows:

Traditional Medicine: Ghana's Traditional Medicine Practice Act (TMPA), 2000 (ACT 575) defines the term as: "practices based on beliefs and ideas recognised by the community to provide health care by using herbs and any other naturally occurring substances". WHO also defines the term as:

> Different practices, methods, knowledge, and beliefs in health which imply the utilisation for medical purposes of plants, animal parts and minerals, spiritual therapies, techniques, and manual exercises, applied either individually or in combination to look at, to diagnose, and to prevent the diseases or to protect the health (E. K. Mpinga et al., 2013)

I was comparing the two definitions provided for traditional medicine above. WHO's definition provides a broader spectrum of healing modalities to be considered traditional medicine than the TMPA's definition. Therefore, this study adopted WHO's definition in order not to limit the discussions on traditional medicine in the context of the study.

Traditional Herbal Medicine: The TMPA defines herbal medicine as: "any finished labelled medicinal product that contains as active ingredients aerial or underground parts of plants or other plant material or the combination of them, whether in the crude state or as plant preparation." It also indicates that, "herbal medicines may contain excipients in plant material in addition to the active ingredients and exceptional cases, may also contain natural organic or inorganic active ingredients which are not of plant origin." This meaning of herbal medicine reduces the scope as it excludes unprocessed herbs in indigenous practices. For this reason, the term traditional herbal medicine is used in this study to encompass all the forms of herbal medicine practices that are indigenous and still very popular in the Ghanaian context. The processed ones are conceptualised in the study as herbal drugs. Per the definition of traditional medicine above, traditional herbal medicine is a subset of traditional medicine, considered the universal set. Thus, the two terms have been used interchangeably in the study in instances where the two meanings coincide.

Medicinal Plant: WHO defines a medicinal plant as a plant in which some or all of its parts can be used directly to manage disease (Falodun, 2010). The use of the term in this study is consistent with this definition.

Traditional Medicine Practitioner: The term traditional medicine practitioner (TMP) means a practitioner whose practice uses herbs and any other natural products and who is duly registered and licensed to practice by the Traditional Medicine Practice Council (TMPC) as stipulated in

TMPA, 2000 (ACT 575). The term is used accordingly in this thesis. Practitioners who are not registered and licensed are referred to as traditional healers in the thesis. In this light, a traditional healer is seen as a "person involved in a broad range of practices including herbalism and spiritualism" and diviners, priests/priestesses of deities, herbalists, or religion-based healers (Wane, 2011, p. 288).

## 1.5 Relevance of the Study

Academically, this study is relevant to sociological discourse. It provides information on human behaviour within institutions, particularly the factors influencing behaviour among actors in Ghana's traditional medicine industry. It reveals how groups and individuals exploit their environment to achieve their objectives through the factors that influenced the establishment of the Centre.

Besides, the study provides a much more detailed understanding of the complexities of traditional herbal medicines used in everyday practice. At the same time, it generates medical knowledge by using evidence from the field to produce an academic piece that details the processes by which the Centre developed knowledge through contact with indigenous people and the environment, thereby making it useful in medical anthropology.

Furthermore, the study broadly contributes significantly to the literature on traditional medicine, which is a significant concern for most countries globally since biomedicine, the mainstream health care system, has fallen short of meeting the health care needs of populations in these countries. Specifically, it enriches the literature on traditional medicine centres and their role in the context of science and technology in the transformation of traditional medical practice.

The infusion of science into the practice of traditional medicine has gained prominence through the activities of traditional medical centres. The study, therefore, serves as a guide to these institutions on how to apply scientific knowledge to traditional medicine to avoid tensions and conflicts between them and traditional healers who continue to be the source of the traditional medical knowledge in possession of the Centres.

Policy-wise, the study is a reliable information resource for policymakers in ongoing policy discussions on traditional medicine in the country. It will support the formulation and implementation of more appropriate policies in the development and practice of traditional medicine since the country still has a long way to go. The study reveals that the existing policies are not responsive to the needs of the actors in the industry, especially traditional healers who constitute the broad base of practitioners across the country and provide health care through traditional modes of healing for the majority of the population. The study will also benefit other developing countries that share Ghana's experience in developing traditional medicine.

## 1.6 Structure of the Thesis

The thesis is organised into seven chapters. Chapter one, which is the introductory chapter, focuses on the background of the study, problem statement, objectives, research questions, and the study's relevance. Chapter two focuses on a review of the literature that is related and relevant to the study. It concentrates on aspects of the practice and developments of traditional medicine, scientific capacity building in traditional medicine, the institutionalisation of traditional medicine in the pluralistic medical context of Ghana, and the theoretical perspective underpinning the study. Chapter three dwells on the data collection methods and all the methodological issues in collecting

data on the field. It also gives a justification to the epistemological and ontological positions of the study.

Chapter four focuses on the creation, evolution, and development of the Centre. It builds on earlier chapters to make a case for the Centre's establishment. It identifies three important precursors that led to the Centre's establishment.

Chapter five discusses the various state policies on traditional medicine in Ghana since independence. The chapter also delves into the infusion of modern scientific methods into the production of herbal products and the contradictions inherent in the processes. Chapter six focuses on the influence of the Centre in the development and practice of traditional medicine in Ghana. The chapter evaluates the influence of the Centre using four critical stakeholders: practitioners of traditional medicine, clients of traditional medicine; the people of Mampong; and the regulatory institutions. In discussing the perspectives of these stakeholders, the chapter highlights the tensions and conflicts emanating from the Centre's relationship with its stakeholders. The seventh and final chapter summarises the study's main findings, concludes from that place, and makes some recommendations based on the findings.

# CHAPTER TWO

# EXPLORING THE LITERATURE

## 2.1 Introduction

Historically, different cultures of the world have used various methods for diagnosing, treating, and preventing diseases (Mohr, 2009). These forms of traditional medical practices have been of interest to a variety of people, more especially since the fifteenth century when Europeans encountered African civilisations (Addae, 1996). For missionaries, traditional healers were perceived as competitors to mission medicine in the spiritual and medical domains. Therefore, to limit the influence of healers, missionaries superimposed their moral superiority and medical successes over the healers' (Schmid, 2018). For anthropologists, traditional medicine has been described as backward and primitive compared to modern biomedical practices (van der Geest, 2006). Further, scientists consider the practice unscientific, ineffective, unsafe for users, and without evidence (Feng et al., 2017; E. K. Mpinga et al., 2013).

Consequently, the literature on traditional medicine is varied and complicated. This chapter reviews the literature that is relevant to the subject. It concentrates on an overview of the practice of traditional medicine, scientific capacity building in traditional medicine, medical pluralism in Ghana, and the theoretical perspective underpinning the study.

## 2.2 An Overview of Traditional Medical Practice

Traditional medicine represents the indigenous foundations of health care systems. Besides the definition given by WHO, various authors have attempted some definitions of traditional medicine in different contexts. Wane (2011), for example, sees traditional medicine as a health care system

that has been in place for thousands of years and has numerous holistic, dynamic, complex, and community-specific healing practices. Isola (2013, p. 320) opines that traditional medicine "involves collecting, conserving, utilising and applying medicinal plants for the cure, prevention, and promotion of physical and spiritual well-being of citizens". He expounds further that it is the "totality of the practice, measures, ingredients, and procedures of all kinds which enable the African to guard against diseases, alleviate sufferings and to cure them".

The above definitions, emanating from the African context, presuppose that African ontology is underpinned by communalism, making healing an all-inclusive process (Wane, 2011). The person, as a whole, and their social and physical environments are significant if healing is effective (Isola, 2013; Wane, 2011). It also becomes evident from these definitions that the indigenous or traditional health care system uses plants and natural products to prevent, mitigate, and cure diseases and is connected to the belief that the universe operates according to some natural laws (Wane, 2011). This belief is central to traditional healing and pertinent to understanding the purpose of life and the nature of the disease. Healing begins with a reconnection with the natural world – the home of the spirits in constant touch with the people. From this perspective, there is no disintegration of body, mind, and spirit. Therefore, all forms of manifestation – physical, mental, or emotional – cannot be treated in isolation (Dove, 2010; Evans-Anfom, 1984; Rasmussen, 1998; Wane, 2011).

Contrary to the above views on traditional medicine, scholars who argue from a modern scientific background label all medical systems, other than biomedicine, as a complementary, alternative, integrative, or natural. Collectively, they are also referred to as non-conventional or CAM. According to Mpinga et al. (2013), this is due to the perception that traditional or indigenous medical systems are complex social and cultural entities, limited in rationalisation, and lack

empirical evidence. Therefore, CAM is seen as a "broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period" (Mpinga et al., 2013, p. 45).

Mpinga et al. (2013) further explain that CAM includes practices and ideas believed to be effective in preventing and treating diseases, promoting health and well-being by users since they are not evidence-based. At the same time, alternative medicine is seen as a "corpus of theories, knowledge, and practices of care susceptible to supplant modern therapeutic methods when those methods fail to achieve their goal" (Mpinga et al., 2013, p. 45). However, some have further argued that this 'alternative' label on traditional health care systems has utility only in countries where biomedicine is predominant and readily available (Wane, 2011).

In their study, Mpinga et al. (2013) wrote on traditional/alternative medicines and the right to health. Their study aimed at elucidating a theoretical framework of the role of these medicines in realising the right to health and identifying the potential manifestations and causes of violations of the right to health. Even though the authors acknowledged that these healing modalities could contribute meaningfully to the realization of effective health outcomes, they were also saddled with some shortfalls. These shortfalls could jeopardise users' health conditions or violate their right to health. Even so, some scholars (Feierman, 1985) argue traditional medicine is verifiable since it is tested against time and experience.

Wane (2011) points out his reservations about describing knowledge that cannot be expressed in Western or modern scientific terms as unreal, metaphysical, irrational, subjective, uncivilised, and primitive. He observes that indigenous knowledge systems rather have the capacity of seeing the world in multiple ways. In this sense, the world could be physical or metaphysical, real or unreal,

objective or subjective, natural or spiritual, and scientific or superstitious, depending on the ontological and epistemological foundations of knowledge construction. It is quite unfortunate that these forms of knowledge construction are described as invalid and illegitimate based on Western standards. For Wane (2011), traditional medicine has a lot to offer to the people of Kenya where his study was conducted.

Also, Rasmussen (1998) opined that healing traditionally goes with faith, which is why religiosity is often added to invoke fear that leads to faith. In the author's view, it is a result of counter knowledge from Western science that traditional medicine has problems with standardisation. The idea of Western science constituting the only legitimate and rational way of knowing has been highly contested in recent times (Wane, 2011). In addition to other studies, these two studies provide substantial evidence to show that in recent times traditional medical practitioners have come under scrutiny and are pressurised to adopt the norms of biomedical practice (Evans-Anfom, 1984; Hiegel, 2013). Meanwhile, as Wane (2011) rightly observed, indigenous knowledge systems are valid in their own right and should be seen as another source of medical knowledge besides biomedicine. Therefore, traditional medicine must be recognised as a unique category of its own kind, *sui generis* (Osseo-Asare, 2014).

The above notwithstanding, there is a growing awareness among the scientific community and the general public about the efficacy and the value attached to traditional medical practice – an indication that traditional systems of medicine form an integral part of the health systems of many countries across the globe and cannot be ignored (Chary & Sargent, 2016; Gibson, 2011; Wane, 2011). Despite the colonial legacy of demonising traditional medical systems in Africa and elsewhere, the practice has managed to survive because biomedicine has failed to meet the health needs of indigenous populations fully and therefore the necessity to revert to traditional modes of

healing (Falodun, 2010; Rasmussen, 1998; Wane, 2011). Therefore, postcolonial government efforts strengthening and encouraging the use of traditional medicine, as shown in the case of Ghana.

More scholars (Roux-Kemp, 2010) have argued that institutionalising traditional healing will increase the cost-effective delivery of health care and provide alternatives to indigenous populations. These populations have always had comprehensive traditional healing systems in place, without which survival would have been challenging if not impossible (Anquandah, 1997; Dove, 2010; Roux-Kemp, 2010). The resurgence in demand for traditional medicine and subsequent global recognition explain these issues. Examples of these recognitions include the International Drug Monitoring programme of WHO of 1970 and the strategy adopted by WHO to get traditional medicines integrated into various national health systems in 2002, although biomedicine is mainstream and universal (Roux-Kemp, 2010).

Noteworthy are also the discussions that emerged on the contribution of traditional medicines in achieving the health-related Millennium Development Goals (MDG). It has also been identified as a tool for Africa's development and a driving force for the sustainable use of the environment (Pesek et al., 2006; Smith-Hall, Larsen, & Pouliot, 2012). However, it is essential to point out that aside from the generalisations regarding the endorsement of traditional medicine, some people are still sceptical of practitioners because they claim the methods by which some practitioners operate often fall short of what is required by international standards (Hiegel, 2013). Therefore, there has been a re-composition of traditional healers based on new medical knowledge, including biomedicine. According to Rasmussen (1998), some are branded as elite practitioners, regardless of their social origin, because they have succeeded in infusing biomedical techniques in their

practice against practitioners who do not want to compromise the authenticity of their traditional medical practice.

Marsland (2007) also made mention of traditional medicine practitioners branding themselves as modern traditional healers. In the view of the author, in making a distinction between modernity and tradition, modernity becomes a moral project since it is in criticising what is traditional that modernity is realised. In this sense, biomedicine could also be tagged with the traditional label because it has been closed to other forms of knowledge. Traditional medicine has proven to be more progressive than biomedicine because some healers are ready to combine modernity with traditional practices. However, healers are still perceived as backward by the scientific enterprise (Marsland, 2007). Their biomedical counterparts in South-West Tanzania refuse to refer patients to them even when biomedicine fails to provide cures and discourage patients from seeing the traditional healers (Marsland, 2007). However, Marsland is quick to add that those traditional healers in the district support bylaws that will free people from the demands of old-fashioned traditions and are willing to adopt technology to improve their practice. It gives the impression that traditional healers themselves work against tradition, which contradicts earlier claims made by the author in defence of tradition.

Nonetheless, other scholars have confirmed the division among traditional healers along technological lines, where some are willing to adopt technology and others remain conservative. However, as some elite practitioners have pointed out, it is essential to distinguish between biomedicine and modern technology. With this distinction, modern technology tools to diagnose should not be seen as imitating biomedicine, for technology is not synonymous with biomedicine (Abraham, 2009). Yet still, for others, it is not about merely yielding to science and technology but to what extent it must be accommodated not to lose the cultural purity of traditional medical

practice. The perspective has been used in Chapter 5 to discuss the position of Ghanaian traditional healers in adopting science and technology in their practices.

With these developments, traditional medicine has evolved from one phase to another due to the interactions and exchanges among various societies and between practitioners, vendors, and clients (Falodun, 2010). The changes are evident in the production, packaging, provision, administration, and utilisation of herbal products. They are currently dispensed in various dosage forms like pills, decoctions, syrups, tablets, and capsules, among others (Falodun, 2010).

Evidence from various researches proves that the high demand for traditional herbal medicine over the years is due partly to its safety and efficacy perceived by the users. Consequently, the traditional pharmaceutical industry has seen growth in the cultivation, preparation, and marketing of herbal drugs, which has become the main form of institutionalised traditional medicine in many contexts (Evans-Anfom, 1984; Falodun, 2010). Roberts (2011a) indicates that the proliferation of foreign medicinal plants in the West African sub-region is a testimony of the exchanges which have taken place between indigenes and foreigners. It also shows how healers are always willing to add on new medical knowledge. These herbs are mainly from the tropical regions of Asia and America (Roberts, 2011).

Falodun (2010, p. 154) opines that herbal medicine is also known as herbalism, botanical medicine, medical herbalism, herbology or phytotherapy, and is seen as a "traditional medical or folk medicine practice based on the use of plants and plant extracts". However, the scope of herbal medicine is broadened to encompass some animal products and fungi, shells, and minerals (Attisso, 1983). For many years, plants have played an essential role in the lives of people. Although plants have been a significant source of food, plants are of greater significance in health

maintenance. Therefore, medicinal plants are paramount in tackling the myriad health issues facing humanity (Grierson et al., 2011; Srivastava, Lambert, & Vietmeyer, 1996; Wane, 2011).

Even though synthetic medicines have been dominant in allopathy in many parts of the world for many years, they are mainly plant-based (Osseo-Asare, 2014). Partly, the attention that traditional medicine has received around the globe in recent times is because pharmaceuticals have become very expensive and heavily reliant on technology (Cockerham, 2007). At the same time, traditional herbal medicine is less expensive, in some cases, and more in tune with the cultural beliefs of people who utilise it, making it more acceptable (Hiegel, 2013).

As mentioned in the previous chapter, patent rights, priority, and appropriation, among other things, have also come up as concerns for the documentation of indigenous healing knowledge (Osseo-Asare, 2014). These issues have been Osseo-Asare's (2014) focus in *"Bitter Roots: The Search for Healing Plants in Africa"*. Using six popular and widely sought-after medicinal plants in Africa as case studies, the author re-enacts the history of bioprospecting and biopiracy in plant drug discovery. *Periwinkle*, *Asiatic pennywort*, *grains of paradise*, *Strophanthus*, *Cryptolepis*, and *Hoodia*, metaphorically referred to as 'bitter roots', show how traditional African remedies led to the discovery of new pharmaceuticals. The study reveals how stakeholders – local communities, traditional healers, chemists, and drug companies – have contributed to scientific knowledge on medicinal plants with inequities in sharing benefits.

Osseo-Asare (2014) reveals that local communities that have been the sources of the healing knowledge in plant drug discoveries have often gone unacknowledged and uncompensated. The complexities and ambiguities in tracing the origins and ownership of indigenous healing knowledge are because traditional knowledge is not documented in Africa. Class inequalities

which the author links to idiosyncratic historical structures in Africa, permitted some parties to appropriate all the benefits in plant drug discoveries at the expense of others. In the case of Cryptolepis, the study throws light on how two prominent Ghanaians, Dr Albert Nii Tackie and Dr Oku Ampofo, did extensive work in this regard, but "as plants passed from healers to botanists, chemists and physicians, the lines of credit became blurred" (p. 140).

It is worth noting that the comprehensive coverage of Osseo-Asare's (2014) book deepens knowledge into how African medicinal plants have spread beyond the continent's borders and brings to the fore the challenges involved in determining who owns medical plants and qualifies to enjoy the benefits therein. Insights and information from the book featured strongly in the discussion of this study's findings. Her chapter on "take bitter roots for malaria" discussed the founder of the Centre and the Centre's earlier involvement in drug discovery research extensively and, therefore, has been an excellent resource for this study. Primarily, Chapter four focuses on the establishment and evolution of the Centre, and Chapter six discusses the tensions emanating from the interaction between traditional healers and the scientific community.

Writing over three decades ago, Evans-Anfom noted that traditional medicine was not dynamic and had not seen much development through time and called for modernisation in practice (1984). He indicated that no foreign exchange was required in the practice because the healers gathered all the ingredients and equipment needed to prepare remedies from the local environment. Yet, the need to modernise the practice was stressed. He called for safer preparation, standardisation of dosage, and large-scale production for broader coverage. The study did not take cognisance that the modernisation plan could bring about significant changes in the practice of traditional medicine and give it a more complex and sophisticated outlook, both with the ingredients and equipment required for production. Given these dynamics, modern traditional medicine practice has equally

become expensive, as it requires some ingredients and equipment which have to be imported to enhance production. These have created avenues for scientific capacity building for traditional medicine practitioners by establishing traditional medicine Centres in many contexts, which is the focus of the next section.

## 2.3 Scientific Capacity Building in Traditional Medicine

With the increasing demand for adherence to evidence-based practice, quality research is crucial to inform clinical practice and decision-making in traditional medicine across the globe (Feng et al., 2017; Gu & Pei, 2017; Pan et al., 2014). Therefore, Feng et al. (2017) assessed the characteristics and capacity needs of TCM researchers at the centres of traditional medicine and identified perceived barriers to, and facilitators for, building research capacity. In their findings, ranking highest among barriers to clinical research was limited incentives and funding. Their findings do not come as a surprise as several authors have equally identified funding as a barrier to quality research in traditional medicine institutions worldwide (Banerjee, 2002; Droney, 2017; Osseo-Asare, 2014).

To bridge this gap, transnational research collaborations with institutions of good standing in research and resources to build human resource capacity and equipment remains a viable option. However, Droney (2017) opines that capacity building components of some collaborations have the potential of undermining autonomy and should not be seen merely as a transfer of resources or equipment from one point to another. In the real sense, collaborations are supposed to lead to partnerships that enhance peer-to-peer academic research but not give one party an advantage. However, many researchers and traditional medical institutions do not know the capacity building is packaged as a social good with political undertones (Droney, 2017). Hence, Droney (2017, p.

451) explains that "efforts to build capacity, to contribute equipment and training to research institutions, come with implicit values and moral consequences that are not always apparent in the discourse about capacity". These have led to debates among herbal medicine researchers on the methods of studying traditional herbal medicine scientifically. The use of science in providing evidence in traditional medicine practice, as advocated by WHO, does not only improve it, as claimed, but also shapes it (Craig, 2011; Droney, 2017).

Traditional medicine researchers advocate methods that will take into consideration the synergetic qualities of medicinal plants. Since plants are more than their chemical constituents, research must target whole plant preparations and not the isolation of compounds, potentially misinforming and misleading the general public about the properties of some medicinal plants (Droney, 2017). Scholars have further argued that drugs discovered from such compounds may be perceived as having the same properties as the plants themselves. For example, *artemisinin* may be misconstrued as having the same natural qualities as the *artemisia* plant, or that *nimbidin* is the same as *neem* leaves and aspirin being the same as the plant *Spiraea ulmaria* from which it is derived (Droney, 2017; Pan et al., 2014).

Given these analyses, it is pretty clear that the impact of global and national pharmaceutical governance on the production of traditional medical remedies is farfetched, as "these changing forms of production reflect shifts in value systems and embodied practices" (Craig, 2011, p. 336). It is considered improbable, by the advocates of science, for the standards of legitimacy and quality control to emanate from within the traditions themselves and lead to modernity independent of Western science. Banerjee (2011) rightly observes that although traditional medicine has been recognised as one of the valued systems of knowledge by WHO and could be a basis of technology relevant for the future development of nations, it is still subjugated by science. In this light, she

argues that the modernisation of traditional medicine is motivated by a pharmaceutical episteme that is only interested in maintaining the practice for the supply of new medicines without paying attention to its worldview on the body, health, and disease.

Corroborating the above position, Craig (2011) points out that WHO's traditional medicine strategy maintains that biomedical standards should drive traditional medicine's safety, efficacy, and quality standards to be practical and scientific. As the Director-General of WHO, Dr Margaret Chan, confirmed in her speech at the 2008 Beijing Congress:

> Some systems of traditional medicine have histories dating back thousands of years. Over a comparatively short period, modern medicine has developed powerful methodologies for proving the efficacy, ensuring quality, standardising good manufacturing practices, testing for safety, and conducting post-market surveillance for adverse effects. Many, but not all, traditional medicines have an inadequate evidence base when measured through these standards (Craig, 2011, p.346).

Meanwhile, as Craig (2011) further argues, these are standards that biomedical therapies, techniques, and practices themselves rarely meet. For example, van der Geest (2006) notes that international pharmaceutical companies were guilty of unethical practices selling their products to underdeveloped countries. They dumped unwanted medicines in developing countries and falsified inserts of their medicines to make them marketable. Also, they gave more indications, reduced contra-indications and side-effects, and did not take responsibility for the abuse of their products since that meant more sales. These unethical practices seriously undermined the quality, safety, and efficacy standards they demand traditional medications to maintain. The terms safety, quality, and efficacy are cultural constructs and continue to be culture-laden since medical systems are intricately linked to the cultures they emanate from (Craig, 2011; Evans-Anfom, 1984).

Shanker et al. (2007) believe that drug regulatory regimes have failed to consider the difference between traditional medical knowledge and biomedicine in setting quality, safety, and efficacy

standards. A better way is to attempt to translate the existing traditional standards into modern ways that can make them more appealing and attractive instead of setting new standards all over, based on biomedical scientific standards. Doing this will revolutionise a modern intercultural standard for quality, safety, and efficacy in traditional medicine. As it stands now, modern science rests on the philosophy of logical positivism where produced knowledge must be amenable to replication, a procedure imposed on traditional medicine.

The authors further argue that plants, which form the mainstay of traditional medicine, have different local names; therefore, in establishing standards, it is necessary to consider the traditional classification of plants according to their therapeutic properties. To establish intercultural quality standards, the authors proposed the following: building traditional databases on the identity of plants; collection methods; processing; dosage forms; diagnosis; therapeutic indications; and expected outcomes. Researchers can then use scientific tools to study the relevance of traditional concepts and approaches to healing. These standards will quickly identify the scientific differences that show when traditional methods are used and how relevant they are in the product's safety, quality, and efficacy. The scientific tools should be capable of giving meaning to the existing traditional standards.

Furthermore, there is the need to invent new techniques and equipment since the current ones are mainly designed for biomedical drugs with single molecules because plant medicine involves extracts with multiple herbs, an argument already advanced by Droney (2017). The modern scientific tools will not provide exact correspondence because traditional knowledge is qualitative while modern science is quantitative. Also, biomedical science espouses a one-time cause and effect of diseases and produces drugs aimed at a single cause. In contrast, traditional medicine looks at the effect of the medicine on the whole system. Using biomedical standards to establish

the efficacy of traditional medicine will continue to generate problems (Shankar, Unnikrishnan, & Venkatasubramanian, 2007).

As scholars (Craig, 2011; Shankar et al., 2007) have argued, the current method of clinical trials needs to be revised because traditional medicine is customised and uses a multifaceted approach to healing. Practitioners use drugs, diet, and non-drug methods aimed at restoring the whole system. Intercultural research, therefore, is vital in the context of the medical pluralism that we find around and holds the key to advancement in world medicine as espoused by WHO

Nonetheless, Kim (2007) argues that traditional medicine has taken advantage of opportunities to enhance its scientific status and maintain a good relationship with governments in many contexts. By accepting the principles of the scientific method, traditional medicine has succeeded in moving beyond its boundaries, even though not without continuous suspicion from the scientific community. However, this move has not been without consequences as it has had to give up its concepts and methodologies, to follow scientific rules and standards. Consequently, some scholars have continued to argue that we borrow aspects of science that apply to traditional medicine and not impose it as a whole on tradition (Kloos, 2015). each system will then maintain its integrity and quality. Otherwise, traditional medicine practitioners are tempted to compromise some science procedures and undermine them in the end.

Arguing in favour of intercultural standards, Alesina and Giuliano (2015) opine that institutions cannot be isolated from cultural influences. They believe that cultural values are persistent and have an effect on modern scientific institutions. There is a complex interdependent relationship between culture and institutions, leading to the coevolution of the two in any particular context (Alesina & Giuliano, 2015). Therefore, for culture, in the form of traditional medicine to be

perceived as a primitive phenomenon that needs to be polished and modernised by scientific institutions, without culture in turn, influencing these institutions is not an accurate assessment. The authors indicate that it must be understood as a two-way interaction that compromises aspects of both culture and institutions. Therefore, it should not be assumed that science can transform traditional medicine without aspects of it being compromised to accommodate the cultural values inherent in the latter. The authors conclude that until policymakers, both local and global, come to this realisation, the practice of traditional medicine will continue to be characterised by tensions and conflicts, as it is being experienced currently among the various stakeholders in the industry in Ghana.

Institutions, such as the Centre, set up to develop indigenous medical practice should be avenues for synthesising unique medical and cultural rudiments peculiar to socio-historical contexts (Abraham, 2009). For example, Abraham (2009) argues that institutions should shape the relationship between culture and medicine. A sociological study of them helps understand the reproduction of traditional medicine both as culture and as medicine in postcolonial society. The social changes resulting from the institutional and professional development in indigenous medical knowledge are seen as modernisation, of which some traditional healers are still sceptical. However, the author believes that institutional practice allows diffusion of the limits of a wide range of traditional medical practices, introducing a secular and cosmopolitan orientation that paves the way for a unified practice. Institutional principles like record-keeping, disclosure of ingredients and their sources on labels and the professionalism exhibited by practitioners do not necessarily interfere in the methods used and help preserve the authenticity of traditional medicine (Abraham, 2009).

Despite these discourses, there is advocacy for a merger between traditional medicine and biomedicine to meet the health needs of contemporary society. In Ghana, most people have combined the use of the two medical systems. Furthermore, many have emphasised collaboration between traditional healers and biomedical practitioners because the level of faith reposed in the traditional methods of healing makes them highly efficacious for the people (Chary & Sargent, 2016; Hiegel, 2013; Lake et al., 2012). The phenomenon of medical pluralism is in vogue in most parts of the world irrespective of the level of industrialisation of the societies involved. As mentioned already, the myriad of health issues facing humanity in this modern era makes it clear that no particular health system will suffice. The review, therefore, turns attention to medical pluralism in the Ghanaian context.

## 2.4 Medical Pluralism in Ghana

As noted above, it is clear that biomedicine in its entire history has never achieved universal coverage in health care provision in many contexts. Therefore, despite its introduction and prominence over traditional medicine, the latter never lost its relevance, as many scholars have established (Isola, 2013; Senah et al., 2001). According to Mpinga et al. (2013), these traditional medicines go beyond the medicines themselves to a broader scope of experiences, practices, and products. These include herbal medicine, acupuncture, spiritual or mineral practices, manual therapies, and exercises.

In his book, *"Medical systems in Ghana: A Study in Medical Sociology"*, Twumasi (2005) advances arguments that lend credence that traditional medical practices have never ceased to be helpful in contemporary health care practices. Using contemporary Ghanaian society as a case, he emphasises that traditional medicine in all its variants may never disappear, especially in

traditional setups, regardless of urbanisation and social change in general, suggesting a kind of medical pluralism that has persisted over time. He points out that cross-cultural borrowing between the two medical systems will ensure a medical environment suited to contemporary health issues.

Even though he states that biomedicine may continue to gain polarity over traditional medicine because of government support, he makes allusions that traditional medical practice will continue to play an essential part in the country's social organisation. He partly attributes this to the failure of biomedical practitioners to show interest in the fears and anxieties of their patients to treat the person as a whole. Biomedicine's interest is centred on disease and diagnosis processes to the neglect of the sufferer who could also be going through a range of psychological problems resulting from the disease. He further indicates that traditional medicine has proven to be more effective than biomedicine in psychiatry, which is why the former's relevance will continue to be upheld in contemporary society. However, limiting the relevance of traditional medicine to the area of psychosomatic disorders is quite problematic. As evidence has shown, psychosomatic illness is just one of the several areas in which traditional medicine has proven effective (Dove, 2010; Isola, 2013; Marsland, 2007). It has equally effectively tackled many acute and chronic diseases, including malaria, enteric fever, arthritis, stomach ulcer, asthma, diabetes, hypertension, and sexually transmitted infections. However, the nature of the practice model and the processes by which these medicines are produced are of the essence.

Nonetheless, regulatory agencies, like the Food and Drugs Authority (FDA) in Ghana and other countries like India and Nigeria, have helped raise standards in traditional medical practice (Harilal, 2009). In this regard, there is evidence of government attempts in Ghana to integrate traditional medicine into mainstream health care following WHO's recommendation (Agyei-Baffour et al., 2017; Boateng, Danso-Appiah, Turkson, & Tersbol, 2016).

Agyei-Baffour et al. (2017), through a quantitative study, sought to establish the degree of integration of traditional herbal medicine into the formal health care system in Ghana. Using client perception, disclosure, and acceptability of integration, as variables the study found that 42.2% of respondents who sought health care at Kumasi South, Suntreso, and Tafo government hospitals, all in Kumasi, opted for the services of traditional medical practitioners available at the facility. While this suggests a high level of acceptability of integration, they concluded there are gaps in getting people aware of the integration system. Respondents also disinclined disclosing previous use of herbal medications to their allopathic health providers.

It is essential to point out that disclosure has long been identified as a problem when integrating the two medical systems or affecting collaborations between practitioners across the two health care systems. Biomedical caregivers do not subscribe to their clients patronizing the services of traditional practitioners, as they continue to think the practice lacks a scientific basis and may cause harm to patients (Chary & Sargent, 2016; Marsland, 2007).

In a related study, Chary and Sargent (2016) discuss ethical issues encountered by Western biomedical practitioners working internationally, where they find colleagues who endorse local healing practices. For them, these practices are not scientifically supported and might cause harm to patients. The authors think that biomedical practitioners have to understand local meanings associated with traditional therapies and demonstrate respect for local cultural ideas and practices, even if they disagree with such therapies. However, Western biomedical practitioners argue that respect for the autonomy of local practitioners and patients can conflict with the ethical principles of beneficence and non-maleficence in biomedical practice. Nevertheless, the authors conclude that practitioners should communicate their concerns to colleagues as equal partners in such

situations, which constitutes a realistic approach to cross-cultural clinical practice (Chary & Sargent, 2016).

Still, on medical pluralism, Boateng et al. (2016) shared similar sentiments on integrating traditional medicine in mainstream health care at Kumasi South Hospital. They also revealed that most patients lacked awareness of the availability of a herbal clinic at the facility. While medical herbalists and their patients perceived the system as integrated, their biomedical counterparts had contrary views and saw it as relatively parallel than integrated. The shortage of regulatory frameworks guiding the implementation of the integration policy accounts for this discord between the two groups of practitioners. Both studies recommended education to create awareness in the general public and biomedical practitioners on the legality of integration in public health facilities.

The two studies are complementary. While Boateng et al. (2016) conducted their study earlier using the qualitative method to bring out intricacies from the actors' point of view, Agyei-Baffour et al. (2017) conducted their study a year later with the quantitative method to show the statistical significance of the analysis. However, both studies were conducted in the Kumasi metropolis. They did not give us a fair idea of how integration is perceived and practised across the country. Integration has been implemented on a pilot basis in eighteen public health facilities across the country since 2012. The studies could have covered a broader scope of the policy for findings to be generalizable in terms of awareness and acceptance among the Ghanaian populace. For example, it was indicated that about 81% of the population in the Kumasi metropolis are registered under the National Health Insurance Scheme (NHIS). NHIS could affect patronage of traditional medications because the scheme does not cover them. Therefore, patients may opt for biomedical care if the cost involved in traditional care is perceived as expensive.

The issue of NHIS and traditional medical care is one of the critical findings of this current study and has been discussed extensively in Chapter six. Nonetheless, insights from these two studies have been helpful in the discussion of the study's findings. The following section dwells on the theoretical perspective underpinning this study.

## 2.5 Theoretical Perspective

It has been argued that change is the core problem of sociology as it seeks to explain the significant changes that characterise modern society (Browne, 2015). Beyond the era of the Enlightenment, classical theorists concerned themselves with the subject of modernity and the social changes that came along. These theories were espoused in different but related ways. While some contended that the shift from traditional to modern society brought about significant transformations in social structures, others believed that the transformations were not limited to social structures but also affected individual experiences (Allan, 2005; Edles & Appelrouth, 2005). Therefore, the sphere of conceptualization by the various social change theorists was determined by their own experiences of the changes in their respective societies.

For example, Comte's conception of change was dualistic, embracing both *order* and *progress* – a conservative concern for an order against unrestricted freedom for progress – *statics* and *dynamics.* Comte emphasised that the distinction was not between two classes of facts but somewhat between two theory features. For him, *order* had to do with the experience of a permanent harmony in social existence, and progress meant social development, making statics and dynamics correlated in all circumstances (Allan, 2005; Carlson, 1978).

Marx, on the other hand, held a contrary view on the subject of social change. He argued that as societies change, histories are made in response to dialectic structural forces in the economy. From his perspective, society had a moving balance of antithetical forces that drove social change through tensions and struggles. Thus, for Marx, social conflict rather than benign growth was instrumental in generating progress in society (Coser, 2010). Espousing change in social systems could not depend on extra-social factors such as climate, for these factors remain constant even when significant transformations occur in society.

Social change theorists accentuate that society constantly changes, making change a continuous process with varied viewpoints (Bammer, 2015; Giddens & Sutton, 2013). From this perspective, Giddens (1984, p. 243) contends that in "explaining social change no single and sovereign mechanism can be specified; there are no keys that will unlock the mysteries of human social development, reducing them to a unitary formula, or that will account for the major transitions between social types." Thus, developing a good understanding of change requires grappling with the complexity of change itself (Bammer, 2015).

As Twumasi (2005) indicated, social change refers to the significant changes that occur in the social structure. These changes affect the different forms of social action and interaction embodied in the rules of behaviour. Therefore, until their principal dimensions delimit sub-systems within the social structure, change cannot be perceived. To this effect, Giddens (1984) argues that all forms of social activities take place within time and space, and the rules governing social action in the context of time and space constitute the main distinguishing feature between traditional and modern societies. What is modern as opposed to what is considered traditional, according to Giddens, is society's arrangement of a contemporary world that supersedes its past.

This arrangement engenders a free society from traditions, customs, habits, expectations, and beliefs characteristic of its history. Modernity, then, becomes a historical condition of difference, displacing everything that has gone before (Giddens & Pierson, 1998). Hence, "Modernity can be recognized by an idea of the world as open to transformation by human intervention, an industrial mode of production and a market economy encompassed by a nation-state together with an ethos of mass democracy" (Giddens & Pierson, 1998, p. 94). As a result, modernity is qualitatively different from all previous forms of social order – a complex of institutions living in the future rather than in the past.

Thus, as a study that depicts a change in social institutions, there is the need for a theoretical perspective that incorporates conceptual models of change to provide sociological explanations to the changes in traditional medicine practice. Further, institutions are established to achieve specific goals in society (Allan, 2005). However, when these goals change, institutions also change, making a theoretical perspective on social change in this thesis critical.

Some change and transformation models integrate Comte's social dynamics and social statics, mainly explaining change processes and stable social, institutional patterns (Allan, 2005). For, embedded in the constant patterns of change are continuities with the distant past. In this sense, traditional institutions maintain some ties with ideas and practices instituted in the past (Giddens & Sutton, 2013). Thus, measuring change lies in assessing the degree of modification in primary institutions for a specific period – what remains stable despite modifications must also be shown. Thus the study adopted Comte's theory of change to explain the changes that have taken place in the practice of traditional medicine in Ghana while showing the stable patterns of the practice.

## 2.6 Conclusion

Traditional medicine, despite the dominance of biomedicine in most contexts, has maintained its relevance through time. The synopsis of the practice provided in this review has shown that most populations across the globe still place their faith in the effectiveness of traditional remedies, even though it is utilized selectively in some cases. For this reason, some have argued that the practice needs to be improved by the infusion of biomedical scientific standards to meet international standards of quality, safety, and efficacy.

On the contrary, others have argued that traditional medicine is authentic in its own right and has good quality, safety, and efficacy within its processes. These authors point out that the two medical systems are culturally distinct, and the only way out is intercultural borrowing for each system to maintain its integrity and quality. The works reviewed also reveal the complexities emanating from the imposition of biomedical standards on traditional medicine because of the cultural distinction between the two medical systems. For example, Shanker et al. (2007) indicate that biomedicine is quantitative, adopts a one-time cause and effect of diseases, and produces drugs aimed at the single cause. In contrast, traditional medicine looks at the effect of the medicine on the whole system, making it qualitative.

Worthy of note at this point is the fact that apart from Wane's study, which emphasises the uniqueness of African traditional medicine, and a few more reviewed in this chapter (Marsland, 2007; Rasmussen, 1998), most of the reviewed works focus on Asia. Even so, the case of the Ghanaian context of how African traditional medicine practitioners and advocates respond to the modernisation plan of the practice through the imposition of biomedical standards is limited in the literature. This study, therefore, intends to fill that gap.

Finally, the focus of Boateng et al. and Agyei – Mensah et al. was to measure the success of the integration of traditional herbal medicine into Ghanaian mainstream health care. However, they ignored the intricacies of this policy from the perspective of practitioners, clients, and regulatory institutions as far as the practice of traditional medicine in Ghana is concerned. Also, even though the Centre's products are mainly prescribed at the herbal medicine units in the selected health care facilities, the authors did not include the Centre in the studies. This study reveals more by incorporating the perspectives of all stakeholders, thereby enriching the literature with a more nuanced analysis of traditional medical practice in the Ghanaian context.

# CHAPTER THREE

# STUDY APPROACH

## 3.1 Introduction

As stated in Chapter One, this thesis aims to examine the contribution of the Centre to the development and practice of traditional medicine in Ghana. Therefore, the methodology adopted took into consideration the factors that drive research into plant medicine and the linkages with traditional medicine practitioners, regulatory institutions, and clients of traditional medicine. Furthermore, it was imperative to adopt a research design that is methodologically rigorous and theoretically sound to achieve the expected results.

The methodological approach adopted for this study was guided by the ontological and epistemological positions of the researcher. The research methodology a researcher adopts is shaped by their appreciation of the nature of reality, the relationship between researcher and research participants, and the methods by which research objectives are achieved. The methodology also makes explicit the values a researcher attaches to the nature of reality and how it is perceived and understood under specific circumstances (Birks & Mills, 2015; Charmaz, 2008; Creswell, 2009; Neuman, 2014; O'Reilly & Kiyimba, 2015).

Consequently, from a relativist philosophical standpoint, the researcher holds the view that reality is socially constructed based on the subjective understanding and interpretations of life experiences, as opposed to the realist position which holds that there is an objective reality out there that only needs to be discovered (Avis, 2005; Charmaz, 2008; Mason, 2000; Rychlak, 1999). The above follows the philosophical thought of constructionism, emphasising how human interactions and their subjective interpretations help construct social reality (Marvasti, 2004).

### 3. 2 Research Design

A research design determines the phenomenon to be observed and analysed, how it should be done and why. In other words, the design of research spells out what is to be studied, the methods and procedures to be used for the study, and the reasons for choosing these methods (Babbie, 2005; Kumekpor, 2002). As noted by Sinkovics and Alfoldi (2012, p. 22), "The research design should be underpinned by a sound understanding of epistemological conventions and the explicit articulation of what the study is trying to achieve". Therefore, to bring out the sociological significance of elements of the study, it was designed as a qualitative study with constructionist grounded theory (Charmaz 2008) approach driving data collection and analysis.

In Charmaz's (2008) view, a social constructionist approach to research dwells on what is constructed by people and the processes by which these constructions are made relevant. On the other hand, the term grounded theory refers to the product of research and the analytical process that produces it. It could also be seen as a method constructed by researchers through the process of data collection. Consequently, the method begins with inductive qualitative data collection and analysis techniques, which may lead to the development of middle-range theories (Annells, 1996; Birks & Mills, 2015; Charmaz, 2008; Strauss & Corbin, 1998).

Glaser and Strauss, who were the first to espouse the principles of grounded theory in their sociological works in 1967, believed that extant theories used by researchers were not appropriate and "ill-suited for participants understudy" (Creswell, 2007, p. 63). They argued that theories should be grounded in data from the field through actions, interactions, and participants' social processes and environments. They saw social researchers of their time as deviating from the core principles of theory generation to the testing of existing theories (Charmaz, 2008; Creswell, 2007; Rupsiene & Pranskuniene, 2010).

It must be noted, however, that since its development, grounded theory has gone through a series of modifications to suit the purposes of various authors and researchers such as Strauss and Corbin (1990), Clarke (2005), and Charmaz (2006). These modifications have taken place amidst fierce paradigmatic debates. They have built a body of knowledge so enormous that choosing to work with grounded theory has become a complicated task, especially for early academics who are now finding their feet in qualitative research. The difficulty primarily reflects in decisions made by researchers on where to start, which position to take, and why (Birks & Mills, 2015). Acknowledging this development as a challenge for qualitative researchers, Charmaz (2008, p. 399) stated that "until 1990, most scholars saw grounded theory as a single method based on a shared logic. As both the originators and their students worked with the method, changes emerged, and debates ensued about what grounded theory entails, whose version is correct, and which direction the method should take."

In response to these modifying positions, Glaser, the originator of the theory, maintains that classical grounded theory remains the same through time (Rupsiene & Pranskuniene, 2010). Charmaz has refuted this argument and believes that a method cannot remain unchanged when designed to explore a constantly changing social world. Due to this position, Charmaz has moved from the social constructivist perspective to social constructionism. Researchers and research participants interpret and construct the world in social constructionism, concluding that theories are not discovered but instead constructed (Charmaz, 2008). Constructivism only pays attention to the interpretations and constructions of research participants. Therefore, two influential groups of grounded theorists are traditional positivist/post-positivist and interpretative/critical (Rupsiene & Pranskuniene, 2010).

Charmaz's approach was chosen because this study is about transformation, and a method that is accommodative of modification through time is appropriate. Besides, the researcher wanted to start the inquiry with an open mind and satisfy the curiosity that inspired the interest in the development of traditional medicine in Ghana instead of testing existing theories. Also, the study was exploratory because the researcher wanted to explore the activities of the Centre and other stakeholders in the Ghanaian traditional medicine industry to advance a deeper understanding of the developments. This phenomenon was relatively new to the researcher. The following section throws more light on the qualitative approach to research.

### *3.2.1 Qualitative Approach to Research*

The choice of the qualitative methodology did not come about as a matter of convenience or superiority over other methods but rather because it proved to be more suitable in achieving the study's objective. Moreover, there is enough evidence of its use in similar situations to bring out "a deeper understanding of social phenomena and their dynamics" (Attride-Sterling, 2001, p. 385). For example, Kloss (2008; 2015; 2016; 2017) used the qualitative approach in studying the history and development of Tibetan medicine in exile and how it has gained worldwide recognition in the traditional medicine industry. He demonstrated through this approach a deeper understanding of how Tibetan medical practitioners adopted the use of biomedical practices to develop their traditional medicine to preserve their religious and cultural identity.

Rasmussen (1998) also used the same approach to study traditional medicine among Tuareg communities of the Air Mountains in northern Niger. She unravelled the intricacies and connection between medicine, healing, and power in the caregiving discourse of the people. Furthermore, Marsland (2007) studied traditional healers in Southern Tanzania with the qualitative approach and elucidates how they view themselves as competitors to biomedicine practitioners. By

emphasizing the similarities between their medicines and pharmaceutical drugs, they succeeded in repositioning themselves as 'modern' traditional healers within the medical landscape of Tanzania.

The qualitative methodology was, therefore, used because of its relevance to this study. It has within it processes that are dynamic, fluid, and flexible and is underpinned by different epistemological positions and methods. Its philosophical assumptions on phenomenology, symbolic interactionism, and Weberian *verstehen* provide analytically sound explanations to social phenomena (Attride-Sterling, 2001; Creswell, 2007; O'Reilly & Kiyimba, 2015). The method requires close contact with participants to engender a contextual understanding of the social world from the actors' point of view to generate in-depth and rich data.

### 3. 3 Study Participants

Participants for the study were in six main categories: The Centre's employees, clients of traditional medicine, practitioners of traditional medicine, community members of Mampong and its environs, and the Department of Herbal Medicine, KNUST. Centre's employees were crucial as significant information required depended on them. The sixth category consisted of institutions mandated by law to regulate traditional medicine practices, practitioners, and products in Ghana. These include the Food and Drugs Authority (FDA), Traditional and Alternative Medicine Directorate (TAM-D), and Traditional Medicine Practice Council (TMPC). These institutions were included in the study for the following reasons: The Public Health Act, 2012 (ACT 851) requires the FDA to guide applicants on registering herbal products in Ghana. By its mandate, the Authority may cancel, suspend or withdraw the registration of products that flout the regulations. TMPC, on the other hand, regulates practitioners and the practice of traditional medicine while

TAM-D superintends all activities within the industry under the auspices of the Ministry of Health (MOH).

The full participation of these three agencies turned out to be crucial to the extent that the insights they provided helped explain the state's involvement in the development of traditional medicine in Ghana. Whereas the participation of practitioners, clients, community members of Mampong, and the KNUST Herbal Medicine Department helped answer questions on the Centre's influence in the development and practice of traditional medicine in Ghana.

Eighty-seven participants were interviewed, and interviews lasted 45 minutes on average. The table below shows the distribution of participants interviewed and the objectives of the interviews.

**Table 3.1: Participants and reasons for their selection**

| No. | Category of Participants | Mode of Interview | Number Interviewed | Objectives of Interview |
|---|---|---|---|---|
| 1. | Centre's Employees:<br><br>1. The director<br>2. Deputy director<br>3. The PRO<br>4.8 Heads of department<br>5. Clinical staff (5)<br>6. Interns from KNUST (2)<br>7. Production staff (1) | In-depth, key informant interviews and participant observation | 19 | To solicit information on:<br><br>1. The establishment and evolution of the Centre.<br>2. Centre's contribution to the development and practice of traditional medicine in Ghana.<br>3. Centre's relationship with regulators, community, clients, and practitioners.<br>4. The process of consultation at the Centre's clinic.<br>5. The reasons for OPD visits.<br>6. The nature of herbal remedies prescribed. |

| No. | Category of Participants | Mode of Interview | Number Interviewed | Objectives of Interview |
|---|---|---|---|---|
| 2. | Clients of traditional medicine:<br>1. Clients of the Centre (14)<br>2. Clients of other practitioners (10) | In-depth and key informant interviews | 24 | To solicit information on:<br>1. Reasons for choosing traditional medicine.<br>2. Why they patronize the services of the Centre. |
| 3. | Traditional Medicine Practitioners:<br>1. From practitioner associations (6)<br>2. In Mampong (6)<br>3. In Tamale (2)<br>3. In Damango (2)<br>4. In Nandom (1) | In-depth and key informant interviews | 17 | To acquire information on 1. Categories of practitioners and healing practices.<br>2. Their relationship with the Centre and regulatory institutions.<br>3. Socio-cultural factors that sustain the use of traditional medicine in Ghana. |
| 4. | Regulatory Institutions:<br>1. FDA (3)<br>2. TMPC (1)<br>3. TAM-D (1) | In-depth and key informant interviews | 5 | To solicit information on:<br>1. The state's involvement in the development of traditional medicine in Ghana.<br>2. The relationship between the regulators, the Centre, and practitioners.<br>3. The nature of their mandate, promotion of traditional medicine, regulation, and constraints. |
| 5. | Department of Herbal Medicine KNUST:<br>1. Faculty members (3)<br>2. Students (2)<br>3. Lab technician (1)<br>4. Teaching assistant (1) | In-depth interviews | 7 | To solicit information on:<br>1. The history of plant medicine research at the Faculty of Pharmacy.<br>2. The establishment of the Department of Herbal Medicine.<br>3. Training of medical herbalists.<br>4. Faculty's relationship with practitioners since they are involved in the analyses of herbal products in the country. |

| No. | Category of Participants | Mode of Interview | Number Interviewed | Objectives of Interview |
|---|---|---|---|---|
| 6. | Community Members of Mampong:<br>1. Chiefs/elders (5)<br>2. Community members (8)<br>3. Family of the late Dr Ampofo (2) | In-depth, key informant interviews and focus group discussions | 15 | To solicit information on:<br>1. The Centre's history, community's involvement in its establishment, and its relationship with the community.<br>2. Dr Ampofo's biography |

***Source: Fieldwork, 2019.***

### *3.3.1 Inclusion and Exclusion Criteria*

The inclusion and exclusion criteria deal with which participants to include or exclude mainly to answer questions on the phenomenon under study – Charmaz (2008) argues that grounded theorists are better off in the research field with a fair idea of the study area and the phenomenon under study than approaching the research with an 'empty mind'. Therefore, the researcher's prior knowledge of the field ensured that participants with in-depth information were selected.

The following criteria for inclusion were prepared: employees who had worked with the Centre for ten years or more; traditional healers who were collaborating with the Centre at the time of the study as well as those who did so in the past; medical herbalists and allopathic medical doctors who had received some training at the Centre; and clients of the Centre's clinic. All those who fell outside these stipulated categories were supposed to be excluded from the study. Despite the inclusion and exclusion criteria spelt out, the reality on the ground showed the need to adopt other methods to obtain more information. In the first place, it was realized that some of the key informants had not worked up to ten years as envisaged but could provide information due to their rich experience in the field of traditional medicine. Therefore, they were selected to participate in the study.

Secondly, the idea of traditional healers collaborating with the Centre to provide traditional medical care was a thing of the past. That kind of collaboration had ceased, and the former could not be traced as most of them had died. The researcher was reliably informed that the last of the prominent collaborators of the founder of the Centre (Dr Oku Ampofo) passed away in 2018, the year before this study began. Also, since the Centre started employing medical herbalists trained at KNUST, the provision of health care at the clinic has been fully taken over by them. No allopathic doctors were found working at the Centre in any capacity, except that the clinic had nurses, laboratory technicians, and a pharmacist. The study gathered that it was ideal to have a biomedical doctor around for emergencies, but those consulted declined to work at the Centre because they did not want to lose their biomedical knowledge.

This turn of events implied that the researcher had to quickly adjust to the situation and re-strategize to ask the appropriate questions to solicit correct information. This development made very practical some of the reasons why scholars have described qualitative research as emergent, fluid, flexible, iterative, exploratory, inductive, interpretive, data-driven, and sensitive to the context of the study (Babbie, 2005; Bryman, 1984; Mason, 2000; Neuman, 2014; O'Reilly & Kiyimba, 2015; Sinkovics & Alfoldi, 2012).

### *3.3.2 Selection of Participants*

Participants of the Centre were first selected purposively and constituted the first phase of the interviews. The Centre's participants formed the initial sample because the Centre is the focus of the study. Theoretical sampling took place after the first set of data was collected and analysed. According to Charmaz (2014, p.93), "theoretical sampling means seeking pertinent data to develop your emerging theory", and it is to elaborate and refine the categories to develop a theory. Through theoretical sampling, properties of categories are developed until no new properties emerge

(Charmaz, 2014). The theoretical ideas and concepts that emerged from the initial data gave the researcher some insights to identify the other categories of participants to be interviewed. These ideas helped the researcher determine who to select, where to place them, and what questions to ask to obtain more information to fill identified gaps (Ligita, Harvey, Wicking, Nurjannah, & Francis, 2019). Purposively, the following groups were selected: traditional medicine regulatory institutions, traditional medicine practitioners, clients of traditional medicine, Mampong community members, and the Herbal Medicine Department at KNUST. Individuals were purposively identified for interviews, and more participants were recruited by snowballing.

Theoretical sampling ensured that the researcher moved back and forth between sampling, data collection, and analysis until realised saturation. Data obtained across categories were also constantly compared (Charmaz, 2008). Constant comparison of data and theoretical sampling enhanced the study's rigour. The sample size was determined at theoretical saturation within the categories since the study was data-driven (Mason, 2000). Theoretical saturation determines when to stop data collection. Measuring saturation depends on assuming no new properties emerge from the theoretical categories (Charmaz, 2014).

### 3.4 Data Gathering

Even though data gathering in qualitative research requires flexibility, interviews and focus group discussions were conducted with the help of interview and discussion guides. Six interview guides were used to cater for participants (see Appendices 2 to 7). These guides consisted of open-ended questions, which enabled free responses from participants (Kumekpor, 2002). This was necessary because each category occupied a unique position in the study and provided information from

different perspectives to give a holistic picture of the phenomenon under study. Interviews were unstructured and semi-structured, depending on the category of participants. The distinction in the interview style was because qualitative research is fluid, flexible, and responsive to participant needs and context (Mason, 2000). Particular individuals were identified as key informants because they were experts or had first-hand information on issues discussed.

It is worth noting that, despite the use of question guides, the interviews did not follow any rigid pattern but were driven by the conversations that ensued between the researcher and interviewees. Two focus group discussions were conducted with the community members at Mampong. Community members who were the Centre's clients constituted one group of discussants. These included patients of the clinic, suppliers of plant parts to the Centre, retailers of the Centre's products, and those who bought medicinal products over the counter at the Centre. The second group did not patronize the Centre's services and community leaders. Data gathering approaches like participant observation, casual conversations and archival search were also used.

The Eastern Regional Archives at Koforidua and the National Archives in Accra, the nation's capital, and the J.H. Kwabena Nketia Archive at the University of Ghana were used. The archival sources provided historical information on the Centre's establishment and evolution, juxtaposing information with data obtained earlier from interviews. The archives also provided unique opportunities to retrieve memories of places, people, institutions, and social formations. Kofi Busia (2016), in his work (*Fundamentals of Herbal Medicine: History, Phytopharmacology, Phototherapeutics*, volumes one and two), provided historical insights into traditional medicine in Africa, India, China, the Middle East, Australia, South East Asia, North, Central, and South America. Busia's historical exposition of herbal medicine served as an additional impetus to visit the archives.

In addition to the above sources of information, memoirs of the late Dr Oku Ampofo with his family were made available to me. The memoirs proved to be a crucial resource in corroborating most of the information gathered through interviews and published materials. The mix of data collection approaches was to ensure adherence to the constructionist ideas upon which the study is anchored and ensure rigidity.

Charmaz (2008) outlined four assumptions of the constructionist grounded theory approach to data collection and analysis. These assumptions guided the study in data collection as explained below:

The first assumption holds that reality is multiple, processual, and constructed under particular conditions. In unity, the researcher appreciated and accommodated divergent views expressed by participants, considering peculiar circumstances and positions occupied.

Secondly, the research process emerges from interaction: implying data collection methods emerge through interactions between the researcher, research context, other researchers and available data. The method is, therefore, not entirely determined before the commencement of data collection. Following this understanding, the researcher began data collection with a few mapped out strategies and built up as field events unfolded. For example, interview guides were not loaded with questions, and questioning style and sequence were not rigid. The interaction between the researcher and participants flowed freely and the responses given determined how subsequent questions were framed and asked, as well as a further theoretical sampling of participants.

Hence deploying other data collection methods mentioned above and the Centre's library became necessary. As an institution, there were collections of documents or records that provided information about Mampong town itself and the institution and groups of people who worked there over the years. Contextual issues were critically observed and examined as they enhanced

interpretations and analysis of data. For example, there were documents on the Centre's beginning, influence on traditional medicine practice and the founder's biography, corroborating information obtained through interviews.

For participant observation, the researcher sat in some of the training programmes for practitioners at the Centre. One particular group were members of the Northern Sector Traditional Healers' Association. Interestingly they were drawn from various regions and not necessarily from the northern sector as the name implied. Some had come from Cape Coast, Takoradi, Accra, Techiman, and other parts of the Eastern region. Interacting with them confirmed practitioners join associations to qualify for a license to operate. This requirement was to ensure easy identification and management of practitioners due to their large numbers.

Charmaz's third assumption takes into account the researcher's positionality and those of the research participants. Moser (2008, p. 384) validates this assumption by arguing that "there are no neutral observers and no research is completely unbiased". As researchers get immersed in the research situation, their "positions, privileges, perspectives, and interactions" (Charmaz, 2008, p. 402) affect the knowledge produced in the end. The researcher did not ignore positionality, applying to researcher and participants in data collection and analysis (Charmaz, 2008; Moser, 2008).

Thus, instead of denying that they exist, these value positions were identified and examined in the research process to keep a balance. Accepting and dealing with values does not weaken results but, instead, makes explicit the extent to which positionality may lead to different dimensions of interpretation (Moser, 2008). The researcher, therefore, took into consideration all value positions,

preconceptions and ideas while looking out for socially desirable responses that came from participants as a result of their positionality and dealt with them accordingly in the analysis of data.

It follows from the fourth assumption that the researcher and the researched co-construct data, perceiving data as a product of the research process rather than observed objects of research (Charmaz, 2008). The researcher saw it as imperative to de-construct the notions of power and authority embedded in the relationship between researcher and study participants. Consequently, it allowed the strong voices of participants to be heard both in the research process and analyses by quoting them in the discussion of findings (Johansson, 2015). Practitioners, who have felt misrepresented over the years because their voices are muted in research, were given visibility. Sibido, a practitioner, actually reiterated at the end of an interview session, "please also write about the positive things you hear and see and not only the negative ones which have been the pattern". Even though Mampong was the main study area, some interviews were conducted with practitioners and clients in Accra, Sahenargu in the Northern Region, Damango in the Savanah Region, and Nandom in the Upper West Region to ascertain the influence of the Centre in the practice of traditional medicine in Ghana.

### *3.4.1 Data Processing and Analysis*

Interviews were handwritten, audio recorded with permission from participants and transcribed. Most of the interviews were conducted in English except for community members at Mampong, some clients, and practitioners. Three Ghanaian languages, Twi, Dagbani, and Gonja, were used for the interviews. Twi is a dialect of the Akan language predominantly spoken in the southern sector of Ghana. In contrast, Dagbani and Gonja are spoken in the Northern and Savana Regions of Ghana, respectively. No translators were used for the interviews since the researcher has a relatively good command of all three Ghanaian languages.

NVivo 12 Plus, a computer software programme for qualitative data analysis, was then used to analyse the data by loading all the transcripts onto the software. The NVivo 12 Plus is a powerful tool that helps generate and explain the codes and the themes that form the mainstay of qualitative data analysis (Sinkovics & Alfoldi, 2012). It offered the researcher a more detailed coding than manual thematic sorting would have done and provided a deeper understanding of the analysis process. It also offered the opportunity to actively go through all the processes involved in qualitative data analysis, grounded theory for that matter: organising and coding the data, establishing patterns, comparing data with theory, and identifying the broad themes under which findings are discussed.

It must be noted, however, that some grounded theorists do not support the use of computer programmes because, from their perspective, these programmes create restrictions and stifle the development of skills in data analysis (Rupsiene & Pranskuniene, 2010; Sinkovics & Alfoldi, 2012). Nonetheless, there is enough evidence of computer programmes aiding practical data analysis and building theories among qualitative data analysts. Thus, some grounded theorists like Charmaz, Straus, and Corbin support its utilisation (Rupsiene & Pranskuniene, 2010). This study has also demonstrated that computer programmes for qualitative data analysis can be instrumental if appropriately applied.

### 3.5 Ethics and Field Experiences

What is ethical may be explained as conforming to standards of conduct (Babbie, 2005). However, it must be emphasized here that ethical issues in research have much more to do than just following prescribed guidelines of conduct (Creswell, 2009). Therefore, these authors, among others,

acknowledge the fact that maintaining ethical standards in qualitative research is a daunting task (Iphofen, 2005). Consequently, the researcher is to anticipate and address all ethical issues emanating from the research process from the beginning to the end (Creswell, 2009). Notwithstanding, this study strictly adhered to institutional ethical standards and research ethics.

It is an institutional requirement by the University of Ghana to obtain ethical clearance, in this case, from the Ethics Committee for Humanities (ECH) before commencing fieldwork. In keeping with this standard, data collection was postponed until clearance was obtained in February 2019 (see appendix 1), even though all preliminary arrangements to commence had been made by December 2018. This proved to be a bit of a challenge because ECH has only six windows in a year to submit applications for clearance. Once a window is missed, it takes two months to meet the next. When the attempt to apply for clearance was not successful in October, the researcher had to wait till December to apply. Prearranged interviews with clients at the Centre and some employees, in anticipation of clearance in December 2018, were held until clearance was obtained. For participants of the study, all the necessary ethical protocols were observed before, during, and after data collection.

Since the study aimed to examine the development of traditional medicine in Ghana with the Centre as a focal point, the first point of call was the Centre. The field entry started with the presentation of a letter of introduction at the Centre. This ethical protocol was observed before entering all the other institutions participating in the study: FDA, TAM-D, TMPC, the Faculty of Pharmacy at KNUST, and the Greater Accra branch of the National Association of Traditional Healers. One of the key informants at the Centre happened to be an elder at the chief's palace. So he facilitated the community entry at Mampong when it became necessary to have some interviews

in the community. All the standard requirements were satisfied before interviews commenced with the chiefs and people of the community.

The elder informed each of the chiefs and elders about the purpose of the study and went ahead to book appointments on the researcher's behalf. Per the Akan tradition, the researcher had to present a bottle of schnapps each to the chiefs and elders before interviews commenced. The same procedure was followed to recruit community members, although no drinks were presented in their case.

Like any other bureaucratic organization, selecting participants for this research was cumbersome at the Centre and the other institutions. The use of names in direct quotations has been done with due diligence by using pseudonyms. However, there arose empowerment issues with some participants who wanted their real identities to be used because they were very passionate about the discussions that ensued. Notwithstanding, the researcher chose to keep them anonymous due to the sensitive nature of the information divulged and the possible repercussions beyond the researcher's capacity to handle it in the future. As expected in qualitative research, there were several encounters in the course of doing this fieldwork.

After the Executive Director introduced the researcher to his deputy, he, in turn, had to do a further introduction with some heads of the department whose areas were relevant to this work. It meant that the researcher could not select participants without the permission and supervision of the heads. For example, at the clinic department, the researcher always had to report to the head to talk to the nurses before they could assist in selecting participants for the patients' category. The nurses, on several occasions, either said they were busy or it was just not a good day for that exercise.

There was no way to negotiate this situation, and the researcher just had to work within the constraints.

Also challenging was the fact that people had fixed work schedules. In effect, several scheduled interviews were missed, either because participants had meetings or assignments outside their places of work. This made progress slower than was expected, but it was accommodated. Another experience was an incident at the Ghana Academy of Arts and Sciences. Information gathered earlier indicated that Dr Ampofo was engaged in activities with the Academy. He was supported to write a petition to the government for a possible establishment of a Centre.

Consequently, the researcher went to the Academy to verify this information. Unfortunately, the Academy had no record of such information. The only document made available to the researcher for verification was a book of the list of members/fellows of the Academy. It was emphasised by staff present that once Ampofo's name was missing on the list, he was not a fellow and therefore never had any engagements with the Academy. It was disappointing as the researcher hoped to find an authentic document to corroborate earlier information obtained through interviews.

It is vital to note that ethical issues in research have primarily centred on the research participants and the research process, ignoring the potential risk that the researcher may also be exposed to in relating with participants (Johansson, 2015). Also worth mentioning are the psychological effects of listening to and managing information on participants' private lives and the outburst of negative emotions such as anger, sadness, apathy, disappointment, and frustration, among others, by participants during interviews. O'Reilly and Kiyimba (2015) noted that qualitative research makes room for the depth of participants' information to be given to the researcher during data collection and analysis.

On one occasion, after the researcher had answered all questions on why the interview should be audio recorded, the participant was called by the Head of Department halfway through the interview. Surprisingly, he returned angrily, calling the researcher a liar, among other abusive words. According to him, 'his boss' did not understand why the interview was being recorded since earlier ones were not recorded. He also did not understand why he was being asked the same questions as his boss. Consequently, the researcher was ordered to delete the record, which was done before the interview could proceed. The simple explanation for this was that the boss was part of the first set of participants whose interviews were not recorded for fear of altered behaviour since the interviews were taking place in an institutional setting (O'Reilly & Kiyimba, 2015).

The reason for not tape-recording interviews at the beginning was reported at a departmental seminar on-field progress, and it appeared a bit odd. As a result, the researcher was encouraged to record subsequent ones. So, the researcher started recording the next phase of interviews but found it difficult with some participants, as in the case recounted above. That encounter and answering questions about why the interviews had to be recorded was discouraging and psychologically daunting.

Johansson (2015) notes that literature on power dynamics regarding the relationship between a researcher and research participants is silent on the researcher's vulnerability. Instead, it is assumed that the researcher occupies a more powerful position due to their status, and this may engender coercion to participate despite the right of participants to withdraw their consent at any point during the data collection process (Creswell, 2007; Mason, 2000; O'Reilly & Kiyimba, 2015). However, the above experience and several others encountered during fieldwork do not support this assertion but rather corroborate Johansson's position and show it is ethically unfair to the researcher. All the same, these did not impede the progress of interviews since they should be considered regular

occurrences in qualitative research. More so, the researcher is intruding in the private space of participants and must, therefore, be tolerant and accommodating.

With the outbreak of the COVID-19 pandemic came another dimension of ethical issues in social research. Ghana confirmed the first two cases of COVID-19 on the 12th of March, 2020. To curb the spread of the disease on campuses, all activities, including lectures, were suspended on the 15th of March 2020. Meanwhile, there was a need for more data collection to fill some gaps in the writing up of this thesis. With the new development, the dilemma was whether it was ethical for the researcher to put her life and the lives of participants at risk by going ahead to have face-to-face interviews as initially scheduled before the pandemic outbreak. It placed an additional responsibility on the researcher to protect participants from possible harm, which was a possible infection of the COVID-19. The researcher, to forestall this, resorted to telephone interviews which equally served the need of the time.

### *3.5.1 Reflexivity*

Since reflexivity in qualitative research calls for turning the investigative lens towards the researcher (Patnaik, 2013), my personal experiences during participant observation at the Centre, and the prior knowledge I had of the Centre, were not allowed to influence the interpretations in the grand scheme of knowledge construction. I got to know about the Centre in 2014 through a colleague who was an advocate of traditional medicine. He narrated how the Centre's herbal remedies were effective, particularly in treating enteric fever, which had been his reason for seeking medical care at the Centre. I was, therefore, encouraged to try their herbal products for a persistent health problem encountered at the time. Unfortunately, I did not find the medications effective and so I did not return to the Centre until I got the opportunity to conduct this research. Coincidentally, I fell ill during data collection and decided to seek health care at the Centre's clinic.

I made this decision because I wanted to experience afresh and understand what the clients at the Centre's clinic went through instead of relying on my previous knowledge, which could cloud my judgment. The grievances patients mentioned during interviews, paramount among which were prolonged waiting times and discrimination, were the same as my observations at my first OPD visit at the clinic. This participant observation found that others do not queue because they opt to use the clinic's fast track service, which costs thirty Ghana Cedis (GH₵ 30) instead of the usual fifteen Ghana Cedis (GH₵15). Management explained that the fast track service catered for busy workers who could not wait for long. I chose to use the fast track service.

A few weeks later, I used the standard service when my review was due, for which fifteen Ghana Cedis (15 GH₵) was paid. Waiting time was long, but it was worth it as I had time to talk with other patients while waiting, gaining insights into more of the issues patients hinted at in the interviews. It was a fully packed day as two consulting medical herbalists were away attending meetings in Accra. After reporting at 11:20 am, the opportunity to see the medical herbalist finally came at 4:00 pm. Yet, it could not be utilized because the researcher empathized with an older woman who, for obvious reasons, appeared more tired. Following this experience, I tried to explain the clinic's fast track service to some patients, but they would not understand. They suggested that the clinic solve the problem by keeping one consulting room for fast tract clients and building more structures to reduce waiting time.

Besides, others suggested establishing more clinics across the country since many of the Centre's clients travelled from other regions to access their services. The problem was compounded because the network was down, and they could not use the paperless system. After taking the vital signs, the nurses had to write them on paper for each patient instead of entering them on the computer and forwarding them to the medical herbalists concerned. This situation also created a problem as

the medical herbalists could not refer to patients' history before making decisions. In the researcher's case, the medical herbalist wanted to confirm whether the high blood pressure was consistent with the previous one recorded before further diagnosis and prescription. This constraint, in a way, frustrated the medical herbalist. As if that was not enough, the next option available to him, which was to request a lipid profile, was inaccessible because the laboratory had run out of some chemicals. It was related to a poor procurement system. So, requests were delayed unduly, despite the knowledge of its adverse effects on the clinic. Other issues came to the fore, which were incorporated in the analysis and discussion of findings in chapters five and six.

Of particular interest was an older woman who appeared to be over seventy years old and narrated her plight at a biomedical facility to a young lady who sat by her. She complained bitterly about the wrong attitude of the staff at that facility, generally and particularly about the young nurse who gave her a 'bad injection' which left her limping. According to her, she had an injury in the hip because the injection was not well administered. She had a swollen hip with severe pain, and that was why she decided to come to the Centre, hoping and praying that the herbal drugs would bring her the expected relief and healing. This particular incident was of interest to this study because the dominant discourse is that people use traditional medicine for various ailments and turn to biomedicine when the former fails with disturbing effects on the patient. Kidney and other organ failures have been attributed to prior use of traditional herbal medicine, for which patients are queried at biomedical facilities. This information was compared with information from other patients in further interviews and gave enough evidence to question the credibility of the dominant discourse, which maintains that traditional herbal medicine is ineffective with destructive effects on its users.

Another interesting observation at the clinic was a young white lady who appeared very ill and pale. She came to seek health care in the company of her Ghanaian husband. I was interested in interviewing her, but the husband was very protective because he realised all eyes were on them, which did not make it convenient for me to approach them. She was so sick and did not even have enough energy to stand without support. Everyone was fascinated as one woman exclaimed in Twi: "Obroni kora mpo ɛpɛ abibidro de asa neho yare na ɛntisɛ yɛn abibifo"(amidst laughter). It means, "even the Whites are seeking traditional health care, how much more we the Blacks".

On the other hand, an observation that left the researcher confused was that some injections are given at the Centre's clinic with orthodox medicine since there are no herbal injections yet. Upon inquiry, the explanation given was that herbal medicine does not work fast enough under emergency conditions. For example, the first dose of Artemether Lumefantrine is given to patients who report very severe malaria, and they are asked to proceed with the herbal drugs after eight hours. These issues have also been incorporated in discussions in chapter six on the Centre's influence in the development and practice of traditional medicine in Ghana.

Overall, the experience was intriguing and worth noting was the transformation from a researcher to a patient and the medical herbalist from a research participant to a medical consultant within the same space. I had to tactfully switch between roles and tried as much as possible to interpret the data gathered without interference, as far as my values and positionality were concerned.

## 3.6 Conclusion

This chapter has described and discussed the data collection methods of the study. It made explicit the philosophical assumptions that supported the researcher's preference for the selected methods. The qualitative methodology with its underlying assumptions has been explained with examples

of its use in studies that aimed at providing a deeper understanding of social phenomena as this study too sought to do. It gave the benefit of unravelling the intricacies in complex social relationships and patterns of interaction. It made available first-hand information on specific social phenomena, making it ideal for studying traditional medicine. The chapter also outlined the trajectory of the constructionist grounded theory espoused by Charmaz and how it was deployed in data collection and analysis.

Apart from using interviews, the chapter has also shown how other data collection methods like participant observation, focus group discussion, searching in the archives, and libraries for relevant documents were used for constant comparison of data. This triangulation helped reinforce the rigour of the study and enabled an analytically sound discussion of findings. The next chapter begins the discussion of findings and focuses on the establishment and evolution of the Centre.

# CHAPTER FOUR

# FROM *OBI-KYERƐ* TO THE CENTRE

## 4.1 Introduction

This chapter focuses on the establishment and evolution of the Centre, providing critical analytical points for understanding the rest of the chapters, especially concerning the current organizational structure, management, functions, and activities of the Centre. Pertinent discussions included in this chapter are the biographical data of the founding father of the Centre, an examination of his philosophies, the factors influencing the establishment of the Centre, and its gradual commercialization through mass production and sale of herbal products. The chapter explores the three major factors that influenced the founding of the Centre and concludes with a discussion on the gradual commercialization through mass production and sale of herbal medicinal products.

## 4.2 The Founder

Edward Francis Kwaku Oku Ampofo was born on a small cocoa plantation at Poomoo, close to Adawso in present-day Akuapem North District of the Eastern Region of Ghana, on 4th November 1908. His father was the chief of Amanase, Chief Kwasi Ampofo, and his mother was Madam Akua Adwo. Both parents were from Mampong – Akuapem in the Eastern Region. He started school in 1916 at Amanase Basel Mission Church School, which his father had built. In 1918, two years after enrolling at Amanase, his mother thought it wise to join his elder brother and sister to

continue his primary school at Mampong-Akuapem, where they lived with their maternal grandmother, Nana Afua Kare Oku[1].

When Ampofo completed his Lower Primary education in 1921 (Standard 3), his father enrolled him at the Anum Senior School, between thirty and forty miles away from Mampong. In Ampofo's days, basic education constituted ten years of elementary school. Three years of junior school (standard 1-3) was preceded by three years of infant school (class 1-3) and then four years of senior school (standard 4-7) (Atobrah et al., 2018). Akropong also had a Senior School where his older brother had been enrolled. So, the parents wanted a different experience for each of them. Also, in Ampofo's own words, they did not want him to be a "source of trouble" for his elder brother as he was a curious young boy. After graduating from Anum Senior School in 1925, Ampofo gained admission to Mfantsipim Secondary School at Cape Coast in 1926.

Four years after enrolling in Mfantsipim Secondary School, Ampofo was admitted into Achimota College in 1930. In Achimota, he distinguished himself academically. Thus, in 1932, after successfully competing with six others, he was awarded the first Gold Coast Medical scholarship to study medicine at the University of Edinburgh in the United Kingdom. While there, he developed a strong interest in the study of sculptures. To pursue this interest and study medicine, he switched from the University of Edinburgh to the Royal College of Surgeons and Medicine in 1936. Consequently, his scholarship was withdrawn as he had broken the terms, and he had to rely on his family back home to assist him financially to complete the course (Atobrah et al., 2018).

[1] Ampofo's memoirs in possession of his family, Undated

In 1939, Ampofo qualified as a medical doctor at the Royal College of Surgeons and was awarded a degree in medicine - L.R.C.P (EDIN), LRCS (EDN), LTFP &S (GLAS) (Atobrah et al., 2018). In his memoir, Ampofo indicated that he took short courses between March and July 1940 at the Karolinska Institute in Stockholm and the Liverpool School of Tropical Medicine. He returned, after the short courses, to the Gold Coast as a qualified medical doctor. Below is a picture of Ampofo's bust neatly showcased at the entrance of the Centre's clinic.

**Figure 4.1 Ampofo's Burst at the Centre**

***Source: Author, 2019***

### *4.2.1 The Founding Philosophy*

The philosophical foundation is relevant for a deeper understanding of its values and ideals (Searle, 2016). The quest for a deeper understanding of the world around us and human action has been the motivation behind the growth and evolution of modern institutions (Tsoukas & Chia, 2011). As observed by Tsoukas and Chia (2011, p. 1), an inescapable path in this quest has been the "gradual shift from an overwhelming reliance on brute force to the cultivation of reasoned curiosity and the consequent development of knowledge as a means of meeting basic survival needs and

attaining collectively desired ends." From this point of view, it is the expectation of how the world should be that guides the kinds of questions asked and the forms of explanations regarded as plausible, thereby linking emerging institutions to these modes of thought (Tsoukas & Chia, 2011). Consequently, studying institutions is inextricably linked to their conceptualization and subsequent establishment (Feierman, 1985; Tsoukas & Chia, 2011; Wayne, 2002).

From the above perspective, this study deemed it essential to examine the philosophy or thinking that guided the founder of the Centre, as he sought knowledge in the utilization of traditional herbs to augment the provision of health amid scarce biomedical resources in the early 1940s. Even though scholars report that by the 1920s, expanding medical care to rural Gold Coast had become an agenda for the colonialists, it was still woefully inadequate (Addae, 1996; Patterson, 1983; Schmid, 2018).

The philosophy behind the establishment of the Centre as espoused by the founder was based on discipleship, summarized by the Akan aphorism "*obi nnim' a obi-kyerɛ"*. It is translated as "another teaches him who does not know" and at a deeper level could mean "knowledge derives from learning." Being a trained biomedical doctor. At the same time, a person with deep faith in the therapeutic value of herbs, Ampofo did not miss the opportunity to combine medical knowledge from these two culturally distinct modes of healing to bring relief to the people of Mampong and its environs. Thus, like a disciple, he started collaborating with knowledgeable traditional healers at the time to acquire insight into herbal lore. This desire became even more urgent because of the unavailability of medicine to treat his patients' diseases. Serlom, a retired employee, explained the philosophy as follows:

> His clinic came to be called 'Obi-Kyerɛ' (someone teaches) because Dr Oku Ampofo used to visit healers for ideas when he started. He also brought some healers to his place to teach him what they knew and, in turn, shared his biomedical knowledge with them. Through

> these engagements, he adopted the proverb 'obi nnim a obi kyerɛ' (which means someone who doesn't know is taught by one who knows). He put up a signboard and wrote on it, 'Obi-Kyerɛ'. It was his approach to the learning of traditional medicine that brought about the name 'Obi-Kyerɛ'.

Years down the line, the image of 'Obi-Kyerɛ' stands at the gate, which unmistakably reminds visitors of the birthplace of the Centre, which now enjoys national and international recognition for its contribution to the development of traditional medicine. The picture below captures what remains of the original Centre.

**Figure 4.2: Ampofo's Obi-Kyerɛ**


***Source: Author, 2019***

In the beginning, Ampofo used his allopathic knowledge to diagnose diseases and conditions while the traditional healers prescribed and provided herbs for the patients. Through these collaborations, he acquired a lot of information on herbal lore. At the time, using two culturally different and often antagonistic health systems to effect treatment was a novelty. Participants at the Centre indicated that the Hippocratic Oath was the motivation behind the Obi-Kyerɛ philosophy adopted by the

founder, as he wanted to see his patients recover amid shortages of medical supplies. However, this is seen as contentious. A related study (Chary & Sargent, 2016) indicated that Western biomedical doctors saw recommending traditional forms of healing to patients as unethical – conflicting with the principles of beneficence and non-maleficence. To them, traditional modes of healing were not scientifically supported and were potentially harmful to patients in whose best interest clinicians were supposed to act. Notwithstanding, the discussions will soon reveal that Ampofo researched thoroughly to establish the scientific basis of the herbs' therapeutic value before being prescribed for patients. Science, therefore, drove the change in the mode of utilizing herbs.

Ampofo's philosophy supports that scientific knowledge may refer to particular techniques used to obtain particular results without ethical commitments. This demonstrates that the relevance of ethics lies in how knowledge is used and not how it is constructed (Tsoukas & Chia, 2011). The Obi-Kyerɛ philosophy still resonates in the Centre's activities and its relationship with traditional medicine practitioners, even though much has changed over the years. So, the part traditional healers played in the founding philosophy was to share knowledge on plants used, traditionally, to cure various diseases. On the other hand, 'scientists' were supposed to explain plants' therapeutic value and show practitioners how to use these plants safely.

Officials of the Centre, who participated in this study, explained that the Obi-Kyerɛ arrangement was a win-win situation at the very onset. At that stage, the collaboration was about working together and sharing healing knowledge to help the people. Sally, an official of the Centre, summed up the Obi-Kyerɛ principle in the following manner:

> For instance, in a traditional setup, neem leaves are boiled for a person with a fever, and the fever goes, but the herbalists cannot give a scientific explanation for this. A medical doctor can explain scientifically that malaria parasites cause fever in the person, and the

> neem could kill the parasites. Once the parasites die, the system is cleared, and the person gets well. This scientific knowledge is supposed to enhance their trade, and Obi-Kyerɛ sought to do this even at the rudimentary stage.

Notwithstanding, Sally admitted a lot had changed between healers and the Centre due to advancement in science and technology and the latter's transformation into a public institution. The factors that led to the establishment of the Centre, based on the founder's philosophy of Obi-Kyerɛ and its subsequent transformation, are discussed in the following sections.

### 4.3 No Hospital for the Doctor

Ampofo's return to the Gold Coast after medical training coincided with two critical historical occurrences that contributed to conceptualizing and establishing the Centre over time. These were the emergence of radical nationalism and the outbreak of the Second World War. Agitation for independence was also gathering momentum during the period. Much of the agitations seemed to have mainly been influenced by economic and social factors. Still, they were articulated by the African intelligentsia, made up of educationists, lawyers, and doctors. Even though there were sharp differences between Europeans and Africans in the Gold Coast, the struggle for independence brought the worst out of British Medical Officers and administrators of the Colony (Patton, 1989).

Racism had characterized the Colonial Medical Service, making it difficult for the few African medical doctors to gain positions in the few government hospitals. Those who did had to do with any posting and position given them (Addae, 1996; Evans-Anfom, 1984; Feierman, 1985; Patton, 1989). As Feierman (1985, p. 121) noted:

> The objections to African doctors were that Africans might achieve positions where they could give orders to white officers and that the races would mix at the mess table. But there

> might also have been fears that it would be difficult to challenge African doctors who were able to argue with full technical authority on matters of social and economic policy, for example, the health consequences of labour recruitment or of urban segregation.

This fear by the colonial authorities was premised on the fact that the early generation of African doctors had exceptional knowledge and an awareness of public health issues and environmental determinants of health (Feierman, 1985; Patton, 1989).

In the case of Ampofo, he never was assigned to any government hospital despite his initial applications to be posted; there was a deliberate attempt by the colonial authorities to frustrate him. In his memoir, Ampofo recounted how the Director of Medical Service at the time laughed at him and said there was no vacancy for African doctors yet in the service. This was how Ampofo narrated his ordeal:

> In visiting the Director of Medical Services, he laughed when I told him I wanted to join the medical service. He said rather brusquely that there was no vacancy for African doctors yet. This upset me because I travelled with two British classmates on the same boat, and they were admitted straight into the service, allocated hospitals, given cars and bungalows whereas another African classmate of mine was waiting for his appointment. I took this statement of the director as a challenge because I had originally intended to work among my own people in Akuapem.

The failure of the Director of Medical Service to offer Ampofo an appointment may be described as a deliberate attempt to frustrate him because several scholars have reported the fact that the Gold Coast had a shortage of qualified medical staff in the 1930s with a lot of vacancies created in the service. Schmid (2018), for instance, unequivocally notes that there was a considerable decrease in vacancies in the 1930s because of the austerity measures put in place by the medical authorities in British West Africa. As a result, they had difficulty recruiting qualified staff when vacancies rose again from the mid-1930s. According to him, this problem with recruitment

stemmed from the fact that the health service in West Africa had become unattractive because of a downward revision of salaries paid to Medical Officers.

Meanwhile, by 1938 it was explained that the unification of the health service by creating the Unified Colonial Medical Service also had a debilitating effect on the prospects of the medical profession, rendering it unattractive among European Medical officers (Schmid, 2018). Therefore, given these facts, there was no impediment as far as recruitment was concerned, especially when Ampofo had been the first indigene to be awarded a government scholarship to study medicine. Ampofo was, therefore, compelled to go into private practice. He returned to his native town of Mampong in the Eastern Region to establish his clinic. The family made available to him a storey-building. The top floor was his residence, and the ground floor became the clinic, which had mainly a consulting room, a dispensary, an injection room, and a store.

He recruited two girls he trained as nurses and a trained pharmacist – a former employee of the Basel Mission hospital at Agogo. He had been laid off because the hospital was closed down following the outbreak of the Second World War. Although established by Switzerland's Basel Mission, the Agogo Hospital became a 'German hospital'. Consequently, the association of the hospital with Nazi activities served as the spur for closing it down during the Second World War in September 1940. The hospital's final closure followed a temporary one that started when Britain declared war on Germany on 3rd September 1939 (Schmid, 2018). Ampofo, in his memoirs, also recounted how he later got some drugs from the closed hospital to restock his dispensary.

Ampofo indicated that work formally began in his private clinic in the first week of September 1940 at Mampong. The clinic handled several cases, including malaria, chest infections, infectious diseases in children, yaws, venereal diseases, typhoid fever, ectopic pregnancy, pneumonia, and skin diseases. Most of the patients had to walk many miles to Mampong to access health care.

Occasionally, some cases were referred to the Korle Bu and Koforidua hospitals and a small private hospital in Accra owned by a colleague, Dr W.A.C. Nanka-Bruce.

Because some patients had to come from far and wide, Ampofo established outstations of his clinic in several places. Participants pointed out that the out-station in Suhum became the most successful. Its success was due to the visibility that Suhum gained as an important commercial town. Much of the cocoa beans produced in the neighbouring towns and villages were brought there for sale (Gray, 2001). Suhum's popularity attracted several migrant farmers, among which included Ga-Dangme and Ewe farmers. The cosmopolitan status that Suhum came to assume also reflected in the patients that visited the clinic.

In Mampong and the outstations, Ampofo came into contact with some traditional healers, mainly through his patients. By taking patients' medical history, he learned some visited healers before coming to him. As participant Papa Yaw indicated, "they always told him (Ampofo) that they had been to such and such a place for a herbal treatment. Some even said that the legs of their sicknesses were already broken; they were only coming to him to finish their ailments off with injections". In most cases, Ampofo would follow up or invite the healers to show him the herbs they administered to the patients. Such enquiries were not meant to vilify patients or healers but to enable Ampofo to understand patients' complete medical history and efficacy or otherwise of herbs.

Ampofo's practice also coincided with the outbreak of the Second World War, as indicated already, which impacted medical delivery in the Gold Coast. Medicines were short in supply due to the colonial administration's supply of drugs for the war effort rather than general public health (Agyei-Mensah & Aikins, 2010; Patterson, 1983). Also, the depression due to the bubonic plague and influenza epidemic in 1908 and 1918 –1919, respectively, was exacerbated by the First and

Second World Wars. The quality of health services was adversely affected. The health budget was reduced significantly because British finances concentrated on tackling these global crises (Agyei-Mensah & Aikins, 2010; Patterson, 1983). Due to budgetary constraints, the Colonial Office often took preventive measures to control diseases than committed resources to solve health problems in the colonies (Amo-Adjei et al., 2015-2017). For example, Amo-Adjei et al. (2015, p.98) reported thus:

> Notwithstanding the recognition that TB was a burden in the Gold Coast, a 1928 request to the Colonial Office in the UK to fund the construction of segregated ward or a sanatorium for TB was declined on the basis of medical efficiency and the need to rather promote general public health which was anticipated to have longer-lasting effect than the sanatoria approach. The total amount requested was £29,550 and additional £4,336 for hiring personnel and maintenance for the first year which were to be included in 1928- 29.

All these measures were because the shipment of goods, including drugs, risked being attacked by the enemy. Therefore, the few drugs available were reserved for critical cases only since the colonial administration could not anticipate the end of the War. Improvisation became necessary in most instances.

There was the case of a patient who was infected with tetanus, and Ampofo had no drugs to treat him. All stores in Accra and the rest of the country had run out of the vaccine. He indicated that placing an order from Britain would unduly delay because of the War (Atobrah et al., 2018). He told the patient the problems he was facing regarding treatment. Rather than getting discouraged, the patient told Ampofo that he would go to his uncle, a traditional healer, for treatment. The patient went to Opanyin Kwaku Poku, who lived in a community called Ahyeam between Tutu and Mampong. He was one of the several renowned healers that Dr Ampofo consulted later in his study of plant medicine. The rest were Opanyin Kwasi Adae, Opanyin Kofi Addo, Opanyin

Kwame Awuku, Alhaji Sidi Biney, and Opanyin Nyampon, a bonesetter. They also had two traditional birth attendants, Maame Kyeiwa and Maame Addae.

Ampofo's 'tetanus patient' returned a few weeks later in a much healthier state. He then followed up with the healer to learn more about the health potions he gave to the patient, whose survival Ampofo had considered a matter of chance. Ampofo kept on consulting the healers for a deeper understanding of their herbal practices. It was the necessity for the harmonization of the knowledge of traditional medicine that eventually led to the establishment of the Centre. Ampofo's collaboration with healers was perfectly captured by his colleague, Dr Emmanuel Evans-Anfom, during his practice as a medical doctor in the early 1950s (Evans-Anfom, 2003, p. 200):

> I went out and spent short periods at various places including our family house at Mampong – Akwapim. During that period, I did a ten-day locum for Dr Oku Ampofo who had a practice at Mampong and dispensaries in various places in the Akwapim area which he visited from time to time. It was during this ten-day period that my interest in traditional medical practice was aroused. In Dr Oku Ampofo's absence, I had a few traditional practitioners whom Dr Ampofo had been on very good terms bringing different kinds of medicinal herbs to show him. I gathered later that Dr Ampofo had for some time been doing research into these medicinal herbs and their application and had established a very good rapport with the traditional medical practitioners. Oku Ampofo's interest was sustained, and it led eventually to the establishment by the Government of the Centre for Scientific Research into Plant Medicine at Mampong.

It is clear from the discussions so far that it was due to the frustration Ampofo went through in his quest for employment into the Gold Coast Medical Service that compelled him to establish a private clinic. The difficulty in getting medicines to treat his patients due to the Second World War and his interest in traditional medicine made him research. As we shall soon find out in subsequent chapters, this informal relationship with traditional healers enabled the development of several herbal preparations at the Centre. The following section discusses Ampofo's interest which led him to research deeply into the therapeutic value of plants.

### 4.4 The Doctor's Interest in Traditional Medicine

Ampofo's interest was the main factor that pushed him to research more into herbal medicine. Most African medical officers of his time chose to concentrate on their allopathic medical practice despite all the challenges (Addae, 1996; Evans-Anfom, 1984; Patton, 1989). To this effect, Feierman (1985) noted that away from the colonial service, most of the African doctors "provided private care for the tiny elite of urban Africans" (p. 121). Opanyin Kwadwo, a participant, recounted how he met Ampofo during his meetings with one of the prominent healers in the following words: "I met him (Ampofo) in 1959 when I fell sick and went to Nana Opoku for treatment. I realized that Dr Oku and Nana Poku were friends, and he visited him regularly. Dr Oku Ampofo was much interested in traditional medicine, so he teamed up with Nana Poku". Ampofo's decision to turn to traditional medicine was considered radical because using herbs after being trained as an allopathic doctor was quite unusual.

Furthermore, the advent of Christianity and Western education, which were significant drivers of social change in Africa, spelt the doom of African traditional culture, including indigenous knowledge forms of which traditional medicine was a component (Mumo, 2018). Missionaries demonized many aspects of the African way of life. Thus, Christian converts were prohibited from partaking in traditional festivals, funerals, and healing characterized by inexplicable rituals to the missionaries (Abdullahi, 2011; Mumo, 2018; Nukunya, 2016). One of the debilitating effects of Western education and Christianity was the alienation of Christians and the educated elite from traditional beliefs and practices. Nukunya (2016) notes the heavy presence of missionary activities in the Akuapem area, of which Ampofo was an indigene and a Christian convert who enjoyed education provided by the Basel Missionaries.

These transformations adversely affected the image of traditional medicine and made the elite distance themselves from the practice. Thus, these reasons were enough for Ampofo – an educated elite, a Christian convert, and a member of the prestigious medical profession – not to want anything to do with traditional medicine, much less develop an interest in its practice.

Ampofo, nonetheless, was impressed with the efficacy of the traditional herbs and devised a scheme of finding out plants used for various diseases and their names among the Akan, Ga, Guan, and Ewe people. Specific interests were on the leaves, bark, roots, seeds, or the flowers of plants and their relationship to treatment (Ampofo, 1983). With time, he developed a handwritten herbal pharmacopoeia. His investigations were not limited to material matter and the preparation mode of herbs, especially with the number of herbs and volume of water to boil or macerate it. This knowledge served as a guide for working out the usual dosage for patients in every case of healing at the Centre.

Participants also pointed out that the personal interest Ampofo had was borne out of his family's health problems. His wife had problems related to childbirth, and several treatments with biomedicine seemed not to have worked. Therefore, his consultation with traditional healers allowed him to find some remedies for the health issues that confronted him. In a personal testimony, Ampofo intimated on the problems related to childbirth:

> We used the opportunity of going to England in 1948 in investigating our sterility problem. We had been married since 1943, and within five years, we did not have any children. We were both thoroughly investigated, and there was nothing found out of the way. While we were in London, she took seed and miscarried. However, when we returned in 1951, she took seed again and then went to Korle Bu to have her baby, a baby boy who died after three days.

Even though they had two unpleasant problems related to childbirth, Ampofo and his wife were relentless in their quest for a solution, using both Western and traditional medicine. In 1955 Mrs

Ampofo conceived, and towards the end of the pregnancy, she decided to go to England to have the child, where she was successfully delivered of a baby girl. Two years later, it was discovered that she had homozygous sickle-cell disease (SS). Ampofo was not surprised because he and his wife were both carriers of the sickle-cell gene. Several attempts were made for a solution to the daughter's problem but without much success. Indeed, one could surmise that Ampofo's wife's encounter with life-threatening health problems, including miscarriages and neonatal mortality, together with the sickle cell, contributed to his interest in 'alternative medicine'.

It is important to note at this point that Ampofo was eventually invited to work at the Tetteh Quarshie Memorial Hospital at Mampong since he had been very instrumental in its establishment. Information from the archives revealed that the chiefs and people of Akuapem appealed to the Gold Coast Cocoa Board to establish a health facility in honour of Tetteh Quarshie, who reportedly contributed to Ghana's economic development by bringing cocoa into the country. By establishing the hospital, his legacy would permanently and physically be registered in Mampong, where he established his cocoa farm.[2]

From its conceptualization in 1952, laying the foundation stone in 1959, and its operation in 1962, Ampofo played a key role. The fundamental question then is that if Ampofo was influential in establishing the hospital and became its first medical doctor, what was his motivation for resigning to focus on his own herbal Centre a few meters away? After the Community Centre was built at Mampong, the community decided to offer Ampofo a more prominent place to operate his clinic, where Obi-Kyerɛ started.

[2] Public Records and Archives Administration Department (hereafter PRAAD), Koforidua, ADM/KD1/8/4, Tetteh Quarshie Memorial Hospital Management, 1954-62

Ampofo had to pay the price for his commitment to traditional medicine research while still working at Tetteh Quarshie Memorial Hospital. Since he was fully engaged at the hospital, he ran his clinic part-time and engaged in plant medicine research. Consequently, he asked for a day off in a week, but it created problems between him and the other medical doctors because they thought he was wasting his time working on traditional medicine. His salary was even slashed, but this did not cause his interest in traditional medicine to wane. Ampofo intimated in his memoir:

> When I was working at Tetteh Quarshie Memorial, I asked for a day off, Wednesday, to research traditional medicine. I know this created many problems between the other doctors who thought I was wasting my time. I was given ₵300 (Three Hundred Cedis) a month instead of ₵600 (six hundred cedis). This cost me financially because I was refused my full salary. But I took this coolly because I knew what I was doing. I carried on with my research while at the same time treating patients with western medicine at the hospital.

While Ampofo committed efforts to his work and research at the Centre, President Nkrumah recognized his efforts and showed interest in promoting traditional medicine through Ampofo's activities. The following section focuses on the state's interest in developing traditional medicine in Ghana by establishing a Centre for traditional medicine based on Ampofo's ideas.

## 4.5 The State's Interest in Traditional Medicine

If there was another factor that firmly influenced the establishment of the Centre, apart from the interest of Ampofo and the conditions that surrounded his employment, then it was the interest of post-colonial governments. Dr Kwame Nkrumah (1957-1966) and Colonel Kutu Acheampong of the National Redemption Council (NRC) (1972-1975), notably, showed interest in the development of traditional medicine in the country (Osseo-Asare, 2014).

When Ghana finally gained independence in 1957, Dr Kwame Nkrumah showed much interest in traditional medicine. Nkrumah's interest was influenced by pan Africanist ideologies, which he

well expressed on several platforms (Droney, 2014). For him, decolonisation was not only a political game but was also about a mind-change. Thus, at the inauguration of the Institute of African Studies at the University of Ghana in 1963, Nkrumah stated:

> We must regard education as the 'gateway to the enchanted cities of the mind' and not only a means to personal economic security and social privilege. Indeed, education consists not only in the sum of what a man knows or the skill with which he can put this to his advantage. In my view, a man's education must also be measured in terms of the soundness of his judgement of people and things and his power to understand and appreciate the needs of his fellow men and to be of service to them. The educated man should be so sensitive to the conditions around him that he makes it his chief endeavour to improve those conditions for the good of all.[3]

It is essential to add that beyond the Pan-Africanist orientation of Nkrumah, his interest in traditional medicine was also due to a personal encounter with a healer at Larteh near Akropong in the Eastern Region. Archival records indicated that Madame Ekua Oparebea, a traditional priestess at Larteh in 1961, treated Nkrumah of a chronic "head, chest, cough and sneeze with herbs." The success of this treatment resulted in the State paying the healer two hundred British pounds at that time. Nkrumah, therefore, supported every move that was geared towards the development of indigenous medical knowledge systems. He charged the University of Science and Technology (UST) to undertake extensive research into plant medicine with these ideas.

At the time of British Rule, the Native Physicians Control Bye-Laws governed traditional medical practice. These laws resulted in several challenges in the development of traditional medicine and its practice. For example, in the 1940s, the Secretary for Native Affairs had indicated his displeasure at the proliferation of traditional medicine practice facilities and the pressure that healers brought on the administration for official recognition. He stated, "I am not in favour of any

[3] J.H. Kwabena Nketia Archive University of Ghana, Legon, IAS/3/1/44, Nkrumah Papers, No date

bye-laws or licensing system which will imply official recognition and licensing authority that the licensee was a fit and proper person to practice medicine." Consequently, Nkrumah sanctioned the establishment of the Ghana Psychic and Traditional Healing Association in 1962.[4]

Because biomedicine was still in its embryonic state in the colony, the Secretary for Native Affairs considered it necessary to popularize it instead of traditional medicine. It was to avoid the possibility of people visiting traditional healers instead of the health facilities established by the Colonial Administration. Indeed, there was a correlation between the disregard for African doctors trained in Europe (including Ampofo) and how colonial administrators perceived traditional medicine. The attitude of the colonial establishment regarding traditional medicine subsequently influenced Ampofo's thoughts in founding the Centre in later years.

Unlike the Colonial Administration, the first President of Ghana showed tremendous interest in developing traditional medicine. As a result, Nana Oparebea, a traditional healer from Larteh in the present-day Eastern Region of Ghana, Mr Mensah Dapaa – an MSc holder and a Research Fellow of the Academy of Arts and Sciences – and Osagyefo Dr Kwame Nkrumah held discussions regarding the need to develop traditional medicine by harnessing traditional knowledge systems of healing in the country. Subsequently, on the 7th of April 1962, the Ghana Psychic and Traditional Healing Association was inaugurated at Larteh by the then Minister of Health, Mr A.E. Inkumsah.[5]

[4] PRAAD, Koforidua, ADM/KD 6/9/496, Herbalists Rules, 1948

[5] PRAAD, Koforidua, ADM/KD/31/6/684, Ghana Psychic and Traditional Healing Association, 1963- 64

It is necessary to point out that European administrators initially reduced ill-health, especially mental health or neurosis issues, to a state of imbalance arising out of poverty and illiteracy. However, the healing provided in shrines, including 'Brukum' and 'Hwemisu' involving plants, guaranteed some cure of sickness in body and mind.[6] This success made the colonial administrators reconsider their thoughts, even though not in a permanent sense, on the issue of ill-health and medicine in the African's understanding. For, 'fetishes' were avenues through which people found healing without necessarily involving witchcraft, something biomedicine could not accomplish satisfactorily (Twumasi, 2005). Regarding this point, Twumasi (2005, p.168) rightly concluded thus:

> The limited utility of scientific medicine in the area of mental illness leaves open a relatively permanent area of chronic non-capacitating ills within which traditional medicine may survive and may continue in a complementary structural position, at least in the rural setting. This point is predicated on the idea that in the field of psychiatry, traditional medicine or its functional equivalent will continue to operate in this area.

Indeed, this was the position of President Nkrumah when he formed the GPTHA and sanctioned the group to bring on board all expertise in traditional healing to meet the health needs of the Ghanaian populace. As it was said, the GPTHA had the blessings of the President to "uphold, protect and promote the best in the traditions invested by the ancestors in the Indigenous Priest Healers including priestesses and herbalists in Ghana" (Adu-Gyamfi, 2015, p. 59).

Participants indicated that Nkrumah's ideas, experience, and quest for research into African curative systems led him to Ampofo. He had heard of Ampofo as a scientist committed to traditional medicine research. So, he asked the then Vice-Chancellor of UST, Dr Robert Baffour, who led the team of plant medicine researchers at UST, to add Ampofo to the team. As stated

[6] PRAAD, Koforidua, ADM/KD 29/6/69, Fetishes and Charms, 1930

already, Ampofo had to do this part-time because he had been fully engaged at the Tetteh Quarshie Memorial Hospital at Mampong. Contributing to the success of Ampofo's research was the fact that Nkrumah ensured he was well resourced to undertake the task. He was given a vehicle to get to the hard-to-reach areas and an honorarium for his respondents.[7] Incidentally, Dr Baffour also had a keen interest in traditional medicine because of his personal experience of its therapeutic value, just like Ampofo and President Nkrumah. Baffour intimated that he would have lost his sight but for the intervention of a traditional healer.[8] So, he encouraged the research work that was being done at the UST School of Pharmacy.

Again, in recognition of Ampofo's commitment to the development of traditional medicine, the President, in 1963, made him the leader of a team of experts that visited China to study Chinese herbal medical system for possible replication in Ghana. It was a conference for developing countries from Africa, Asia, and South America. Ampofo and his team had the opportunity to visit Chinese hospitals where traditional Chinese medicines were used for various forms of treatment.[9] The experience was a great source of hope and encouragement for the Ghanaian team. Thus, immediately after he returned from China, Ampofo persuaded the president to establish a Centre for traditional medicine. Ampofo's proposal was in line with Nkrumah's ideas since the President had mapped out the strategy for research into traditional medicine when he established the GPTHA. Unfortunately, the idea of the government's support to build a traditional medicine Centre, based on Ampofo's ideas and Chinese experience, did not materialize due to the ousting

[7] Memoir of Dr. Ampofo, Undated
[8] Ibid
[9] Ibid

of Nkrumah's government from power in 1966.[10] Having established the three most influential factors in the establishment of the Centre, the now turns attention to the process involved in its establishment.

### 4.6 The Centre

After the overthrow of Nkrumah, Ampofo approached two subsequent governments after him, but these did not yield any fruitful results until the coming into power of the National Redemption Council (NRC) in January 1972 (Droney, 2014; Osseo-Asare, 2014). Together with a team, including representatives from the Ghana Academy of Arts and Sciences and the Ghana Psychic[11] and Traditional Healers Association (Bremfi, 2017), a proposal was submitted to the NRC government for the establishment of a national Centre to facilitate and co-ordinate all researches on medicinal plants in Ghana. The NRC government accepted the idea of a Centre for traditional medicine due to its inclinations towards indigenization, especially on agricultural policies to make Ghana self-sufficient in food production (Leith & Söderling, 2000). As rightly observed by Gray and Hetherington (2013), indigenization has to be sensitive to local cultures and contexts. Against this backdrop, plans to establish the proposed Centre was started earnestly.

The then Commissioner of Health, Colonel Adjetey, was very instrumental in this regard. Through his efforts, the Centre started receiving support from the government until it was officially established in November 1973.[12] A decree (NRCD 344) was enacted in 1975 to give legal backing to the operations of the Centre. The Centre was given a specific mandate because of state interest

[10] Memoir of Dr. Ampofo, Undated
[11] Attempts to get detailed information concerning Ampofo's involvement with the Ghana Academy of Arts and Sciences at their office yielded no positive results, as there were no records to that effect. It was indicated that he was not an appointed fellow of the Academy
[12] Memoir of Dr. Ampofo, Undated

in developing traditional medicine to make it a component of mainstream health delivery in Ghana (CSRPM, 2000).

Ampofo indicated that after work started officially in 1973, the government decided in 1976 to build a new place to house the Centre. The new site was just about one hundred and fifty meters away from Obi-Kyerɛ. The land for the new site, which initially belonged to the Asenie Clan of Mampong, had earlier been given to the government by the town's chiefs for developmental projects. Therefore, it is noteworthy that Obi-Kyerɛ did not fold up for the newly established government institution to start its operations; Obi-Kyerɛ, essentially went through institutional transition, where a privately owned institution transitioned into a government Agency under the Ministry of Health.

Apart from the fact that Dr Ampofo had laid the foundation for the Centre's establishment, certain critical factors were also considered in siting the Centre at Mampong. Among these was the availability of the communication system and water and some problems at the Tetteh Quarshie Memorial Hospital. Mampong was suitable because the road network connected it to several places where Ampofo was already working. For example, from Mampong, one could easily reach Accra, Akropong, Nsawam, Suhum, Koforidua, and Dodowa, among others. This factor was considered necessary because, as already observed, Ampofo was in touch with several healers who were from these towns and neighbouring settlements.

Water availability was critical because some herbal preparations required water; plant parts had to be washed before being crushed and boiled. There were three water sources close to the Centre. The Opeapim Pool, the Oteme Well, and the Apraku pond. Opeapim was on the western side of the Centre and was just about a quarter of a mile away. It was a good source that had not dried up for several years. Oteme well was on the Centre’s eastern side, about one-quarter of a mile away.

Apraku pond was dug in the stream bed on the western side of the ridge and was in the southern part of the town. Besides these three sources, several other streams passed under the road in Aburi. Also, some streams were located just about half a mile away from Akropong.

The third factor considered had to do with the lack of medicines at the Tetteh Quarshie Memorial Hospital, as was the case in all the country's health facilities. A few years after the establishment of the Hospital, it started experiencing different problems, including theft and lack of medication.[13] As stated above, the Centre was given a specific mandate. The following section, therefore, focuses attention on the core mandate of the Centre.

### *4.6.1 The Core Mandate of the Centre*

The first mandate of the Centre was to conduct and promote scientific research relating to the improvement of plant medicine. In this light, members of the GPTHA were supposed to feed biomedical practitioners of the Centre with knowledge in traditional medicine.[14] This idea did not work when the Centre was finally established because the healers were secretive and sought to protect their knowledge. Their knowledge was their private property, making it very difficult for anyone to get information from them. However, Ampofo, with his research expertise, had already obtained considerable and valuable information from the healers he had earlier contacted.

The Centre was also mandated to ensure the purity of drugs prepared from plants since there was, and still is, a widely held perception that traditional healers do not prepare their medicines under hygienic conditions. It was one reason that made traditional medicine unattractive to some people. As Addae-Mensah and others have argued, the development of traditional medicine should not be considered the answer to providing cheap treatment to poor populations. Instead, it should be

[13] Star No.15, 30th July, 1969
[14] Memoir of Dr. Ampofo, Undated

scrutinized just as pharmaceuticals to protect people from adverse effects and ensure maximum efficacy (Addae-Mensah et al., 2011).

A third mandate of the Centre enjoined it to cooperate and liaise with the GPTHA, research institutions, and commercial organizations in any part of the world in plant medicine. This mandate has been the pivot of the Centre's activities. Unfortunately, governments have not been committed to providing funds for its accomplishment. So, the Centre is described as a site of lack, manifesting in its laboratories. Yet, it is a legacy of Ghana's independence era, an embodiment of high optimism about modernizing Africa (Droney, 2014).

Notwithstanding, officials of the Centre intimated that the institution had made great strides in keeping to this mandate. There is sufficient evidence to prove that it is the only one of its kind in the West African sub-region. In this regard, it has served the needs of various countries in matters concerning plant medicine research. Further, the Centre was to undertake and collaborate with stakeholders in the collation, publication, and dissemination of the results of research and other helpful information to establish botanical and medicinal plants' gardens where necessary. Finally, it is to perform such other functions as the government assigns it from time to time. The impact the Centre has made in fulfilling its core mandate is discussed in detail in Chapter six.

The Centre's governing body was a Council, established by the 1975 Decree (NRCD 344). Members were selected from areas concerned with the Centre's functions or dissemination of produced knowledge. It was assigned the following responsibilities: custody, control, and use of the common seal of the Centre; encouragement of the use of medically proven preparations as adequate substitutes for conventional drugs; advising the government on the preservation and the restriction of the exportation and importation of certain medicinal plants; proper management and

administration of the revenue and property of the Centre and maintain general control over the conduct of the affairs of the Centre (CSRPM, 2000).

Ampofo was the first Director of the Centre from 1973 to 1983 and later became a consultant from 1987 until he died in 1998. The Centre for Scientific Research into Plant Medicine Decree, 1975 (NRDC 344) was replaced with The Centre for Plant Medicine Research Act, 2011(ACT 833). The Centre had evolved over the years and added on many functions that needed to be legitimized. Its evolution and the effects therein become the focus of the rest of the discussions.

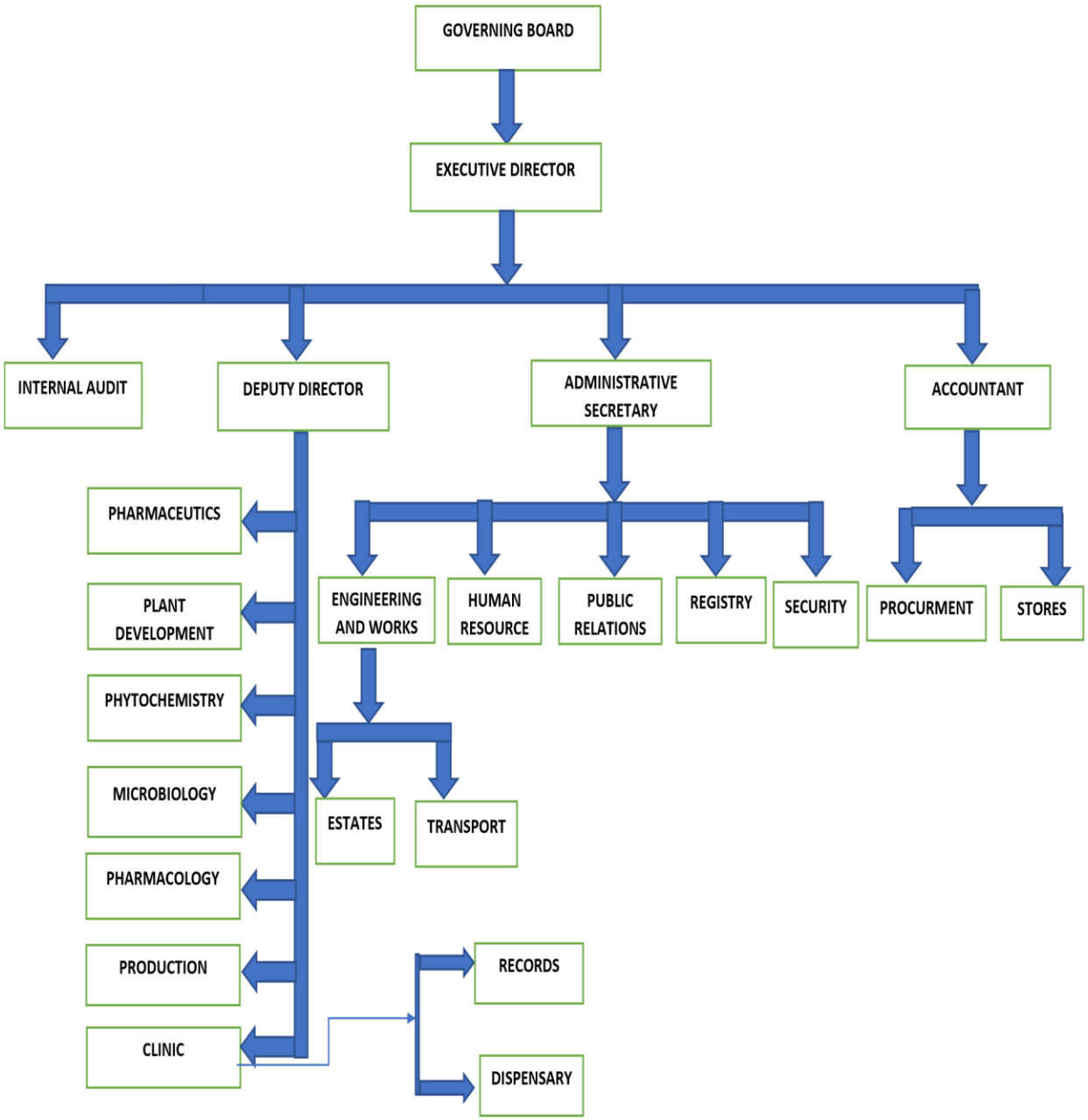
## 4.7 The Centre's Evolution

Currently, the Centre's governing body is a Board whose members are appointed by the President of the Republic of Ghana per article 70 of the 1992 Constitution of Ghana. Its primary responsibility is to ensure the proper and effective performance of the functions of the Centre (Act 833, 2011). When the Centre formally started its operations at Obi-Kyerɛ, it had only one laboratory. The quest to improve the quality and standard of products allowed several departments with well-equipped modern laboratories to be added over the years. The Centre now has six research departments researching at various levels and a Production Department responsible for preparing herbal drugs. Phytochemistry, Pharmacology and Toxicology, Microbiology, Pharmaceutics, Plant Development, and the Clinic constitute the research departments. The Scientific Information department acts as the interface between the Centre and the general public. It coordinates all the activities of the research departments and is responsible for disseminating information through seminars, workshops, conferences and publications.

At the top of the organizational structure is the governing Board, which appoints an Executive Director to manage the activities of the Centre. Below the Executive director, are the Deputy

Director and the Administrative Secretary, who oversee the activities of the research and non-research departments, respectively. Figure 4. 2 below shows the organisational structure of the Centre, depicting how it has evolved over the years.

**Figure 4.3: The Organisational Structure of the Centre**




***Source: The Centre, 2020***

The clinic started before all the other departments were established. It was primarily for research purposes. Herbs were prepared and given out to patients who brought feedback on their safety and efficacy. The clinic now operates a general outpatient department (OPD) and treating acute, chronic and infectious health conditions. It was indicated that the top ten reasons for the Clinic's OPD visits for the year 2019 included: hypertension, diabetes mellitus, urinary tract infection, gastritis, enteritis, hypertension with peripheral neuropathy, benign prostatic hyperplasia (BPH), anaemia, musculoskeletal pain, and arthritis.

Interestingly, malaria is often not among the top ten reasons for OPD visits at the Centre. A clinician at the Centre had this to say, "malaria does not top the list here, and I think it is because the Centre is yet to make use of the NHIS. We try to get the top ten diseases every quarter and hypertension tops mostly". It was explained that hypertension tops the list because the Centre's medication has proven efficacious for the condition over the years.

The clinic's consultation procedure is the same as the procedure one has to follow at a conventional health facility: taking of vital signs by nurses; consulting the medical herbalists; going for laboratory tests; and back to the consulting room for diagnosis and prescription. The only difference is the composition of the medication and the background of the medical consultant - medical herbalist as opposed to an orthodox doctor and herbal drugs as opposed to conventional drugs. Approximately the clinic attends close to a hundred clients in a day. It is named after Dr Ampofo, as shown below.

**Figure 4.4: The Centre's Clinic**


***Source: Author, 2019***

### *4.7.1. "Tradition on Sale."*

Even though patenting and commercialisation have been recognized as tools to develop and preserve indigenous knowledge (Craig, 2011; Gibson, 2011; Harilal, 2009; Kloos, 2015; Langwick, 2015; Osseo-Asare, 2014), the Centre's practise of this routine has received mixed reactions from its stakeholders. The commercialisation of the Centre's activities, therefore, emerged strongly from data collected from participants. As one of them put it, "Tradition has been put on sale at the Centre". It was explained as a significant lead to the Detraditionalisation of traditional modes of medical practice at the Centre. The crux of the argument here is that the Centre's core mandate is to engage in research and knowledge production to encourage the utilization of traditional medicine. According to participants, engaging in commercial activities is a digression from its mandate. Sandoo explained:

> I think they have deviated slightly from their core mandate. They were not into medicine production but to gather information on medicinal plants and their uses. They are to

> develop products and look at how the products will be appropriately formulated. Now they have shifted from that mandate.

Participants at the Centre did confirm that commercial activities were not part of their mandate from the beginning but explained that dwindling government support was the primary factor that pushed the Centre into commercialisation. Zak elaborated:

> The Centre started boiling the herbs and giving them to patients. The full-scale production came in much later. Even though currently the revised Act indicates that the Centre can commercialize, this idea of commercialization came in when government support started dwindling. To keep its activities afloat, the Centre had to commercialize to generate funds. Thus, when the Act was revised, they decided to push it in to make it legal.

Corroborating the reason for the Centre's engagement in commercial activities, Sandoo, who was earlier of the view that the Centre had shifted from its mandate, stated: "Well, everyone needs revenue to manage their facility. Previously, the government was resourcing them, but now it's not like that. They had a small clinic for research purposes. But now they are into commercial production, and their clinic has been expanded." Once commercialisation became part of the Centre's activities, it had to be given legal backing to make it official, so the right to commercialise was featured in the revised Act in 2011 (ACT 833).

On the issue of funding for the Centre, which had become a problem, Evans-Anfom (1984) had to mention this in his J.B. Danquah Memorial Lecture:

> The work being done at Mampong Centre is so important to the future development of our local medicinal plants that I would like to stress that not only Government but all interested private organizations should give it maximum support. I am informed that the Centre will soon launch an official appeal for funds. When this is done, I hope that everybody will respond generously.

The above statement indicates that the Centre struggled with funding to fulfil its mandate for a very long time. In a related study, Osseo-Asare (2014, p.151) stated that the Centre "struggled to pay consultant herbalists and sought equipment and support from UNESCO and the World Health

Organization to pay salaries and maintain the arboretum". These revelations raise questions regarding the state's interest in developing traditional medicine through the Centre's activities. How is this interest sustained without financial commitment? However, Osseo-Asare contends that the Centre has not been alone in this struggle. Other research institutions in the country, through the 1970s and 1980s, equally struggled to maintain high-level scientific activity because of political and economic instability.

The instabilities continuously interfered with funding streams, making it difficult for the nation's research institutions, including the Centre, even to afford laboratory equipment. The paucity of funds severely hampered the activities of the Centre, to the extent that the few pieces of equipment bought by the state had to be used in common with all the institutions working on plant medicine research, irrespective of where they were located (Osseo-Asare, 2014). According to Osseo-Asare (2014, p. 152), the Centre, together with the Faculty of Pharmacy, KNUST, "requested 250,000 Cedis to purchase three primary pieces of equipment: a mass spectrometer, a physiograph, and an automatic polarimeter in May 1975". The intention was to make them available to all the institutions conducting research into plant medicine in the country.

Osseo-Asare's account further reveals that the Centre, right from the beginning, was a site of controversy as far as its mandate was concerned. Some stakeholders had expected it to emulate the steps taken by researchers in institutions of higher learning, especially the alkaloid group at UST, which was interested in isolating active compounds for drug discovery. Ampofo had been actively involved in their activities but ran the Centre differently. Concerning this, one chemist, an affiliate of the Centre, lamented thus:

> Mampong (CSRPM) went a different direction. It's now a Centre of Scientific Herbalism. Scientific Herbalism. You know, it's not particularly interested in determining active ingredients ……. Not so much as the preparation of herbal potions of known efficacy. Yes,

> this is what they're doing (which is in a sense) because they need money (Osseo-Asare, 2014, p.151)

It is important to note that the Decree that established the Centre did not mandate it to isolate primarily.

Commercialization involves product development, mass production, sales and distribution, and opening the clinic to the general public. The Centre now sells its drugs over the counter and also stocks products from other herbal producers. To this effect, the Centre, despite its well-resourced arboreta in four locations across the Eastern region, cannot produce all the plant parts needed to manufacture its medicines. The supply of the bulk of plant parts used at the Centre is outsourced to private suppliers because of scarcity and the large quantities needed for largescale production.

Officials at the Centre were, however, not so enthused about their commercial activities. According to them, the other side of the issue was that concentrating on generating funds had the potential of compromising research, which is the core mandate of the Centre. It has been a significant concern for some of the Centre's stakeholders too. Following this development, traditional practitioners now see the Centre as a competitor and not a collaborator, leading to mistrust between the two parties. They even suspect the Centre of pirating their knowledge. This suspicion sometimes makes some practitioners stop analyzing their products at the Centre.

Furthermore, regulators also have reservations about the Centre's activities. Participants contended that the Centre's commercial activities contradict its official mandate and source of conflict of interest. York explained this point thus: "Mampong has another conflict: where Mampong is manufacturing and also selling, it's a problem. And there are trust and confidentiality issues. When it comes to these practitioners sending their products there, it is another issue". Again, Sandoo explained: "Once you are producing and at the same time analyzing the manufacturers' product,

they feel there can be a conflict of interest. Because I am a producer, you are also a producer; how can you be analyzing my product."

The Centre maintains that it had to go into commercial activities due to dwindled government financial support in response to these concerns. In essence, it is supposed to be fully funded by the government, but this has not been the case, and they have to rely on internally generated funds (IGF) to execute projects. Besides, product development, standardization, preservation, and packaging involve costs that cannot be borne by the Centre alone as demand for the products shot up over time. Ali explained:

> The truth is that we don't need to generate funds for our activities as an institution. We are supposed to be fully funded by the government. Unfortunately, the government doesn't have enough resources, so we have to support ourselves. Otherwise, there is no need. So right now, the running of this organization comes from IGF, which is why we are commercialising.

Zak also explained that government funds, at the moment, do not go beyond paying employee salaries: "Yes, it's just the salary. So that is the reason why we are commercializing; otherwise, there's no need. Fundamentally we are not supposed to. We are to support practitioners, but we are now forced to commercialize."

Funding undoubtedly has been very fundamental in the Centre's evolution. Thus, it would have been ideal for the claim of dwindling government financial commitment to be supported with hard budgetary facts and figures, but unfortunately, these were not available.

Another problem that participants believe accompanies the commercialization of activities at the the Centre is poor practices and a lack of expertise in task execution of some departments in the Centre. For example, in March 2019, the Centre experienced a downward trend in the sale of its products. Unfortunately, this went unnoticed by management because the Centre's income had shot up at that time due to an upward review of the prices of products. Therefore, the backlog of

products was wrongly attributed to overproduction, and production was suspended. Poor marketing strategies resulted in limited sale outlets and a reduced customer base. Customer service was next to nothing as phone lines provided on flyers were not official but personal. More critically, employees sold out trade secrets and used unapproved means to stock the dispensary with products other than the Centre's own for personal gains. These issues indicated that the legalisation of commercial activities provided for in Act 833 was not being handled efficiently due to inherent structural problems. This position was confirmed in the following statement by Sally:

> If we had enough funding, we wouldn't even bother ourselves producing. We will just focus on our research, and as trained research scientists, you can see how we are even struggling with production and marketing. It is not our field; it is a real bother, and we are struggling with it. We wish to concentrate on doing the research, and the limited staff that we have will support us in this service, not freeing them to go and market products and all that.

The concerns raised by participants about dwindling standards and expertise, competition and mistrust between practitioners and the Centre, and problems with regulators lend credence to the perception that 'putting tradition on sale' at the Centre had led to a transformation in traditional modes of medical practice across the country. The Centre, indeed, has had a strong influence on the development and production of traditional medicine, and through the commercialization of products, transformed the medical practice of traditional practitioners, scientific researchers, and marketers of pharmaceutical products at large. This finding is corroborated by Harilal (2009) where he indicates that through the commercialization of Ayurveda, the production of Ayurveda products moved through different phases of transformation. In the first phase, production was at a household level in the hands of traditionalists. Production moved beyond traditional providers to a phase of bulk production through mechanized and centralized production systems with manufacturing companies in control. The author explains further that market dynamics and

government regulations play a role in developing traditional products at this level, leading to scientific methods. A detailed discussion of these phases of transformation in the development and practice of traditional medicine in Ghana is the focus of subsequent chapters of this thesis.

## 4.8 Conclusion

This chapter provided insight into the establishment of the Centre. The chapter argues that certain unique factors contributed to the establishment of the Centre. Critical among these factors were the frustrations and interests of Ampofo and the lack of adequate medical supplies at the time of the establishment of the Tetteh Quashie Memorial Hospital, which was sited in Mampong. Of interest was how infrastructural facilities such as roads, water supply, and the state's interest became essential in establishing the Centre at Mampong.

The evolution of the Centre indicated the transformations that have taken place at the institution through time. The challenges in commercialising and their adverse effects on the Centre have also been highlighted.

In summary, the establishment and evolution of the Centre have led to significant transformations in providing traditional medicine in Ghana. Archival sources provided unique insights regarding the system of healing with herbs provided by healers and shrines before the Centre was established. The archival material and information obtained from interviews enabled a contextual elaboration of the evolution of traditional medicine, especially the rationale or basis for the support given to practitioners by post-colonial governments. The next chapter discusses the infusion of modern scientific methods and state policy as primary drivers of the transformations in traditional medicine practice.

# CHAPTER FIVE

# TRANSFORMATION OF TRADITIONAL MEDICINE IN GHANA

## 5.1 Introduction

State policies are intrinsically rooted in various ideologies. Thus, policymakers in various contexts have always influenced regulatory frameworks for developing traditional medical remedies to suit the modern agenda of the post-colonial state (Abraham, 2009). In this regard, scientists in Ghana have worked assiduously to transform various aspects of traditional remedies to suit modern practices. The result has been the efforts by many countries across the globe, including Ghana, to recognize, formalise, and institutionalise traditional medical practices for the effective delivery of health care. As a result, the landscape of traditional medicine in Ghana has gone through different phases, retaining some old modes of practice. This chapter builds on the previous chapters to discuss the changing state policies on traditional medicine, their effects on the activities of the Centre, and other stakeholders in Ghana.

## 5.2 Policy as a Tool for Transformation

From a sociological point of view, social institutions are created to meet some set objectives. In this regard, Twumasi (2005) points out that three elements characterise institutions: first of all, there must be a purpose to be achieved; second, a group of like-minded people who cooperate for the achievement of the purpose; and third, a set of complex cultural expectations representing the institution in question. In this context, traditional medicine practice may be seen as constituting an institution in its own right. As Twumasi has observed, medical practice takes place within institutions. However, like all social institutions, traditional medicine practice must change. Thus,

state policies on traditional medicine are meant to infuse changes in the practice to address the needs of the emerging society.

Since independence, successive governments have made frantic efforts to satisfy the societal need for safe, efficient, and quality health care delivery in Ghana. These efforts have mainly taken the form of formulating policies to support and regulate the practice. Historically, attempts at regulating traditional medicine were initiated by Colonial authorities under the guise of ridding the practice of quacks, superstition, and witchcraft activities. Thus, as biomedicine gradually gained roots in society and dominance over traditional medicine, the Gold Coast became medically pluralistic by the close of the 19th century (Addae, 1996; Adu-Gyamfi, 2010; Osseo-Asare, 2016). The power, prestige, and comprehensive utilization enjoyed by biomedicine gave it structural superiority over traditional medicine over the years (Boateng et al., 2016).

As noted by Adu-Gyamfi (2015, p.59), for the Colonial authorities, traditional medicine was the "ignorance of the indigenous people couched in a belief in magic and witchcraft that cannot be explained by reason which resulted in a state of fear." Thus, traditional healers were denied official recognition by the colonialists. The struggle that ensued resulted in the healers getting together to form associations. The Society of African Herbalists was formed at Sekondi in 1931 with its president as Kwesi Aaba (Adu-Gyamfi, 2010; Osseo-Asare, 2016). Members, among other things, sought to raise the standard of the local practice of medicine and gain official recognition and freedom to practice.

Consequently, the first president of Ghana, Dr Kwame Nkrumah, as noted in Chapter four, was resolute in his decision to redeem traditional medicine's image and develop it to an appreciable level to support health delivery. This decision manifested in the formulation of several policies,

such as the establishment of GPTHA in 1962. According to Adu-Gyamfi (2015), an association with the same name sprung up in the 1950s to uphold, protect, and promote the best in traditional healing practices, which the colonial authorities sought to vilify. This earlier association metamorphosed into the GPTHA that Dr Nkrumah inaugurated in 1962. This group was different from the Society of African Herbalists in that it had presidential support. Archival records reveal that there were attempts already in the 1960s to ensure that traditional medicine was made available throughout the country. In his address at Nsawam on the 16th of October, 1963, Mr E.H. T. Korboe, Regional Commissioner for Eastern Region, had to state as follows:

> As we are all aware, it is the ardent wish of Osagyefo the President that all avenues to protect and promote the health of the citizens of Ghana should be explored in order to build up a healthy, strong, and able-bodied citizen both in mind and body and well fitted to play their part in the great special and economic reconstruction of the country. It is in keeping with this wish that this Association has been formed in order to tap and make available all the accredited talents and services in the age of traditional and cultural methods of healing of diseases to the greater benefit of Ghana. Indeed, we are all aware that the system of healing of diseases using herbs has been the practice of our forefathers since time immemorial.[15]

Dr Nkrumah had planned that the Association would collaborate with the Centre in the execution of its mandate. However, after the overthrow of Kwame Nkrumah, subsequent governments did not follow through with the blueprint established for the Association. [16] In Ampofo's own words:

> The Centre was given a specific mandate. The first mandate was to conduct and promote scientific research relating to the improvement of plant medicine. Actually, for the real method of the research process, Dr Nkrumah formed the National Psychic and Traditional Healing Association which is all over the country. This association was meant to feed doctors of the Centre with information on traditional medicine.

Even though Dr Nkrumah left the scene, some association members eventually became an integral part of the Centre's activities in promoting and utilising traditional medicine in Ghana when the

[15] PRAAD, Koforidua, ADM/KD/31/6/684, Ghana Psychic and Traditional Healing Association, 1963- 1964

[16] Dr Ampofo's memoirs, Undated

Centre was finally established. It is essential to point out that the association's name changed after Dr Nkrumah was overthrown, from Ghana Psychic and Traditional Healing Association to Ghana Psychic and Traditional Healers' Association.

Thus, to gain official recognition, some healers, through the associations, sought to distance themselves from the cultural and traditional values attached to traditional healing and classified themselves simply as herbalists, as shown in the case of the Society of African Herbalists. It had severe implications for the development trajectory of traditional medicine in Ghana because practitioners, through their segmented associations, continued to struggle over whose practice was authentic and traditional.

GPTHA became relevant when the PHC programme was adopted and implemented in 1978 to provide health for all by the year 2000 (Anyinam, 1989). The MOH recommended that traditional healers, especially traditional birth attendants (TBAs), be involved in the development of health planning. These traditional health care practitioners were trained together with the mainstream practitioners to work as a team in response to the health needs of their respective communities using local resources (Anyinam, 1989; Isola, 2013; Le Grand & Wondergem, 1990). Thus, through the activities of GPTHA, traditional medical knowledge was harnessed for an improved PHC programme in the country.

Interviews with some practitioners and employees of the Centre confirmed the views of Anyinam (1989) by pointing out that several projects were also instituted in 1979 in connection with the training of traditional healers to make them a part of mainstream health care provision. Danfa Comprehensive Rural Health and Family Planning Project, for the training of TBAs; a community-based research project at Kintampo to assess the social processes that could lead to the

institutionalisation of traditional healers in health care; and a hospital-based training scheme for traditional healers at Techiman. Nonetheless, all these were experimental as they were not organized within mainstream national health care delivery (Anyinam, 1989). To ensure better coordination of activities in the traditional medicine landscape, a Traditional and Alternative Medicine Unit was established under the MOH in 1991. It became a directorate in 2003 – Traditional and Alternative Medicine Directorate (TAM-D).

In 1994, the FDA was established. Initially, it was called the Food and Drugs Board (FDB) based on the 1992 Food and Drugs Law (PNDCL 305B), whose mandate was to regulate all food and drugs production and sale, including herbal medicine in Ghana. Section 4 of the Law required that all medicines, including herbal medicines, were registered. Section 24 of the law ensured that the premises where these manufactured products are kept met the minimum hygiene requirements or good manufacturing practices (GMP). This law was later amended into the Food and Drugs Act in 1996 and was revised and integrated into the Public Health Act 2012 (ACT 851). Ankrah, a member of the regulatory team of the FDA's Traditional Medicine Unit, explained their mandate as follows:

> There is a section of the law that deals with herbal medicine regulation. Herbal medicines are also drugs, so a significant part of the preamble to the Act still holds. Nobody can manufacture, sell, prepare, store, and transport herbal medicine unless the Food and Drugs Authority registers it. And then, the Authority is mandated to examine the manufacturing facility to ensure good manufacturing practices.

In the meantime, new groups and associations of traditional health practitioners continued to emerge. Interestingly, traditional healers have continued to struggle for equal status as their biomedical counterparts, even though the state had shown interest in developing traditional medicine as indicated by independence. This struggle was attributed to the Colonial legacy of the

superiority enjoyed by biomedicine over traditional medicine. Therefore, to bring traditional practitioners together to understand better and support their activities, the government facilitated the formation of a federation of the significant traditional health practitioner associations in 1999– Ghana Federation of Traditional Medicine Practitioners (GHAFTRAM).

In the year 2000, the Traditional Medicine Practice (TMP) Act (Act 575) was enacted to see to the establishment of the Traditional Medicine Practice Council (TMPC). TMPC is the regulator of the practice of traditional medicine and is mandated to register all practitioners of traditional and alternative medicine in Ghana. Individual practitioners are supposed to demonstrate membership in an association of practitioners for easy identification, registration, and licensing.

To enhance the image of the practice of traditional medicine, the government established the Department of Herbal Medicine at the Faculty of Pharmacy, Kwame Nkrumah University of Science and Technology (KNUST) in the year 2000, for the award of a Bachelor of Science Degree in Herbal Medicine. The course is based on clinical and pharmaceutical aspects of herbal medicine, where one qualifies as a Medical Herbalist at the end of a four-year training programme. A recent one is the establishment of an Institute of Traditional and Alternative Medicine (ITAM) in September 2019 at the University of Health and Allied Sciences (UHAS), Ho.

The Centre plays an active role in the training of the medical herbalists from KNUST. Interns from the Department spend the first six months of a year-long internship programme at the Centre to familiarise themselves with the clinical practice of herbal medicine, production of drugs, and research. In sharing their experiences, some of the interns emphasised that the Centre played a vital role in training them. George, one of the interns, explained:

> Coming for an internship at the Centre helps you better picture what the whole industry does. We are made to go through all the processes: the clinical aspect, pharmacology and

> toxicology, pharmaceutics, production, microbiology, etc. We have research, production, and the clinic. So, what a person wants to specialize in depends on his interest at the end of the day. After you have written your licentiate exam, you can go ahead and choose whatever you want to practice.

It was also mentioned that the interns do not end it all at the Centre. They are sent to the Tetteh Quarshie Memorial Hospital to do the remaining six months of the internship. An allopathic medical facility is to get interns acquainted with allopathy in health care delivery to help them make informed decisions when faced with difficult situations in their practice. For example, a thorough knowledge of drug-herbal medicine interactions is very crucial for a medical herbalist. Given the pluralistic landscape of Ghana's health care delivery system, some patients would have visited allopathic medical facilities or been on their medications before deciding to turn to herbal medicine. George elaborated further that it was not advisable to immediately take a patient suffering from a chronic medical condition off allopathic medications. In that case, the medical herbalist should know the condition, the drugs being taken, their pharmacodynamics, side effects, and how they interact with certain herbs to advise the patient accordingly.

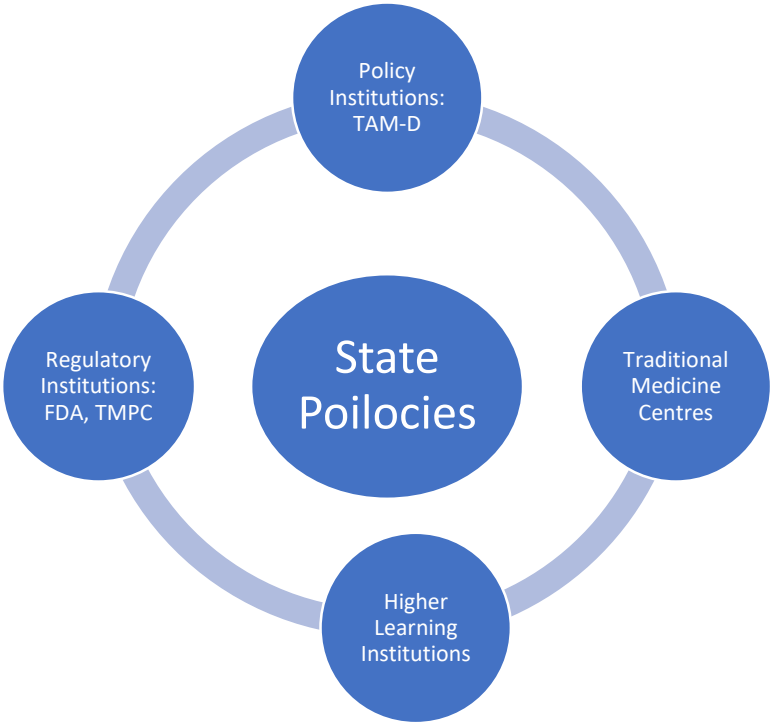
Meanwhile, the six months at the Centre and another six months at an allopathic facility did not seem long enough to make the required impact, but the interns admitted that it was enough. They took internships during vacations at various herbal facilities to consolidate the theoretical knowledge acquired in school. Also, the third and final years of their training were intensive because the interns were made to go on clinical observations twice every week in public hospitals with herbal medicine units.

From 2005, graduates from the Department of Herbal Medicine took over the professional and institutional practice of herbal medicine in Ghana. Since 2012, the integration of traditional herbal medicine into mainstream health care has been implemented on a pilot basis in 17 selected

hospitals across the country. However, it is reported that no policy document outlines the goals and scope of the integration process, leading to a varied understanding and level of acceptance by stakeholders involved (Boateng et al., 2016).

Finally, in 2005, the government developed the Policy Guidelines on Traditional Medicine Development to provide a general policy direction or framework within which the government's short to long-term plans on traditional medicine would be based. Scholars have argued that the emergence of a wide range of health care needs has made it imperative for most post-colonial states to explore all forms of healing methods to maintain a healthy population (Harilal, 2009; Sujatha & Abraham, 2009). To be centralized and recognized, these forms of healing methods, including traditional medicine, must be regulated by the state. For this reason, state policies target traditional medicine through regulation to give it the necessary recognition and bring it up to the required standard, making state policy a significant driver of social change in the industry. The figure below summarises the discussion on the state's use of policy to transform the phase of traditional medicine practice in Ghana.

**Figure 5.1: State Policies on Traditional Medicine**




***Source: Author, 2020***

**Regulatory Frameworks**

Even though the post-colonial state appears to be concerned about the development of traditional medicine, this concern has been limited to regulatory frameworks without definite directions or financial support to ensure practically positive outcomes. As noted by Banerjee (2002), post-colonial state policies on traditional medicine have been a "formulation of the consensus about science and technology" (Banerjee, 2002, p. 1136) to ensure standardisation.

In Ghana, the state institution mandated to set standards for all forms of manufacturing activities is the Ghana Standards Authority (GSA). The FDA is the regulatory body that ensures that all the standards regarding food and drugs are followed. Participants lamented the difficulty in

developing standards for traditional medicine practice because the industry is not well developed. It was, however, explained that this situation was not peculiar to Ghana. Here is what Ankrah said:

> There's a problem. There are no standards for the regulation of herbal medicines. There are no reference books for the formulations. The plants used in the Northern region to treat malaria may differ from those from the Volta Region. So, the same medicine is prepared with different plants. And so, the regulator should be convinced that the medicine does what the manufacturer is saying it does before it can be approved. And this is not an issue only in Ghana; it's a global problem.

Going beyond the issue of standardisation is characterisation which the regulators also identified as a challenge. It is said to be a key component in developing herbal medicine, yet it is challenging. Participants further explained that the ideal situation is to find out whether every herbal product contains the right plants and the right quantities of the plants. The lack of capacity for the characterisation of products poses a significant challenge in the industry. The lamentations of Ankrah in the course of the interview is worth repeating here:

> If someone comes and says, my product contains Cryptolepis, what amount of Cryptolepis can be found in it? Is it true that it contains Cryptolepis? We can't tell because we can't characterise it. These are all challenges. You only base your views on what the person is saying or go to the lab. The analysis will show that it contains a lot of alkaloids. And there are millions of alkaloids so, which one of them?

Undertaking stability studies to ascertain the shelf lives of herbal products before certification is also problematic for the regulatory body. It was expressed by York (also a regulator) thus:

> The stability issue is also a problem. Now we are not doing stability studies, and so the clients come and say 'My products can last two years.' How? Are you sure? How are we going to ascertain that it can last two years without expiring? So, what we usually do is that we put some risk approach system. If you are preparing a liquid, we put some precautions. Since you can't justify that it can last more than one year, you limit the shelf life to one year. If it's a capsule, we know capsulated powder can last two years. Ointments can go for two years and soap as well. Apart from that, if you want more shelf life, you have to justify it, and nobody can do that so far. So that's a challenge.

Although regulators admitted that these difficulties were not peculiar to Ghana, they indicated that it was more severe in Ghana since not much progress has been made compared to countries in Asia. Despite the existence of the FDA, there were no regulations in Ghana on traditional medicine until the year 2002, when the Traditional Medicine Unit was created under the FDA for the regulation of herbal medicines. The guidelines for regulation were developed and became operational in the same year. Before that, traditional medicine practitioners only regulated themselves through their associations.

Evidence from the field indicated an overlap in the activities of TMPC and FDA regarding practitioners, which is a source of tension between the two regulatory bodies. TMPC 's mandate includes registration of practitioners and the practice while FDA is interested in herbal drugs and the premises where drugs are produced and stored. FDA also has the mandate to ensure adherence to good manufacturing practices and the proper storage conditions for local and foreign manufactured herbal products. The activities of these two regulatory agencies overlap to the extent that in regulating the practice, TMPC registers and licences the premises where practitioners practice. To clarify this point, Sheini explained:

> Our activities sometimes overlap with TMPC. It's because we do licence of the storage facilities. Your room must conform to storage conditions. If not, it will affect the stability of the product and the efficacy as well. TMPC also licences storage facilities. But if you look at TMPC's Act, it is to register the practitioners just like the Pharmacy Council does. So, I think it's a bit worrying for the clients. Some of the clients will say TMPC has licensed my warehouse, FDA you're also licensing my warehouse. What are you licencing? Why are the two doing the same work"?

Asked whether a license from one of the regulatory agencies will not suffice, Sheini reiterated:

> Our primary concern is the safety of the product: Public health and safety! Apart from that, we don't have any interest. If I license a product, I must also ensure that the product is stored in a critical condition. I can't give you the license, and you'll go and put the product

> in the sun. Once FDA registers the product, it becomes FDA's product because we have to monitor it. If somebody finds a problem with the product, the person will come to the FDA. And now TMPC is talking about licenses manufacturing facilities. You can't manufacture the product without FDA. It's like Pharmaceuticals, so how can TMPC, which is supposed to license practitioners, license the manufacturing facility. TMPC is to license the practitioners and the practice.

A critical analysis of the gaps in implementing these regulatory policies revealed a lack of effective communication between the two implementing agencies. They fall under MOH, which has oversight responsibilities for both. While the two agencies have not dealt with these challenges to ease the pressure on practitioners, they argued that the practitioners are part of the problem. York elaborated: "The issue is that somebody is a manufacturer and a herbal doctor simultaneously; has his clinic and the manufacturing facility together. So, TMPC also says that since the herbal doctor is manufacturing within the premises of the clinic, they have to license everything."

Besides complaints on duplication of activities, practitioners lamented the lack of approved standards for practice. Most state officials, biomedically trained, saw traditional medicine as a threat to biomedicine. Therefore, the problems persist because of the conflicted interests of state officials to establish and enforce standards. So, practitioners are left to do things independently only to get into trouble with regulatory institutions in the end. Sibdoo, a practitioner of traditional medicine, lamented:

> People are only seeking their interests. When they go abroad, they are not taught traditional medicine; they are taught allopathic practice. And when they bring those drugs to Ghana, they take their commission. When you go to the ministries, the technocrats are there taking their 'cuts'. So, if they are asked to support herbal medicine, they will never do it. The way forward is to have courageous people.

Another practitioner, Judas, expressed his views on the lack of local standards thus:

> Even WHO tells us to use our standards. What standards does the Standard Authority have that make them decide (all herbal preparations go through scientific trials)? The last document they were preparing for herbal medicine didn't work. They didn't finish it. They

> sent letters inviting us for a meeting with the Standards Authority. On the day this meeting was supposed to take place, we received calls to stop. It was cancelled, and this has happened many times in different situations.

Judas' misgivings suggest that the state-led effort to develop traditional medicine in Ghana has mainly concentrated on giving credit to the latter through laboratory tests based on biomedical standards. This point also brought to the fore how terminologies and categories in health were wrongly translated directly from biomedical science into indigenous medical systems and practices (Droney, 2017). Indigenous knowledge systems are inappropriately subjected to Western scientific standards, a point well corroborated by Droney (2017). For him, scientific capacity building in herbal medicine, based on Western standards in effect, reinforces "research practices oriented toward drug discovery rather than the rationalization of crude drug preparations" (p. 437). At this juncture, a discussion on the infusion of Western scientific methods into traditional herbal medical practice in Ghana is in order.

### 5.3 "Forget the Science, Uphold Our Knowledge."

Evidence suggests that the adoption of modern scientific methods has led to a revolution in traditional medicine across the globe (Kloos, 2008). In many contexts, modern scientific knowledge has been described as the essential tool for preserving traditional forms of knowledge, including traditional medicine (Kim, 2007). Therefore, it is argued that a combination of the two systems of knowledge helps broaden the scope of traditional medical practice in contemporary times (Busia, 2016; Craig, 2011; Gibson, 2011; Kim, 2007; Kloos, 2015; Shankar et al., 2007). This assertion, however, has been open to debates at various levels.

Crucial in this study were the nuances in constructing traditional medical knowledge forms within the context of interaction with modern science (Kim, 2007). Some traditional healers have contested this notion and questioned why they had to practice their 'own traditional knowledge' in the context of modern science. They believed that tradition had its own standards which could not be measured accurately, using the 'scales' of modern science. Wofa Yaw, a practitioner, expressed his opinion in the following manner:

> When scientific requirements come in, they do not allow our indigenous medicine to function well; not everything requires scientific explanations. There are principles in practice. We have a tradition, and once the word tradition is mentioned, we should know that there is another way of healing that has nothing to do with fetishism, the knowledge our forefathers left us. It is impossible to unpack some knowledge forms in scientific language, yet they are highly efficacious. God gave us two things – reason and wisdom. The two are not the same; they constitute knowledge when brought together. So, to say a person knows a particular subject means that the person is both wise and reasonable in that subject. Therefore, we need to forget the science and hold on to what we know can be done with our traditional knowledge.

Another practitioner explained that being forced to adopt modern scientific methods in their practice was like mimicking the 'Whiteman's way of life, and it does not help in making things any better. Several scholars have highlighted this opinion who believe that traditional medicine will be more effective when operating by its standards (Wane, 2011). From the perspective of several practitioners, a person who claims to be an indigenous healer should not be seen moving toward biomedicine through the adoption of modern scientific methods. Wofa Yaw again said:

> When you go to most herbal clinics, the temperature is taken, various lab tests are done before diagnosis. If you do these things and say you are a healer, I don't accept it. Orthodox doctors don't respect healers because they see us copying what they do. If we can practice ours without incorporating orthodox elements, they will salute us. What we are doing is mimicking. What would we do to survive if the white man never existed or had not come to Africa? With this kind of thought, we can put away Whiteman's methods and see if ours can do something. At my clinic, I don't use any method from the Whiteman; I don't use other people's products. If I get a thousand patients, I will have different remedies for each of their ailments.

As alluded to in the responses, a section of practitioners in Ghana are not so enthused about the regulations put in place to ensure that they adopt scientific methods in their practice in the name of enhancing the safety and efficacy of their medicines. As a result, they accused regulatory agencies and the Centre of playing a leading role in that respect. Some responses from the field interviews also indicated that traditional medicines have become modernized due to modern scientific methods being infused into the production processes. Critics have argued in line with the theory of social change that modernity is undoubtedly the final destination of traditional knowledge forms that engage in state and market negotiations for recognition (Abraham, 2009).

### *5.3.1 The Centre: Between Tradition and Modernity*

In the case of the Centre, its activities, in the beginning, were not as refined as they are now. There were no herbal drugs because Ampofo had no interest in production. He only used his medical knowledge to diagnose, and the traditional healers provided the herbs for treatment. They sat with him in the consulting room, making them relevant at clinical and ethnobotanical levels. Information obtained from the memoirs of the late Ampofo emphasized how the practice of traditional herbal medicine and bio-medicine co-existed at the Centre that he founded right from the onset. Corroborating this information, Ali explained: "At the infant stage of the Centre, we boiled herbs and poured into gallons for patients after diagnosing their conditions. That was the beginning of commercial herbal medicine."

In the early days of the clinic's operations at the Centre, the medications came in the form of decoctions which were only simply boiled, stored in plastic drums, and dispensed to patients in their galloons. Dispensing decoctions continued until the introduction of official standards to guide the preparation and packaging of medications. As a first step, standard formulae were developed

to prepare herbal drugs for particular diseases, and the steps for preparation were outlined to ensure standardisation. After that, the herbal products had to undergo laboratory analysis in three critical areas: microbiology, pharmacology, and phytochemistry.

Microbiological assay determined the efficacy and wholesomeness of the product. Pharmacological assay determined the margin of safety, and the wider the margin of safety, the safer the product. The phytochemical assay indicated whether the product was plant-based or not, as well as the pH level. All these were to fall within the acceptable limits provided by WHO.

Evidence from the field suggested that before the Centre's establishment, the current form of production and the preclinical safety and toxicity studies of products were not components of traditional medical practice. These practices became popular with the initial works of Ampofo. Before then, most traditional healers just gave out plant parts to their clients to go and boil and used cups or calabashes to measure the dosage. Accordingly, this had issues with standardization (Craig, 2011; Evans-Anfom, 1984). Elaborating this point, Yule, a research scientist at the Centre, opined:

> Using the modern trend has improved the quality of the herbal products we are using now. We know the exact dose the patient should take that won't have any toxicity or serious consequences. Before, practitioners would tell you to take one cup, but people have different sizes of cups. We train the herbalists to conform to the modern trends so that they don't lose out and don't harm people.

Corroborating this point, Gladys, a client of the clinic, stated:

> Now it has improved. Once upon a time, it's given to you and told you to take a spoon full. But the tablespoons we have in our homes are different. Some are big, some are dessert spoons, and some are small. But now some will say 5mls, some 20mls. So that was the problem with herbal medicine. It was not like orthodox medicine, which is measured.

Still, concerning the standardization of herbal drugs, the following was also expressed by Blay, a practitioner who was undergoing training at the Centre: “In the days of our grandparents, you were asked to take one cup or calabash of the decoction three times daily. It was an overdose. But now, there is in-depth knowledge through training, and we can tell the right dosage. We attend training with the FDA, the Centre, and others.” However, scholars (Craig, 2011; Harilal, 2009; Kloos, 2008) have argued that the effort to standardize has reduced traditional medicine to the status of pharmaceuticals, which is recognized as the defining feature of modernization of traditional medicine. In the case of the Centre, modernization is perceived as combining traditional medical knowledge with modern scientific knowledge in the production of traditional herbal medicine. In Ampofo's own words, “The old method translated into the modern method.” He did indicate that he started the process of standardisation by taking the plants to the Department of Botany at the University of Ghana for the correct botanic identification, potency, safety and efficacy.

Every bit of information provided by a healer on a particular plant was significant for the scientist who would analyse the plant and prepare it for use. He asked healers to indicate the weight of the plant part(s), the volume of water to boil the parts, the length of time for boiling it or for macerating and leaving it in the sun, and the quantity to be taken. With this information, Ampofo got the correct measurement of plant ingredients and water, which gave the index from which he worked out the dosage for the patient.

After the analysis, Ampofo and his team prepared each remedy directed by the healers and tried it on scientifically diagnosed cases. This was to ascertain whether the herbs were efficacious or not. All the above activities were done with the support of researchers from other institutions because the Centre at its embryonic stage had limited staff. In those times, the institutions that provided

support included the University of Science and Technology, University of Cape Coast, Noguchi Memorial Institute, University of Ghana Medical School, the Chemistry Department of the Atomic Research Centre. As indicated in Chapter four, some institutions engaged in plant medicine research before the Centre was established so they could provide support in equipment and human resource.

It is important to note that even currently, the Centre, in various ways, still has ongoing collaborations with these institutions. With time, the Centre has established well equipped modern laboratories and well-trained research scientists, so most tests are now conducted at the Centre, albeit collaborations with other institutions for further research.

It must be emphasized that Ampofo (in the 1960s and 70s) was not boiling the herbs at his clinic for patients. Plant parts were given to the patients to go and boil at home and use with specific instructions on preparation, dosage, and storage. Their conditions were monitored to prove the efficacy or otherwise of the herbs dispensed to them. Kojo, who worked with Ampofo, explained: "At Obi-Kyerɛ patients were given the herbs in the raw state, to boil at home in an earthenware pot."

Much later (the 1970s to 80s), according to participants, the Centre took it upon itself to start boiling the herbs because it found out that some of the patients did not handle the herbs well at home while others refused to use them all together. They expected, instead, prescriptions of allopathic medicine and not the herbs they were already using. This attitude did not come as a surprise because traditional medicine had lost its value among some indigenes due to Western hegemonic ideas at the time. However, it worked against the founder's vision, so they had to make herbs more practical and less cumbersome for patients. Again, Kojo elaborated:

> Workers of the Centre visited patients to see how they boiled and utilized the herbs and their efficacy; they also asked them if they had any complications after taking the herbs. Through those rounds, we got to know many of the people were not boiling the herbs. So, we started to boil it ourselves. All these were done in the mid to late 70s.

The information above presents a unique case for further developing traditional herbal medicine into pharmaceutical drugs in Ghana. It originally started at the Centre due to patients' reluctance to boil and use herbs prescribed and given out in their raw state. Once the herbs were being boiled, there arose the need to preserve and prolong their shelf life. Therefore, this study argues that the 'pharmaceuticalisation' of herbal medicine came about, in the case of the Centre, as a consequence of factors other than those discussed by other scholars. The Centre's quest to make herbal medicine more presentable to patients by gradually improving upon it led to its transformation into pharmaceutical drugs found in the industry.

Discussing the development of Tibetan medicine in exile, Kloss (2016) alluded to the fact that the practitioners incorporated scientific methods in its production as a means of gaining recognition. In this case, traditional medicine as a cultural heritage played a vital role in nationalism by pushing for legal recognition while in exile. Therefore, the desire to be recognised motivated practitioners to adopt modern scientific standards to prove safety, efficacy, and validity at all levels (Kloos, 2016). It is interesting to note how different dynamics play out in transforming traditional medicine in various contexts.

Marsland (2007) also brings another dimension to the discussion on the recognition of traditional healers in southern Tanzania, where healers are ready to adopt scientific methods to gain state recognition in their practice. The basis for the desire to be recognised differs significantly from what pertains to the case of Tibetan practitioners. Even though traditional healers in Tanzania, just like Ghana, serve as the backbone of the health delivery system by providing health care for about

70% of the total population, they are yet to be given due recognition by the state. They see themselves as socially and politically excluded since they are not consulted on health issues, including discussions on HIV\ AIDS and malaria, which are critical in their context. As a result, they are willing to "learn from biomedical technology on their own terms" (Marsland, 2007, p. 763) to improve their practice and enhance their status. They did not care much about losing the "cultural purity" (Marsland, 2007, p. 764) of their tradition once the adoption of scientific methods would put them at par with their biomedical counterparts and gain them due recognition and respect in society.

While some traditional practitioners in Ghana saw the assimilation of modern scientific methods as a threat to the survival of traditional medicine and desired to limit its influence, Tibetan practitioners adopted scientific standards to preserve and gain recognition for their cultural heritage. However, as desired by southern Tanzanian practitioners, recognition was to use science to do away with aspects of their culture and practices, which kept them backwards and earned them a bad reputation.

As already noted, the Centre began establishing scientific laboratories from the early 1980s, leading to a sharper focus on science. The Western idea of what science ought to be led the Centre to shift its focus from the traditional mode of practice leading to what some scholars referred to as Detraditionalisation (Kloos, 2015). As the Centre became more and more 'scientific', the traditional healers, who were the focal point at the Centre, went into relegation. This situation was described as unfortunate by some participants who thought that the scope of science had been narrowed by limiting it to the physical sciences with the philosophy of logical positivism, where produced knowledge must be amenable to verification and replication (O'Reilly & Kiyimba, 2015; Shankar et al., 2007). They explained that science should instead be looked at in a broader sense as a method

of acquiring knowledge. This way, all knowledge systems could be embraced as new ways of knowing, as they may be valid in their own right and should not be unfairly judged by completely alien standards. Such cogitations were emphasised by Jones, an official of the Centre:

> Things have changed! I don't know what happened along the line. They (traditional healers) were part of the Centre, right from the beginning. I guess it is all because of the idea of what science is; it is in the lab. But if we see science as the acquisition of knowledge, then they should be on board. That is how far we have shifted.

Meanwhile, participants believed that infusing scientific methods into herbal medicine production compromises its potency for the supposed quality, safety, and efficacy. Also, modern science detaches traditional herbal medicine from its cultural heritage, trading it for money. That is turning it into a commodity (Anyinam, 1987; Banerjee, 2002; Danso, 2005; Harilal, 2009; Kloos, 2015). This kind of transformation of traditional medicine into a modern industry has been lamented by some traditional healers who confirmed the assertion that it has altogether been detached from its cultural values. Commoditisation of traditional medicine also separates the producer from the prescriber.

There is evidence in the case of the Centre where the Plant Development Department is responsible for gathering ethnobotanical information on medicinal plants from traditional healers; the Production Department produces the herbal drugs, which are prescribed for patients by medical herbalists. In this regard, this study takes the argument further by positing that the commoditization of traditional medicine also alienates the source of knowledge, which is the traditional healer, from processes of production and prescription. It alienates the traditional healers from their knowledge, strips them of power and control, and empowers the prescriber.

The discussion so far reveals that traditional healers see state regulation through modern scientific principles as a violation of their traditional rights, which unsettles them in many ways. As rightly

noted by Abraham (2009), modern institutions reduce the traditional authority of individual traditional healers by introducing universal norms through impersonal bureaucratic structures. In this regard, state and market forces are recognised as the most influential institutionalising and secularizing agencies. It is assumed, under this circumstance, that healers have no agency. These modern institutions further separate them from traditional social institutions of power, within which their authority and autonomy are asserted. In traditional practice, therapeutic power is perceived to be in the healer's hands and not sealed in the active ingredients of plants (Langwick, 2015). Therefore, it is not surprising that the modern traditional healer still holds on to these traditionally sanctioned values and finds it difficult to entrust aspects of their medical practice in other people's hands in the name of professionalism and modernization.

The above notwithstanding, advocates of modern science have also argued that tradition must not be perceived as a static entity. All forms of tradition, irrespective of time and space, must be dynamic to survive and maintain their relevance. The Centre, and some traditional medical practitioners, over time, has accepted the standards of modern science after having tested its effectiveness in practice. Some clients of traditional medicine also expressed the view that the world has become competitive. Traditional medicine will not appeal to the general public if not refined with modern scientific knowledge. They explained further that practitioners could not ignore quality, safety, and efficacy issues to impact this modern and globalized world. Kloos (2015) noted that traditional medicine must take on the cover of modern science to be internationally appealing.

Interesting to note, however, is that the category of practitioners who ascribe to the incorporation of modern science are those who acquired the knowledge through higher institutions of learning, as is the case of the medical herbalists trained at KNUST. Others also had the opportunity to study

herbal medicine from China and Japan, including other CAM practices, and have set up extensive and well-equipped herbal clinics. Another group of practitioners in this category is those who set up purposely to manufacture because they have the means of production but rely on the knowledge of others for production.

All the practitioners in the category of traditional healers continue to lament that they are being compelled through state regulations to turn their medicines into modern drugs, which reduces the scope of their practice. Wofa Yaw explained this point thus: "It is not only plant parts that are used for herbal medicine. The name implies, but other things are added, such as animal parts and shells. Therefore, when we talk about herbal medicine, it consists of all the things human beings can add to herbs for healing purposes."

Yeboah, another healer, indicated:

> If we decide to play with traditional medicine, it won't work well. Let's do traditional medicine, purely traditional. If we focus on extractions from herbs, we leave our tradition behind and move towards orthodox medicine. If a pregnant woman needs medicine, our mothers use herbs to prepare soup for her. If you ask that something like this is made scientific, it won't be possible. You can't use a standardized formula for this.

Still, on the scope of traditional medical practice being reduced by state regulations, Kofi said:

> So, Akosua, the fact is that if you are learning something about African medicine, take your mind off the Whiteman's own. If you follow that one, you will get to know nothing. You will not get to know about the high-ranking ones. All you will know is malaria, malaria, malaria. Everyone's own is malaria. That one quickly falls within regulatory requirements. So, if you follow what the government says, you will only be writing on malaria.

Participants further explained how they have had to alter their medications and even drop some recipes to meet regulatory requirements, thereby reducing the scope of their practices. As the responses above indicate, herbal medicine in the traditional sense is not limited to plant-based

medications. It goes beyond that to include animal parts, shells, fungi, and minerals, among others. The study revealed that this limitation accounts for misrepresenting the terms traditional medicine and herbal medicine in many contexts. Herbal medicine refers to medications manufactured from plants or plant extracts and is often equated with herbalism, phytotherapy, herbology, and botanical medicine (Falodun, 2010).

In some contexts, manufactured herbal medicines are labelled as food or dietary supplements to avoid controversies in regulation. In contrast, others have focused on single-drug formulations, which are easier to test and validate, than formula drugs with multiple ingredients (Harilal, 2009). WHO alludes to the fact that the differences in the definition of herbal medicine make it difficult to find a unified definition of the concept for national drug regulation. At the same time, this becomes a basis for confusion for patients, consumers, and readers (WHO, 2005). This study, therefore, makes a distinction in the use of the term based on the explanations given by participants. The pharmaceuticalised herbal medicines are referred to as *herbal drugs. Traditional herbal medicine* refers to those whose mode of preparation and utilization has remained traditional and may include materials other than herbs. Traditional medicine remains as defined by WHO and encompasses a wide range of healing practices including the use of herbs and other materials for healing purposes.

Since the Centre was given the mandate to ensure the purity of drugs extracted from plants, the obvious way to fulfil this mandate, as some have argued, is to make use of modern scientific and technological methods as they remain significant agents of change. These participants maintained that it is the only way the Centre would be seen as having evolved and developed to meet global standards. Jones explained:

> The idea at the Centre has been to tap into the natural medicinal sources of the country. This is in recognition of the fact that plant medicine is also a store of heritage. It goes beyond health. We have the opportunity to explore and exploit the body of knowledge bequeathed to us. The Centre goes beyond folklore and oral tradition to subject these to strict scientific proof through scientific inquiry.

Participants in the Centre's herbal medicine practice and a section of traditional practitioners in Ghana, influenced by the Centre, have all observed that these changes are inevitable since science is a progressive enterprise. The modern era of rationalizing the social world is characterised by disenchantment due to improved science and technology – traditional beliefs and values no longer hold sway in explaining social phenomena (Jenkins, 2000; Kim, 2007; Kloos, 2015; Shankar et al., 2007). Therefore, the Centre's institutional transformation due to the adoption of modern scientific methods in its practices is not out of place. According to Kim (2007), as traditional healers "accommodate scientific standards," traditional institutions will inevitably evolve into "scientific institutions" (Kim, 2007, p. 857). This evolution gives the Centre a scientific outlook. Ali affirmed it in the following words:

> We have a clear mandate, and the mandate is to develop herbal medicine. But at the same time, we cannot wholly separate isolation and characterization from the development of herbal medicine. It is a crucial component. We patent the compounds and hope the pharmaceutical companies will buy them for us to get money.

The statement above seems to corroborate the assertion that the Centre has deviated from its core mandate and meddles in things that give it an outlook of a 'scientific institution' and not a 'traditional institution' as it was mandated to be. The following comments from Ayini on some of the Centre's activities revealed more:

> The plant medicine research here goes a little bit further than just limiting ourselves to traditional medicine. Phytochemistry also does what we call isolation. So, a joint project with JICA was just interested in pure compound isolates, and these isolates were obtained

> from the plants. The compound is tried against disease to see whether it can work against the disease.

Even though Jones is actively involved in the Centre's activities, he did express that he was not in support of the over-reliance on science and literature in product development. He believed that it would lead the Centre to easily dismiss claims of healing made by traditional healers instead of using them as a basis for further research. This kind of attitude stifled innovation and the development of crude herbal preparations. These were his words: "Frankly, I think they can do more. They resort too readily to books and scientific procedures."

The above has been a concern for several scholars in the field of traditional medicine. Indeed, Shanker et al. (2007) did explain that modern scientific medicine concentrates mainly on the active ingredients in plants and, therefore, must not be imposed holistically on traditional medicine. The Centre's collaboration with the Japanese International Cooperation Agency (JICA), which Ayini referred to between 2010 and 2015. According to Droney (2017), the Centre received sophisticated research equipment, including a rotary evaporator, freeze-dryer, a new storage freezer, a High-Performance Liquid Chromatography (HPLC) machine, and employee training through the transnational research collaborations with JICA.

The project's purpose was to screen Ghanaian medicinal plants for therapeutic effects against trypanosomiasis and HIV. The project was executed in collaboration with the Noguchi Memorial Institute for Medical Research located at the University of Ghana. After the first phase, more laboratory work on the isolates was done in Japan at Nagasaki University and Tokyo Medical and Dental University. For Droney (2017), the nature of collaborations oriented toward the isolation of molecules, imply a preference for drug discovery over the rationalization of traditional herbal

medicine, which should be the focus of the Centre. As many have argued, the Centre's scientific orientation is misguided: it has shifted from its original track.

### *5.3.2 Clinical Tests or Clinical Trials?*

The debate of clinical trials has become severe in the herbal medicine industry in Ghana. Some critics of the Centre believe that the Centre, with all its resources and advancement in science and technology, should not fall short when it comes to the demands of clinical trials for its products. Regulators have argued that as a pacesetter in innovation and product development, the Centre should meet the regulatory standards for clinical trials. It is the international standard every drug is supposed to meet. The Centre is not oblivious to the merits of this demand and public expectation. However, it was explained that given the current circumstances – resource constraints and the length of time required to go through the four phases of trials – and the level of development of herbal medicine in the country, it is not feasible to conduct clinical trials per the international standards. Sally, an official of the Centre, reiterated this in the following words:

> Those kinds of tests are legitimate. Once you register something like a drug, it needs to go through the proper drug development processes, so what they are asking is the right thing to ask. The only thing is we all know that it's challenging to have those things done in our circumstances. But I tell my management that let the Centre be the standard. Let that policy be there, and we try to implement it; if it doesn't work, we go back and tell FDA it's not working. So, even if the Centre cannot do it with all its resources, how much less other producers?

Indeed, these international standards in health care practices have continued to influence local policies on health, including the practice of traditional medicine, which is the focus of the section that follows.

## 5. 4 Global Impact on Local Conditions

Traditional medicine's transformations have been described as political and are attributed to international regulations linked to globalized capitalism: essential agents of social change (Kim, 2007; Kloos, 2019). With the emergence of the world as a global entity, issues on health and medicine have taken a much more global perspective (Kim, 2007; Kloos, 2019; Osseo-Asare, 2014; Shankar et al., 2007). State regulations targeted at traditional medicine, as discussed above, are mainly influenced by what goes on at the global front under the auspices of WHO and other equally influential international organizations like the United Nations Children's Fund (UNICEF) and West African Health Organization (WAHO), among others. These organizations play important roles in shaping global health policy.

For example, at the dawn of the Alma Ata Declaration in 1978, WHO called on all member states to make traditional medicine integral to their national health delivery systems (Busia, 2016). WHO recognised the Centre's promotion of herbal medicine as a precursor to implementing the above declaration in Ghana. Consequently, in 1980, the Centre was awarded the status of a WHO Collaborating Centre for traditional medicine. Ali, an official of the Centre, indicated: "From then into the early 80s, we began establishing scientific labs leading to a sharper focus on science. Along the way, the Centre was made the WHO collaborating centre for traditional medicine, the first in Africa." It meant that apart from being recognised, the Centre also merited the organization's support through funded activities and collaborations.

Most importantly, it made the Centre the reference point where institutions and experts could meet to share and acquire indigenous medical knowledge. To this effect, the Centre got involved in collaborations with its stakeholders at various levels. The support received by the Centre through

these collaborations contributed to the transformation process of traditional medicine in Ghana to a considerable extent.

However, it is worth noting that these collaborations sometimes become avenues through which beneficiary institutions are undermined and deprived of autonomy. The Centre lost its status, along the line, as a WHO Collaborating institution due to its involvement with Kasapreko, an alcohol distilling company in Accra – Ghana. The Centre, through research, developed a formula to produce a herbal concentrate for the company, which produced "Alomo Bitters" – a popular herbal alcoholic beverage in Ghana. WHO considered this a digression from the Centre's core mandate since the production of this concentrate did not have to do with medicine per se. As a punitive measure, the Organisation withdrew its support for the Centre.

Indications are that attempts have been made recently for the Centre to be re-designated as a WHO Collaborating Centre. According to informants and records from the Centre's website, in 2018, the WHO Regional Advisor for Traditional Medicine in Africa paid a visit to the Centre to discuss the possibility of the Centre's re-designation. Until the visit of the Regional advisor, the Centre had made several attempts to be re-designated without much results.

With these interventions, health care delivery, globally, has been reduced to pharmaceuticals with emphasis on availability, affordability, quality, and safety of drugs (Craig, 2011; Kloos, 2017, 2019). It has drawn herbal medicine production into the global capitalist health care market (Kloos, 2017), a phenomenon enabled by neoliberal state policies that became popular in the 1980s (O'Sullivan, 2018).

Information gathered from field interviews pointed out that the development of herbal medicine into a modern pharmaceutical industry in Ghana became significant from the 1980s. According to

Ali, “herbal medicine in Ghana developed significantly and became popular between the 1980s and 1990s”. As established already, the social and cultural changes that resulted from the contact with Europeans and the subsequent introduction of orthodox medicine, along with the power dynamics played out in the colonization process, had negatively affected the image of traditional medicine in Ghana (Adusei-Mensah & Inkum, 2015). It eventually led to a decline in the utilization of traditional modes of medical care and healing (Addae, 1996). With orthodox medicine as the official medical system, many African countries, therefore, began the post-colonial era with free or heavily subsidized health care for their citizens (Fusheini, Marnoch, & Gray, 2012). Unfortunately, difficult economic times in the 1970s and 80s resulted in the abandonment of this universal health goal by virtually all sub-Saharan African countries (Criel, 1998). The economic hardship of that period and its adverse effect on health in most African countries was due to integrating the African economy into the international capitalist system, which emphasised capital, free markets, and profit accumulation (Baylies, Cohen, & Williams, 1986).

Consequently, in the late 1980s, most African health ministries under the guidance of UNICEF, WHO, and the World Bank shifted their health care strategies to fee-for-service models (Paganini 2004; Keshavjee, 2014). In Ghana, this led to the implementation of Structural Adjustment Programmes (SAP) offered by the World Bank in conjunction with the International Monetary Fund (IMF). SAP demanded heavy cutbacks on social services like health and agriculture, as well as economic infrastructure. Therefore, there were shortages in medical supplies, with the situation getting compounded by the introduction of user fees in the provision of health care, which became popularly known as the Cash-and-Carry System.

This new development, as indicated above, resulted in a decline in the utilization of biomedical health care. Over time, the inability of the biomedical system to meet the health needs of the people

led to a resurgence in the patronage of traditional modes of health care provision at a time when the Centre had already laid the foundation for the production of traditional pharmaceutical medicines. This study's finding corroborates Harilal's (2009) study on the development of traditional medicine in India. He found out that traditional practitioners had to step in to augment medical supplies when the country was plagued with epidemics of cholera and smallpox in the mid-19$^{th}$ century. This intervention set the pace for Ayurveda to be developed into a modern medical system. It was, however, gradual and took over a century before traditional medicine in India gained state recognition. However, Ghana presents a different and unique case as the state, right from independence, envisioned a well-developed traditional medical system to promote the African heritage and supplement the inadequate health care delivery offered by the conventional system. It was done through several interventions, including the establishment of the Centre, as noted earlier.

Through the pioneering works of the Centre, the traditional pharmaceutical industry in Ghana has become a modernized system. It has allowed local producers to follow global trends and strive to maintain international standards. Private herbal medicine practitioners have established clinics and produce standardized herbal drugs through regulations instead of giving out plant parts to clients. They use modern scientific machines to avoid the wrong diagnosis that plagued the industry in Ghana.

Typical of a capitalist society, the production of herbal medicine in Ghana no longer depends on the expertise of traditional healers alone. Owners of means of production establish partnerships with healers in urban centres – the authentic sources of traditional medical knowledge. Dronov and Brunn (2018) described cities as the initiators of global change and, as such, the backbone of the global economy. This phenomenon reshapes cities, making them suitable to fulfil the demands

of capitalism. It comes up strongly when the development of herbal medicine is discussed in Ghana.

As this study found out, the phenomenon is experienced mainly in urban areas. At the same time, the industry remains less developed in the rural areas, where it is sometimes described as a dying practice (Anyinam, 1987). Some data were gathered in parts of the Upper West, Savannah, and Northern regions and around Mampong, where the Centre is located, to ascertain the validity of the above assertion. Apart from one practitioner, all the traditional healers contacted were oblivious of the activities of the Centre, as well as FDA regulations. In Mampong, even though all the five practitioners contacted were aware of the existence of the Centre, they had no relationship whatsoever with it. These two groups of practitioners in the northern and southern sectors were not processing and still consulted at their locations. They engage their clients in the traditional modes of practice, maintaining the cultural distinction in their respective traditions. For example, at Mampong, a client of Nana Susubribi walked in whilst I was interviewing him, and he took the opportunity to explain his practice:

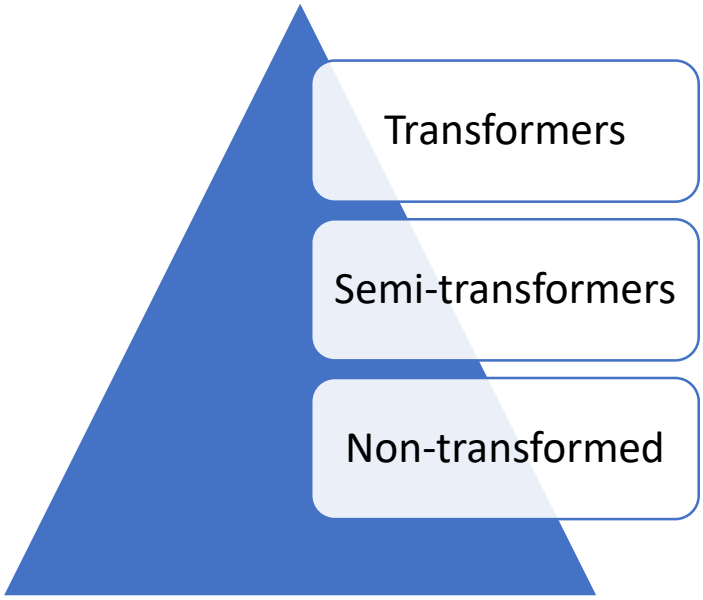
> You just saw that the lady poured some water on the ground before drinking. There are two explanations for that. It could be that she is giving it to the spirits that follow her everywhere she goes or that some spirits in the form of fire followed her in here. You need to quench the fire to talk to them, so the water poured on the ground serves that purpose. We do little, little things to keep us in the practice that people don't understand.

The magico-religious aspects of the practice of traditional medicine are still adhered to by the majority of healers in the country, especially in rural settings, even though such practices can be found in the urban centres. However, mainly in the urban context, market-driven development agendas promoted by neoliberal policies lead to a detachment of traditional systems from their historical, social and cultural values, and consequently, they are viewed as marketable commodities, a point earlier alluded to in this chapter (Dronova & Brunn, 2018; Gerring &

Thacker, 2005; Heilgendorff, 2018; Kloos, 2017; Lupton, 2003; Patterson, 1974; Quadagno, 2010; Shankar et al., 2007).

As a consequence of the preceding discussion, the phase of traditional medicine in Ghana has been transformed. As indicated above, the change is evident in the urban centres. However, embedded in the transformation are stable practice patterns that have not departed from elements of the distant past. The phenomenon is depicted in the figure shown below.

**Figure 5. 1: Categories of Traditional Medicine Practitioners in Ghana**




***Source: Author's construction from field data, 2020***

The pyramid shows the categories of practitioners, which indicates that the transformation has not occurred across-board. At the apex, consisting of the smallest number, are practitioners who have fully transformed in practice and concentrate only on the production of herbal drugs through the adoption of scientific processes and biomedical, clinical practices. This group is here

conceptualised as *transformers*. The use of the term *transformers* is an indication that the practitioners have not been passive receivers of these transformation processes but active agents in pursuing alternatives that continue to make them agents of transformation themselves in the industry. Practitioners trained in higher learning institutions in Ghana, China, and Japan, among others, form the core of this category. The Centre as an institution also falls under this category.

Midway in the pyramid is a relatively significant number of practitioners who adopt science in suitable ways but do not allow a complete change in their practices – conceptualised as *semi-transformers.* Once again, this category is labelled *semi-transformers* because they are active agents in the selective application of scientific processes in their operations and continue to influence other practitioners. They are trained in using hygienic methods to prepare the herbs for their clients without processing them into herbal drugs, although some venture into production without making it their core business. This way, they retain some power and control associated with the practice, particularly in the diagnoses and prescription of treatment for their patients, which may go beyond the use of herbs.

Finally, at the broad base of the pyramid is the most significant number of practitioners, the *non-transformed* whose practices have not in any way been influenced by science and technology, either because they resisted it or are still not well informed. Here, they are conceptualised as *non-transformed* but not *non- transformers* because they are not transformed and do not play any role in the ongoing transformation in the industry. Their means of diagnosis and prescription are still 'traditional', and they maintain all the magico-religious components of traditional medicine with power and control over what they do. The *semi-transformers* and the *non-transformed* continue to be the sources of the knowledge, in most cases, used by the *transformers*.

## 5.5 Conclusion

The chapter has thrown light on the role of the Ghanaian state in the development of traditional medicine from a policy perspective. At the same time, the argument was made that such processes were influenced by global needs for standardization championed by FDA. The Centre has been at the forefront of these innovations at a cost to indigenous modes of production. Traditional healers condemn the Centre for subjecting traditional practices to modern modes of scientific production: the Centre has shifted from its original aim.

The chapter drew in neoliberal economic policies and how these have impacted on activities of the Centre. Even though these policies provided the Centre and its stakeholders an opportunity to make a breakthrough in traditional medical practice, it was constrained by a lack of resources in later years. When the Centre was empowered to generate its income, several innovative steps were implemented, including producing or preparing concentrates that the liquor industries could use. The production of a formula for Alomo Bitters ended the collaboration between the Centre and WHO. Other institutions in Ghana, including KNUST and Noguchi, had all collaborated to expand the frontiers of traditional medicine in the country.

Governments of developing countries like Ghana have often confined the development of traditional medicine to regulatory frameworks without definite provisions made to get them adequately centralised for expected outcomes. The chapter also examined how modern scientific principles have been infused into traditional medicine practice and its implications. It has also been argued here that the state's transformation of traditional medicine is a function of global health policy and local economic conditions. Thus, the chapter concludes that state policies, modern scientific standards, globalization, and capitalism are significant drivers of transformation in Ghana's traditional health care practices.

# CHAPTER SIX

# THE INFLUENCE OF THE CENTRE

## 6.1 Introduction

The deliberations, so far, have shown that the Centre has influenced the practice of traditional medicine in several ways. This chapter, therefore, dwells on the Centre's influence in the development and practice of traditional medicine in Ghana. The Centre's influence demands an answer from four critical stakeholders: practitioners, clients, community members, and regulatory institutions. Therefore, critical issues to be discussed include the Centre's influence on traditional medicine in Ghana, the tensions, conflicts, and contradictions emanating from the activities Centre, and the scientific class. Further, informal avenues through which some actors in the industry benefit from the activities of the Centre will be highlighted. Finally, the views and perspectives of the people of Mampong on the Centre's influence will be evaluated.

## 6.2 Influence on Traditional Medicine in Ghana

The Plant Medicine Research Act, 2011 (Act 833 Section 2) states that "the object of the Centre is to research into plant medicine for the promotion, encouragement, extension, transfer, and application of scientific research knowledge and development in the field of plant medicine." Pursuing this object, the Centre is perceived to have influenced the phenomenon of traditional medicine practice in Ghana. As Sally, a top official and a key informant in this study, explained:

> I will say that the Centre is the root of the development of herbal medicine, both officially and unofficially. If we go back to the history of this place, when Ampofo started the Obi-Kyerɛ project, herbal medicine was practised in a very rudimentary way. Officially, we assist herbalists in processing their products because the Centre's mandate is to encourage herbal

> medicine. If we support herbalists and produce medications the right way, then people will use herbal medicine, and by extension, we are fulfilling our mandate.

As an agency of MOH, the Centre has contributed to the formulation of traditional medicine policies. Therefore, the changing state policies on traditional medicine have not adversely affected the activities of the Centre. It was indicated that all the policies on traditional medicine in the country find expression in the Centre's activities, making it the 'focal point' of traditional medicine in Ghana. Expressing this view, Sally again opined: "We drive the change. So, I won't say any of the changes have adversely affected us. We have been part of the change. Whatever policy has been put in place has been for the greater good as the focal point of herbal medicine." Affirming the view, Ali, another official of the Centre, stated:

> These changes did not significantly affect the performance of the Centre because we are an agency of MOH, so we are part of the formulation. We work closely with TAM-D. It is supposed to be our mouthpiece. The TMPC is the regulatory body. We are actively involved in training medical herbalists. So, the changes have enhanced the Centre's activities.

The expressions indicate that the policies altogether have enhanced the Centre's activities and functions. In performing its functions, the Centre is involved with several stakeholders who contribute in various capacities to help realise the former's mandate as stipulated by the Act mentioned above. Horizontally, the stakeholders are TAM-D, TMPC, FDA, the universities, and other research institutions, while MOH plays a supervisory role. Traditional medicine practitioners interact with the Centre through some traditional herbalists' associations such as the National Association of Traditional Healers, Ghana Association of Medical Herbalists, and Northern Sector Traditional Healers' Association, among others, as well as GHAFTRAM, which is the umbrella association of all practitioners in Ghana. Besides these formalised traditional medicine practitioners' associations, individual practitioners seek the Centre's services to analyse their

products. Clients of the Centre's clinic and the general public who patronize the Centre's products, distributors of the products, and plant parts suppliers are all significant stakeholders, as alluded to in the previous chapter. The following discussion highlights the Centre's academic influence.

### *6.2. 1 Academic Influence*

At the core of the Centre's activities are research and publications, which are also stipulated in Act 833. Subsection (a) of the third section of the Act mandates the Centre to disseminate research findings. In this direction, Ampofo, as far back as 1975, produced articles on the development of traditional medicine in Ghana. WHO recognized the quality of his research and its relationship with health. Subsequently, he was appointed an advisor on traditional medicine to the Organization until his demise in 1998. The Centre continues to publish findings by its research scientists. Such publications, mostly in peer-reviewed journals, are often uploaded on the Centre's website by the Scientific Information Department, responsible for sharing scientific findings and publications with the public.

The intent is to expand the frontiers of knowledge on medicinal plants and product development in Ghana and beyond. There is also a library resourced with books and other documents readily available to students and researchers. It also has an internet resource to which the library is linked and sites provided to search for herbal medicine and related issues. The Centre is open for internship and practical work on herbal medicine for both students and researchers from countries all over Africa where its activities have been felt.

The philosophy, *Obi-Kyerɛ*, guided the Centre's involvement in the training of medical herbalists from KNUST. Some employees of the Centre moved to the Department of Herbal Medicine as lecturers. Edward, an intern at the Centre from the KNUST Department of Herbal Medicine, expressed the following when the Centre's contribution to their training came up. He said:

> What we are doing here actually entails going through different laboratory sections. A medical herbalist has to know how to produce drugs without micro-organisms. So, we learn how the drugs are screened before they are produced. When you find yourself in any pharmaceutical industry, you'll know what to do. We also go through the clinical aspect to learn how to take care of patients.

It is evident from the above quotation that the Centre's contribution to the training of medical herbalists is key to the programme's success. Even though the students have various forms of internships at herbal clinics in the Kumasi Metropolis, none of them is considered vital as the Centre's training since the certificate to practice depends on successful completion of an internship at the Centre.

### *6.2.2 Influence on Practitioners*

The *Obi-Kyerɛ* philosophy again ensures that as the Centre takes knowledge from healers, it gives back to them in training regarding standardization and marketability of their products, even though not without fees in the current arrangement. The training courses are usually advertised on their website and also disseminated through practitioner associations. Interested practitioners apply to attend at a fee.

The Centre also offers consultancy services to individual practitioners and companies who lack the requisite knowledge to formulate and process herbal drugs. Some learn from the Centre to manufacture herbal products, while those who want to be in business ask the Centre to produce and bottle them with their labels. Class herbal products and Ahomka ginger toffee, among others, were mentioned as examples. The Centre also started the production of tinctures for Kasapreko to produce Alomo Bitters which led to the growth of the so-called bitters industry.

Some participants expressed the following views, explaining the official ways the Centre has impacted the traditional herbal medicine industry. Ali said: "But the Centre itself tries to train herbalists on how to improve upon their production, quality control and all that. So, that they will

produce good quality drugs for the public." Sally also expressed it in this manner: "So, in the drug industry, there are some companies who contact us for packaging. Some start with us; as their businesses grow, they leave. Presently we are doing packaging for two producers." Janel reiterated:

> Did you ever hear of a product called Class Malacure? We were producing that for them. The product is no longer on the market. There was a legal issue between the partners. I think the issue is still in court. So, as it stands now, the formula is still with us. We encourage other companies to come so that we develop a partnership that serves our mutual interest.

Jonah also had this to say:

> We are supposed to be helping with the manufacturing and development of a formula for industries. The intent is to continuously link with industries, even in the production of our own medicine. They can be a source by which we gauge the popularity or otherwise of our work. Some seek our assistance in the production and preservation of their products.

The views expressed were confirmed by a group of practitioners on a two-week training programme at the Centre. Joojo, a practitioner from Tarkwah, shared his thoughts in the following manner: "I have just started the manufacturing process. I was only using the raw herbs to treat patients because I didn't know much about preservation. So, I'm still undergoing training. I don't want to poison anybody."

After a first-time experience at the Centre, Kofi, a practitioner, said, "this is my first time. Previously we thought the Centre was a very complex place, but now I know it is not and exists for our good. They are ready to help us in so many ways and even encourage us."

Broader themes of the short courses organized for practitioners include good manufacturing processes for herbal medicine producers and techniques in herbal medical practice. Specific topics include an introduction to Ghanaian medicinal plants; bioactivity of selected medicinal plants; drug-herb interaction and adulteration; good production processes; branding of herbal medicine;

basic medical microbiology; introduction to the biochemical basis of diseases; herbal treatment option for selected diseases; and introductory herbal clinical practice.

The observation above resonates with indigenous knowledge scholars such as Kirsten (2002), and Kim (2007), who stated that traditional healers tend to be perceived with ambiguity in recent times. So, to align themselves with the current social, political, economic, and cultural transformation processes in modern society, some have been very enthusiastic about the efforts by the state to have them upgrade their practices. It is essential to point out that the inspiration offered by the Centre is appreciated by some practitioners, evident in the responses given above. As traditional medicine practitioners adopt scientific and modern practices, traditional institutions transform into scientific institutions, as seen in the case of the Centre and its 'disciples' in herbal medicine.

Ghana has similarities with other countries within the sub-region concerning cross-fertilization of ideas and training in herbal medicine. For example, as far back as 1998, Rasmussen identified two broad categories of traditional healers among the Tuareg in Niger, categorized as elite practitioners and indigenous practitioners. The elite practitioners were those who had acquired knowledge in modern scientific standards regardless of their social origins. In contrast, the indigenous practitioners did not compromise the cultural values of their healing practices.

Among the biomedical practices deployed at the Centre's clinic are taking temperature, blood pressure, request for diagnostic tests and scans to undertake correct diagnosis of patients before prescribing or administering the herbal drugs. It is this knowledge that the Centre also transferred to practitioners. As earlier pointed out, the practitioners interviewed during their training at the Centre confirmed that acquiring this knowledge had brought significant improvement in their practices.

Adzo, a practitioner, discoursed: “When you get a patient whose diagnosis becomes difficult, you can ask for a lab test. Once the disease is named, you can provide the herbs. This is the knowledge we have acquired now, which has been very helpful in our practice.”

Nonetheless, she went on to say, “me, I practice traditional medicine, but if someone is brought to me in critical condition, I sometimes administer orthodox drugs for immediate relief.” This response appears to contradict the claims of most practitioners who said they did not want to compromise the cultural purity of traditional medicine, hence their refusal to adopt biomedical standards in their practices. Nevertheless, it confirms what some participants at the Centre said about herbal medicine. They claimed herbal medicines did not produce quick results as did conventional drugs. Mansah, an employee of the Centre, explained: “when the malaria parasite is high, and the case is severe, we give the first dose of Artemether Lumefantrine and Diclofenac injections before we continue with the herbal medicine after eight hours.” Practitioners believed that this was a significant difference between herbal and orthodox medicine, making some believe that the latter was more potent than the former. For traditional healers, it was just the mechanism of the drugs that brought about the difference between the two medical systems and not the ‘false impression’ that orthodox medicine was more potent than herbal medicine. Therefore, one official at the Centre concluded that herbal medicine should be a natural choice of medication for all while conventional drugs are reserved for people under critical health conditions.

As pointed out by many participants, the Centre has drifted more and more from its original mandate of ensuring the safety and purity of traditional herbal products. It has kept moving closer to biomedical standards in its clinical practices: detraditionalising traditional practices. The question posed is, how ‘traditional’ are these practices engaged in by some practitioners, including the Centre, which is considered a pacesetter in the practice of herbal medicine in Ghana? Many

believe that the Centre is misleading practitioners in the industry who look up to it for best practices in traditional medicine.

The criticism from practitioners and the general public is informed by the problems associated with drug-herbal interactions and adulterations of herbal products. Already some producers try to outwit regulators and consumers by adding conventional drugs to their preparations to turn out supposedly very potent products. It has been detected mainly in the case of herbal drugs for erectile dysfunction (ED) and painkillers in the country. FDA's post-market surveillance activities – random sampling and testing of products on the market – discovered some herbal products for ED are adulterated with oral phosphodiesterase type 5 (PDE5) inhibitor class, the main orthodox drugs for treating ED. Regarding this practice of adulteration, Jane, a medical herbalist, shared her views as follows:

> It is alright to adopt western standards to improve upon what we have, but combining conventional drugs with herbal ones is dangerous for consumers. It tends to confirm that Ghanaians have less faith in whatever is labelled 'traditional' and instead repose faith in what is foreign or exotic. Traditional herbal drugs are potent when prepared correctly with the right ingredients.

It is worth noting that FDA has cancelled the licenses of such products over the years, and those found un-registered are banned from the market. This information is made public and published in newspapers to alert unsuspecting consumers of the dangers of consuming such adulterated herbal products. The public relations officer of FDA confirmed this when he granted an interview to an Accra-based radio station, Star FM, in 2018. In his words:

> Suppose someone brings a product to the FDA to register as herbal medicine but contains something else for the product to appear differently outside the purpose for which it was registered. In that case, it amounts to deception to the general public. So, such products have been banned. We have, and will continue to, cancel the market authorization we give these products.

The discussion turns to the Centre's influence on clients of traditional medicine, who have been the target beneficiaries of all the regulations in the industry.

### *6.2.3 Influence on Clients of Traditional Medicine*

Clients of traditional medicine expressed the view that the name of the Centre has given confidence to users of traditional herbal medicine despite the activities of fake practitioners in the industry. Consequently, the clients cut across all classes of society, and in particular, the Centre's clinic has clients coming from different regions of the country. For example, clients come from different parts of Accra, while others come from Kumasi, Bekwai, Takoradi, and Ho. Most of these participants are in gainful employment with high educational backgrounds. This observation is in sharp contrast with the assertion made by Tabi et al. (2006) that it is the less endowed and less educated in society who utilize traditional medicine. Among several clients, the specific case of an older woman who was seventy years old is worth narrating. She indicated that she equally has economically vibrant children footing her health care bills at the Centre's clinic apart from her wealth. In the same vein, another participant from Abeka-Lapaz was a successful Ghanaian resident of the United Kingdom (UK) who came to get some medications to return to the UK the next day. She indicated that the airfare to Ghana and other expenses incurred during the visit to Ghana could equally have paid for her treatment in the UK. Still, instead, she preferred the medication from the Centre because that worked for her better.

Community members in Mampong also did confirm the diverse profile of clients. They got to know this because some clients were people travelling to the area for the first time and would alight in town and ask for directions to the Centre. Yaw, one community member, confirmed that "the people from Kumasi, Koforidua, Nankese, Nkawkaw, and others, are those who mostly patronize the place. They are always there in their numbers. The people from here are few."

Interviews with other participants who were not clients of the clinic at the Centre had similar views regarding the popularity of the Centre. For example, operators of a pharmacy and herbal shops in Accra revealed the high patronage of the Centre's products. Greg, a senior police officer, stationed in Kumasi and the Centre's client, attested:

> I was happy when I came here because I finally got a remedy for my typhoid infection. I was first diagnosed at the Police hospital and then at the 37 Military hospitals, but those drugs couldn't help me. So, I decided to come here. So, I prefer herbal medicine to be orthodox because of that sickness. The distance is not a problem at all because of the benefits and satisfaction.

He explained that he started visiting the clinic in 2013 when he was in Koforidua before being transferred to Kumasi. The distance did not stop him from coming to the clinic because of the benefits derived from the Centre's products.

Esi, a social worker with a second degree in Social Work, was a first-time clinic client. For her, coming from the Ashanti Region to Mampong-Akuapem to access traditional health care was based on recommendations from friends regarding the Centre's credibility in plant medicine research. The success stories from friends put to rest all fears and scepticism about traditional medicine. She said:

> Friends made me understand that it was our grandparents who attached fetishism to the practice of traditional medicine. So, things were fearful. But research has shown that all plant parts are potent. So, if you can handle the plant parts well, the medicine will be efficacious. So, today, that fearful aspect is no more due to the Centre's research and trials.

Hope, an accountant from Koforidua, shared his first-time experience with the clinic as follows:

> Way back in 2008, I was then in Kwahu; I fell sick. I had some feverish conditions. When I went to the hospital, they gave me malaria drugs. It didn't help. I went back, and they just changed the drug. So, I came to Koforidua, the same thing. Then it got worse. My mum

> heard about this place (Centre) and brought me. They gave me medication. When I went home, 'kpa' I got well.

The popularity and resort to the Centre need further explanation. Casual conversations with clients at the Centre and on-board public transport revealed that some of them were referred to the Centre as a last resort because biomedicine failed to meet their health care needs. Some participants also mentioned they use herbal medicine because the mode of administration of conventional drugs was not appealing to them. For example, Awo, a seventy-year-old with a diabetic condition, chose herbal medicine over orthodox because of her fear of injections, which she could not escape because of her condition. Asked why she did not like injections, she retorted: "No! To wake up every day and give me injections is out of the question."

Despite the Centre's popularity, some participants were still not happy with the long waiting hours at the clinic and wished the Centre could expand its services to avoid the long queues. Comments from participants reflect the way they feel about the time they spend at the Centre. This was what James had to say:

> I think they have to expand their services. It seems people come here a lot. And I don't know about their staff, but there are long queues most often when you come here. I think the workers are not many. I don't know the number of doctors here, but I think space and the medical staff are not enough compared to the number of people who come here.

Maame also added, "waiting for a long time. That is the only problem I have seen here."

The participants' frustration made some of them propose solutions to the long queues and time spent at the Centre. For some, the solution lies in expansion. Expansion in their case refers to several variables, including the building of more structures at the Centre or the establishment of at least two more Centres in the country, especially in the middle belt such as Kumasi or Techiman. Then another in the north of the country, in Tamale, Wa or Bolgatanga, and building one in each country region. There was consensus among participants that once the clinic falls under public

service and a national asset, their services have to be expanded, made available and accessible to all nationwide. As Greg put it:

> The government should establish more Centres. Every region should have one. So that one will not have to travel far before having access, because it is well accepted that they are good. So, if they are reasonable, why should they be one? Even when individuals establish companies and they are flourishing, they move to other areas and establish more. So, the government should establish this kind of clinic in all regions. It should be accessible. Some of the private ones are cheating people.

The observations by clients regarding the Centre link well with the Theory of Social Selection (TSS), which suggests that the structure of a health delivery system and its mode of operation determine the kind of clients it attracts. The theory maintains that the characteristics of the individuals and groups attracted to a particular health delivery system determine whether they are self-selected or a captive audience (Johnson, Cohen, Dohrenwend, Link, & Brook, 1999; Mechanic, 1978). This point is pertinent as the study showed interest in finding out how the Centre's mode of operation appealed to clients of traditional herbal medicine in Ghana.

The critical question was whether these clients were self-selected or just a captive audience? And whether clients considered the herbal drugs as constituting traditional medicine. The responses from clients of the Centre who participated in this study leave no uncertainty that they are self-selected and not a captive audience. They also still perceive the Centre's products as traditional. This question was asked because of the assertion that clients of traditional medicine are usually of low socioeconomic status, determined by educational attainment, income, and occupational status (Johnson et al., 1999). And have no alternative than to stick to traditional medicine because it is a cheaper option (Tabi, Powell, & Hodnicki, 2006a). This study has shown instances where biomedicine has been cheaper than herbal medicine, especially with diseases covered by the National Health Insurance Scheme (NHIS). For example, most chronic diseases are covered by

the NHIS, and routine drugs usually are not paid for out-of-pocket (Aikins, 2005; Asante & Avornyo, 2013b). Awo's response to the question of which option was more expensive to access was revealing, as she explained: “I was going to the hospital with NHIS. I was not paying for the drugs they prescribed. But over here, because you need the healing, you will pay without recourse to NHIS.” Awo was not an exception; almost all the participants mentioned that they chose to patronize the Centre's clinic because thorough research went into the plants used for the medications. They were prepared under hygienic conditions, making them safe and efficacious.

It was clear that the clinic's characteristics through its structures, including the safety and efficacy of the herbal drugs, contributed to attracting their clients. Also, it was indicated that diagnoses made were reliable because of careful diagnostic tests conducted. These attributes were augmented by the warm reception that workers gave to their clients.

In a related study, Tabi et al. (2006) mentioned education and religion as influencing choices of healing modalities. They indicated that the educated elite was concerned about hygiene. Some found it demeaning to accept information from traditional medicine practitioners who were less educated, while those of the Christian and Muslim faiths associated demonic influences with traditional medicine and thus preferred to use biomedicine. As some of the issues mentioned are particularly true of a section of Ghanaians in their care-seeking behaviours, the same cannot be said of clients of herbal medicine at the Centre. Therefore, this study refutes the findings of Tabi et al. (2006) and argues that in line with TSS, the interventions put in place by practitioners regarding the services they provide and how they do it determine their clientele.

Consequently, the Centre and traditional medicine practitioners in Ghana who have followed the Centre's lead attract a clientele of high socioeconomic status and have the capacity to satisfy their health care needs. Besides, evidence suggests that the traditional medicine landscape in Ghana is

filled with various practitioners as there are different therapies and approaches to healing (Senah et al., 2001). They are mainly categorized, in many indigenous contexts, as herbalists, spiritual healers (priests/priestesses of deities, diviners, exorcists), faith healers, bonesetters, and traditional birth attendants, among others (Danso, 2005; Marsland, 2007; Nordeng, Al-Zayadi, Diallo, Ballo, & Paulsen, 2013; O'Connor & J., 2001; Poudyal et al., 2003; Rasmussen, 1998; Tabi, Powell, & Hodnicki, 2006b; Wane, 2011). Although different in perspective, the common factor that binds all these practitioners together in the traditional medical setup is herbs in healing, albeit the use of other substances, including animal parts and rituals, as established already.

However, the approaches to healing and therapies at various locations differ since traditional healing is culturally and geographically specific (Wane, 2011). Some are also identified as specialists instead of generalists in traditional medical practices; for example, the bonesetters are a specialist group of practitioners (O'Connor & J., 2001). This study found practitioners in all the categories mentioned above. They acquired their healing knowledge through inheritance, apprenticeship, learning on the job, training in school, divine calling, and impartation as a result of good behaviour or kindness, as confirmed by other studies (Rasmussen, 1998; Senah et al., 2001; Tabi et al., 2006b; Wane, 2011). All these traditional healers fall into one or more of the three categories discussed in Chapter five as *transformers*, *semi-transformers* and the *non-transformed.*

Some healers affirmed belief in two forms of illness in this world – physical and spiritual – and until the assistance of a spiritualist is sought, healing would be impossible if plagued with a spiritual illness. Nana Susubribi, a traditional priest and a spiritual healer who was contacted to clarify some of the issues mentioned above, explained:

> So now the physical illnesses are few. We all know that there are germs, and so we take measures to protect ourselves. Why then do we fall ill? There are spiritual illnesses, as I have already said. Some time ago, a lady came here to say painful things to me… she insulted my ancestors. They are all spirits now, and so if they decide to fight her, will she be able to stand? She will visit all the hospitals in this world, but there will be no healing for her. Unless she comes here to retract, she will not be healed. That's what we believe. This has led me to believe that there are more spiritual diseases than physical ones.

Wofa Yaw, another healer who doubles as a producer of herbal drugs, expressed the view that "there are people who are not able to marry and it is not because they are ill, all these can't be explained with knowledge from books. Some work all their lives and yet have no money. Traditional medicine can heal such people."

Similar findings were made by King (2012) and Dahlin (2002) in South Africa and Zimbabwe, respectively. In a South African rural setting, interviewees confirmed that they went to church to pray during the day and visited spiritual healers at night because not all illnesses could be handled in the hospitals and clinics by Western-trained medical practitioners. In the same vein, Dahlin (2002) also observed that ancestral spirits could influence the health of members of their ancestry in both positive and negative ways. For example, being bewitched required the intervention of a spiritual healer and not a doctor (King, 2012). To bring relief to the afflicted usually required some rituals for reconciliation between the two parties, and healers possessed by healing spirits were called upon to intervene (Dahlin, 2002).

Also, McClenon (1995), in a survey on supernatural experiences and spiritual healing among students in the United States of America, found that the practise was common in America, Japan, China, and Great Britain, even though these are all nations advanced in science and technology. As shown above, supernatural experiences among healers may be culturally specific, but they are pervasive and not particularly unique to any culture or space.

The examples above support the argument advanced by this study, which is that the healing approaches and therapies practitioners adopt and the structural interventions they put in place determine the kind of clients they attract, thereby putting the assertion of Tabi et al. (2006) in perspective. There is evidence of people still holding on to beliefs in the magico-religious components of traditional healing in Ghana and elsewhere, including the developed world. Therefore, spiritual healers still have clients who are also self-selected.

Furthermore, the study made other findings that buttress TSS among clients of traditional herbal medicine. Clients are the agents of the decisions made in visiting one traditional herbal medicine practitioner or another by assessing their care-seeking practices. Responses from participants showed that some clients seek care with two or more practitioners during one episode of illness. Pluralistic care-seeking behaviours, seeking care across medical systems were also identified among participants, where some clients of herbal medicine seek biomedical care simultaneously. Several reasons accounted for this kind of behaviours by clients.

Healer-shopping is defined as "the use of a second healer without a referral from the first for a single episode of illness" (Kroeger, 1983). It has been identified in the literature of care-seeking as "healer-shopping," which is a derivative of the term "doctor-shopping," popularly used in biomedical circles (Aikins, 2005; Sansone & Sansone, 2012). Participants who decided to seek herbal medical care due to dissatisfaction with the biomedical system also claimed they wanted to test the effectiveness of the new care system, which is the traditional system, before giving up biomedicine completely. Yet still, others were of the view that choosing between biomedicine and traditional medicine depended on the kind of health problem confronted by the individual.

Some health problems could easily be catered for by traditional herbal medicine. As such, it would not be necessary to go through the cumbersome processes of accessing biomedicine, while others

presented symptoms too complex for traditional herbal medical practitioners to handle. Examples were given as cases involving surgery and other technical procedures. Asked why he chose herbal medicine over biomedicine, this was what Fred had to say:

> I will say it depends on the type of sickness you have. So maybe for orthodox, they have some special effects on the type of sickness you have. I think when it comes to this fever and stuff, the herbal is much better. I've not chosen herbal medicines completely over the orthodox ones. Like I am saying, it depends on the type of sickness. So, in my opinion, it is the type of sickness that will make me chose whether I will go to a herbal or orthodox practitioner.

Aku's response also indicated that some practitioners do not prepare the herbal medications well, thereby failing to meet the health needs of clients and caused them to move from one practitioner to another. Aku explained:

> If you're not feeling well, I will advise that you come to the Centre. When you take their medicines, it's just like you preparing them at home. You get to know that when you taste it. They've not mixed it with any other substance as we find at the drug stores. You take some herbal drugs, and you'll experience a burning sensation in your mouth that alone testifies to the problems. So, I will implore everyone to visit this facility when they are not feeling well. Being here will ensure their speedy recovery.

Meanwhile, the opinion of the interns at the Centre was sought on the issue of healer-shopping, and Festus opined:

> We also go to Tetteh Quashie to learn some techniques in medical practices as the orthodox sector undergoes surgeries and all that. Some conditions involve surgery, so we go there to learn some of these conditions. We, the medical herbalists, cannot use herbal drugs to treat; at least we can recommend our clients to go to orthodox hospitals for surgery.

Participants indicated they got to know about the Centre and other traditional medicine practitioners through friends and family, social networks and religious group members, print and electronic media advertisements, and referrals by practitioners within and across practices, as indicated above in George's response.

In addition to the above, the participants' responses also pointed out that they assessed the caregiving systems by their knowledge of health problems, level of technological know-how, and accessibility. All these issues together re-affirm the assertion that selection issues manifest in personal, interactional, and structural dimensions (Aikins, Owusu-Babo, & Agyemang, 2013; Johnson et al., 1999; Mechanic, 1978). As indicated already, the Centre's influence in the country goes beyond the formal ways discussed above. Therefore, the following section turns to the remote influence of the Centre in the practice of herbal medicine in Ghana.

### 6.3 Remote Influence of the Centre

Apart from working to achieve its mandate directly, the Centre has also influenced the practice of traditional herbal medicine remotely in many ways. First of all, former employees and others who learn from the Centre sell the ideas to private people or work with other practitioners when they leave the Centre. Participants explained that the Centre is a public entity that hires and fires employees occasionally while workers also retire or resign. These realities enable such individuals to quickly sell their ideas to others outside of the Centre or go into private practice. Sally again explained the Centre's remote ways of influencing the practice of herbal medicine in Ghana in the following manner:

> As the Centre started growing, people who came here to learn sold the ideas or knowledge to other private people. Sometimes, it could be their friend to do so for free or just for a bit of token. Other times the person goes to work for private people. So, the ideas emanate from this place to a large extent. So, as I said, we influence the practice unofficially too.

Sally further explained:

> To give a typical example, to support my claim regarding our Centre and industry, Kasapreko, the industry that produces alcohol, approached us in the very early stage of their business operation for us to develop a formula for them. We developed the concentrate,

> which they came for in gallons. Then they lend the concentrate on alcohol and sell. Today it's an international multimillion-dollar business. Just from the development of Alomo and for the fact that it is doing well, you see a lot more people investing in alcoholic bitters. Today it's one of the thriving industries in Ghana. If you put together the alcoholic bitters industry, the number of people they employ is enormous because we developed Alomo for Kasapreko. The import of this is that the first point of contact or formal engagement was with Kasapreko. Their success story has influenced other companies in the brewery industry, some of which the Centre does not know. These are the informal ways.

Still, on knowledge from the Centre spreading remotely, Ali also said, "I can tell you that, virtually all the formulas we have, if you take the bitters industry, all the formulas; Joy Daddy, Agya Appiah, all those formulas came from here (Centre)." As earlier discussed, the Centre's involvement with the brewery industry led to the withdrawal of WHO's support, and it lost its status as a WHO collaborating Centre. The Organization did not consider that move as part of the Centre's mandate of developing herbal medicine.

Another remote influence of the Centre has to do with the fact that its current employees run workshops and consultancies privately, some using the Centre's resources. It was pointed out that these days, people find cheaper ways of doing things. So instead of entering into direct partnership arrangements with the Centre for its services, they choose to fall on individual employees of the Centre privately. Zak explained thus, "Okay, so I've talked about cheaper ways of doing things; if they come here and say give us a formula, it's more expensive, but if they approach an individual and tell them to help develop the herbal formula, it's much cheaper. So that's it." However, Zak was of the view that factors, such as the bureaucracies involved in partnership arrangements, the quest to do things the right way to produce authentic results, the money involved to accomplish the task, and time to ensure successful trials all together deter people from approaching the issues at an institutional level. If they can get an individual privately to do something cheaper and faster,

why bother with all the formalities and costs involved? After all, it will be the same knowledge that is applied unofficially. Zak again had this to say:

> Instead of partnering with us, people look for faster and cheaper ways. If they come and say they want to partner with us, we'll take our time, go to the laboratory, go through a lot before we give something; but if they call one scientist right now, he'll give them something and within a month and they'll start producing. But as an institution, we do not do that. We will go through the test to ensure that what we are giving is safe and effective. But you know, for some, business is business. Time is money, as some say, so they have no patience, and of course, you need to put money into something like this, and they don't have money for this kind of thing.

The responses from Ali, Sally, and Zak indicate that the Centre, as an entity dealing with the knowledge that is traditional by origin, really cannot do much when it comes to protecting the knowledge. For patent and priority rights have long been identified as issues to contend with in traditional medicine practice around the globe (Osseo-Asare, 2014). Therefore, the only means by which all practitioners protect traditional medical knowledge in Ghana is secrecy. Employees are bound by an oath of secrecy that can no longer be in force once a person ceases to be an employee.

After acquiring knowledge from the Centre, some employees resign and establish private practices. Medi Moses was an example of such former employees operating with traditional medical knowledge acquired from the Centre on prostate enlargement. This information from the Centre was confirmed by an elder from the community, Opanyin Kofi, and he said the following: "They come here to work at the Centre, and when they know how to prepare those drugs, they move out. Medi-Moses worked there for several years. His formula is from the Centre. Where else did he learn it from? But see how he is popular now. Look at the clinic he has set up."

Asked how the Centre is dealing with the problem of inappropriate ways of their trade secrets being leaked to outsiders, Ali again answered:

> No, we don't see it as a problem. We are a government institution. We are not in competition with anybody. So, as Ghanaian and wishing that our nation prospers, it is okay to join a private industry and support them with our knowledge. If the private company grows, they employ more people, reducing unemployment, and bringing Ghana some income.

Another dimension of the benefits of herbal medicine, through the Centre's remote influence, emanating from the responses above, is that the industry has created job opportunities in the country over the years. The herbal medicine industry opens employment opportunities along the value chain, that is, right from the cultivation of medicinal plants through processing the finished product, distribution, and sales. This point was also emphasized in some lectures delivered during the 2018 edition of the 'Dr Oku Ampofo's Memorial Symposium', the third in the series initiated by the Centre.

The symposium aimed to highlight the Centre's achievements and had the theme: "Plant Medicine for Health and Wealth: Moving Toward a Ghana beyond Aid." Talking about plant medicine for health and wealth as a national agenda implied that the Centre's influence had gone beyond its official engagements. Delivering the opening address, the then Executive Director, Prof. Augustine Ocloo opined that, the country had not shown considerable interest in the cultivation of medicinal plants. He stated: "Government's policy of planting for food and jobs, could adopt this venture: Planting for Health." He explained that the nation could reposition itself to benefit from a significant proportion of the enormous global market share of herbal medicine through this venture.

The former director's call for considerable attention to the cultivation of medicinal plants by the nation cannot be overemphasized, as there has been a worrying development recently, to the effect that trade in medicinal plants will lead to an over-exploitation of the plants. In a quantitative market survey in 2010 (van Andel, Myren, & van Onselen, 2012), it was discovered that

951,000kg of crude herbal medicine was sold per annum at Ghanaian city markets. With a corresponding annual domestic market and export values of Seven Million, Eight Hundred Thousand, and Fifteen Million United States Dollars, respectively. The figures were reached from a survey of selected city markets in the country. They did not give a complete picture of what Ghana stands to lose, albeit the economic gains, if attention is not directed towards replenishing the fast depleting vegetative cover, including important medicinal plants across the nation.

The discussions above have shown how influential the Centre has been in the Ghanaian traditional herbal medicine industry directly and remotely. However, an overwhelming majority of the community members who participated in this study held dissenting views about the Centre's influence. Therefore, the following section concentrates on the perspective of the inhabitants of the Mampong community concerning the Centre's performance and influence.

## 6.4 Mampong Speaks

The preceding discussions have evaluated the outcomes of cross-cultural technology and ideological transfer that emanated from the activities of the Centre and practitioners. It is argued that the trust and duty reposed on the Centre by Act 833 acted as a catalyst for patients or clients to patronize the Centre. This section contrasts the views of practitioners and clients with those of Mampong residents. They have a completely different outlook or view of the operations of the Centre.

The Mampong community forms the Benkum division of the Akuapem paramountcy. Beyond traditional politics, Mampong also shares solid social ties with adjourning settlements of Mamfe, Larteh, Abotatyi, Tutu, and Obosomase. Community members, in this study, suggested a disconnect between the Centre and the people. In other words, the Centre had not done much in

the performance of its social responsibilities. The institution has not given back to the community concretely for the support it has enjoyed over the years.

Participants felt the Centre could offer employment to the indigenes and support community projects. Indeed, they indicated that Ampofo was an indigene of Mampong, and during his time, he offered some free services. So, as part of the Centre's social responsibility, services should be rendered to the entire community with some concession or at least to the under-resourced. Below are sentiments expressed by Opanyin Kofi, one of the elders of the community:

> We just heard that there is a new director. He hasn't come to the traditional council. Since they have a new director, they will be forming a new board soon; there is the need to put an indigene from Mampong or even the Chief from Mampong on that board. This will help them promote the cause of the Mampong area. If something is going on which will affect the town negatively, that indigene will feel it more than an outsider. Most of those who consist of the board are not from this area. The director is not from this area. He is a government worker. Whatever the case, at the end of the month, he will be paid. Even if the place collapses, he will take his certificate and go somewhere else. When they started, the Okuapehene was part of the board. After his demise, they haven't put anyone else on the board. Even those from Mampong who say we own the place because our brother set it up to don't pay any attention to us. This is very problematic.

Concerning royalties and benefits for the land where the Centre is sited, Opanyin Kofi again lamented that "they don't pay any royalty to anyone. The thing is that the people living here always want glory for the place. And so if you have a business that you want to set up here, the chief can lead you to get a plot of land here so that your establishment can bring honour to this place."

Like Opanyin Kofi, Opanyin Kwadjo was also concerned that the community's youth did not get employment opportunities at the Centre. He was equally concerned that the head of the institution, in most instances, was not from the area, which for him, created the problem of community leaders not having access to the leadership of the Centre for deliberations. He lamented thus:

> I have realized that most of the Centre's workers are not natives, and the head has always been an outsider. So, when the community people or elders want to meet them for some things to be done, it is always tricky getting such a manager or head to hold such a meeting. Assuming we had our own who has studied to some extent and could manage the place, it would have been easier meeting such a person to discuss how to improve the facility. But since the heads have not been natives, they don't think about making any innovations at the Centre since they feel they may go anytime soon.

Fiifi, a community member, also added the following:

> When Dr Oku Ampofo was alive, there was a percentage of the benefits from the Centre that the people enjoyed. This was because the land that he used to build the place was not sold to him. The chiefs thought that the place was going to benefit the indigenes if things worked out well. And even if for nothing, the young men and women were going to get jobs there. But for the past 20 to 30 years, I don't believe any royalties have been paid to the chiefs and the people.

Meanwhile, the Centre continues to rely on the community in various ways to execute its mandate.

Jonah, a research scientist of the Centre, elaborated:

> When we are looking for a plant, the community is the first point of contact. They are the immediate people, so we have to solicit their help. For example, we go with a part of the plant or the common name and ask them if they have seen some in the vicinity. We research to find out what the people call that plant locally, like nibima, and then they tell us where we can find it. So, we rely on them.

For the people of Mampong, their expectation, after Ampofo left the scene, was to have another indigene or at least someone from the Akuapem North District to be at the helm of affairs at the Centre. This unmet expectation, over the years, gave the people cause to feel left out in the affairs of the Centre, which they consider their own in some cases. They felt the Centre had benefited from the community in various ways, examples of which have been offered already. Unfortunately for them, the Centre had not given back to the community in any substantial way. Thus, leaving them without benefits from the Centre's activities. Hence the conclusion that the Centre's influence is not felt within the community.

The concerns and views ventilated by community members needed some authentication from the Centre. Interviews with the Centre's management revealed employment to indigenes, albeit in the lower levels. The reason was due to the lack of requisite higher qualifications that applicants submitted for employment. Management indicated that the Centre was a public institution. If members of the community applied for higher positions and higher jobs, there was no way that they would not be offered the jobs. Additionally, the Centre had supported the celebration of festivals in the area.

Shanley and Laird (2002) explained that though local communities, like Mampong, are essential stakeholders in medicinal plant research, researchers and research institutions mainly consider the research process as complete without the involvement of the communities once research findings are published. In the end, vital information on the scientific understanding of research projects is not shared with the communities. The responses above show that it is kept by scientists, academics, and policy-makers, thereby generating tensions and conflicts between the two parties. Meanwhile, through international organizations on intellectual and environmental rights protection like the World Intellectual Property Organization (WIPO), some local communities have argued for secured greater awareness of their rights, as has been made evident in the grievances poured out by participants from the community.

Even though their concerns can be seen as an exercise of an essential human right, community participation also ensures the effective implementation of project objectives. It enhances understanding between the two parties, averting potential conflicts. It can take the form of information distribution, consultation, negotiation, collaborations, and the empowerment of communities (Laird & Noejovich, 2002). It is evident from the findings of this study that these elements of community participation are not seen in the Centre's relationship with the people of

Mampong. The evidence suggests that it is incumbent on the Centre to find ways to make the community participate in their activities.

Regarding community representation on the Centre's governing body, the old Decree of 1975 (NRCD 344) provided that. The document states: "Two persons with a special interest in plant medicine nominated by the Government, consideration to be given to traditional rulers." Therefore, the Okuapehene was the traditional ruler nominated to serve on the Council, as the governing body was referred to in the 1975 Decree establishing the Centre.

An examination of the current 2011 Act (Act 833) shows that provision was not maintained. It was replaced with the following: "One traditional medicine practitioner nominated by the Traditional Medicine Practice Council in consultation with the associations of traditional medicine practitioners" (ACT833, 2011). This explains why no traditional ruler or community member was nominated to serve the current governing body, making the people unhappy. Participants indicated that it hindered information distribution – the form of community participation ensuring information flow from one party to another. Opanyin Kofi again intimated: "if there were an indigene on the Centre's Board, the person would've been able to direct all the complaints to the Centre for a possible redress."

Participants made it evident that there were no written agreements in any form regarding the relationship between the Centre and the community at the time it was established. The community saw its participation as a venture that would yield beneficial results and bring honour to the indigenes since the founder was "one of our own", as Opanyin Kofi stated. It is pertinent to point out that research relationships require continuous revision because of the changing circumstances of local communities. Equitable relationships are shaped by prior and continuous recognition of the fundamental rights of these communities (Laird & Noejovich, 2002).

It is noteworthy that the initial participation of the community, through consultations, negotiations, and collaborations, with Ampofo to a large extent, contributed to the attainment of the Centre's current status. So, the community needs to be catered for in appropriate ways to enhance a better relationship. The following is a lament from another participant, Yaw, which serves as additional evidence to their concerns:

> Now, they have taken the supply of herbs to agents who buy and retail to the Centre to sell these herbs at higher prices. That's contributed to the fall of the Centre. You'll realize that there are so many formulae that past workers have taken out. All the traditional leaders in this town accept innovations and businesses just so the town's name will go far. When you look at the whole Akuapem area, Mampong is widely known compared to the other towns.

Apart from issues of equitable relationship with the Centre, participants lamented that the Centre, with all its influence in the practice of herbal medicine, has failed to secure coverage of NHIS for its products making the clinic inaccessible. Participants expressed this with bitter sentiments as they felt indigenes should also enjoy the services of the Centre without barriers.

Some also felt excessive use of chemical preservatives in producing herbal medicines reduces potency. Yaw again lamented:

> Our people don't patronize the place. That's from my observation. Another thing is the fact that now it's being controlled by the government. Some individuals manage the place, so the community people have lost interest in it. They also don't take health insurance. And some of their drugs are also very expensive. If you take their prostate drug, a pack of capsules is GH₵25. That's expensive. An older man may not be able to buy. It's not as if after you take the GH₵25 worth of capsules, you will be well too. You will have to take more.

These issues are of significant concern to the people because the study found that about seventy per cent of participants over forty years of age had been diagnosed with high blood pressure (HBP). As a chronic disease, patients with HBP need to be under constant medication to avoid a crisis. As indicated in Yaw's response above, the people find the Centre's medications very expensive. For

example, the Centre's product called Lippia Tea is meant to relieve stress, and therefore, often prescribed for HBP patients, is sold at GH₵7 per packet at the Centre. It contains twenty bags of tea. The direction for use is: "Place two bags into two teacups of freshly boiled water (approximately 500mls) for five minutes". For the dosage, it prescribes: "Drink one prepared cup in the morning and repeat same in the evening."

The above means that the patient is required to take four tea bags in a day, and in that case, a packet will last for only five days. In effect, a monthly dosage, as the case may usually be with the HBP patients, will require six packets of Lippia Tea at a total cost of GH₵42. This cost has a lot of financial implications for the community because the average household income, that is, the amount spent on items for the people of Akuapem North Municipality of which Mampong is part, is GH₵ 4.00 per month (E.R.C.C., 2016).

To compare the above with the cost of staying on a conventional drug for HBP for the same duration, the researcher contacted some pharmaceutical shops in Mampong and Accra. Interviews revealed that it is much cheaper to manage HBP with orthodox medication than staying on Lippia Tea. For instance, it was indicated that the most typical drugs prescribed for HBP in Ghana are Amlodipine and Nifedipine. A thirty-day dose of Amlodipine comes in varying strengths of 5, 10, and 20 milligrams (mg). These have a price range of GH₵3 to GH₵10, GH₵5 to GH₵15, and GH₵10 to GH₵20 respectively for both local and generic brands. On the other hand, Nifedipine comes in strengths of 10, 20, 30, and 60mg. The price range for the strengths are GH₵2 to GH₵7, GH₵5 to GH₵10, GH₵5 to GH₵20 and GH₵10 to GH₵30 respectively, also for both local and generic brands.

It was explained that the country of origin of the drugs, the pharmaceutical company, type of packaging, and the retail profit margin, are responsible for these price differentials observed. The

innovator brands cost much higher than the local and generic ones because of patent rights, which have not been included above. Apart from the fact that these orthodox drugs for HBP management averagely cost less than Lippia Tea, they are also covered by NHIS and will go without an upfront payment if one is a member of the scheme.

Aikins (2005) underscores the importance of the NHIS in reducing the cost of treatment for chronic diseases in Ghana. Unfortunately, neither the Centre's herbal drugs nor any other in the country are listed as essential medicines to be covered by the insurance package mentioned in the preceding discussions. In and around Mampong, predominantly the under-resourced, patronize Tetteh Quashie Hospital and other bio-medical facilities because NHIS covers their services.

This discussion has shown that even though the people of Mampong acknowledge the Centre's enviable reputation in the herbal medicine industry, the effects of this good work are not felt in the community because of neglect, not only by the Centre but also by policymakers. This neglect, also discovered among other stakeholders of the Centre, constitutes the focus of the following section.

### 6. 5 Tensions, Conflicts, and Contradictions

About eighty per cent of participants in this study postulated that the Centre has the key to the development of traditional herbal medicine in Ghana; as such, it needs to be supported by all stakeholders to play this role effectively. Yet, some contradictions inherent in the current arrangements the Centre has with some of its stakeholders were revealed. These contradictions lead to tensions and conflicts between the Centre and its stakeholders. In effect, this section shows the extent to which the Centre reflects the struggle between healing knowledge in herbal lore and Western hegemonic knowledge in health care delivery.

Discussing the tensions and conflicts arising from the imposition, as purported by participants, of Western hegemonic ideas on traditional medicine through science, the study was inspired by the work of Pherali (2011). The analytical framework on the role of education in fuelling conflict in Nepal was adopted. It was used to analyse the role played by modern science in entrenching "inequality, exclusion, social polarisation, and even legitimising inequality" (Pherali, 2011, p. 137). In this case, inequality between traditional healers, science advocates in general, and the Centre in particular.

As reported in the previous chapter, participants had problems with what they called the 'over scientification' of the Centre's activities, emphasizing that herbal medicine is part of our culture, hence the saying in Akan, "yɛnkote aduro a ɛne ahahan". It means, "herbs constitute the foundations of medicine." Still, beyond the literal meaning, the proverb was explained to the effect that our forefathers had nothing to rely on for medication apart from plants, "plants were medicine and medicine was plants" as Jonah put it. Hence the import of a proverb regarding herbs even when the more profound meaning had nothing to do with medicine. Most orthodox medicines are also plant-based. Research is still ongoing globally to isolate more active ingredients from plants for drug development – a venture in which the Centre is also engaged.

Yet, science undermines the significance of cultural values attached to plants. Participants expressed that medicinal plants' appropriate cultural and social importance should not be detached from the Centre's product development activities. This point was reinforced with the explanation that traditional names given to plants in various localities are intricately related to the benefits derived from the plants and the people's socio-cultural values. For example, Alstonia boonei is a perennial plant predominantly found in the southern sector of Ghana. Among Akan communities, it is called 'Nyamedua', which means 'God's tree'. It is indicated that Nyamedua has several

medicinal uses. Its bark, leaves, and roots are used to relieve rheumatic and other pains, while the leaf-sap is used externally to cleanse sores. The sap in the bark is also used to treat some skin diseases. In Ghana, a decoction of Nyamedua is traditionally administered after delivery to help expel the placenta (CSIR, 2020 ).

Beyond the therapeutic value, the tree has spiritual significance for the local people as it links them to the divine. Thus, the name ‘God’s tree’. The explanation points to one thing – overemphasising scientific processes in medicinal plant research prevents a full appreciation of the plant and limits it to medicinal properties. Here, science as a source of conflict is seen as an embodiment of “socially, and culturally prejudiced values” (Pherali, 2011, p. 136) imposed on indigenous knowledge through the institutionalisation of traditional medicine, with the Centre's influence: making traditional healers the disadvantaged social group.

Consequently, this conflict is perpetrated by the social inequality between the two groups and exacerbated by overemphasising scientific ideas in product development. Participants were, therefore, of the opinion that a better approach is to consider product development as teamwork with scientists, sociologists, traditional healers, and community members working together. This way, all that the plants stand for could be understood, and the value of how particular cultural practices are used to preserve plants will not be lost, for plants represent more than just a health care system. The following was what Usiff said:

> We won't get all it offers if we do not attach the appropriate cultural and social importance to medicinal plants. For example, if you are told at a village this plant is called 'Nyamedua', it means it is more than just a plant to be used since the name indicates something about God. You deprive yourself of knowing the full importance of the plant. But suppose you go as a team (scientists, sociologists, traditional healers, community members). In that case, all that the plants stand for can be understood, primarily how they use cultural practices to preserve certain plants.

Nana Susubribi emphasized the importance of cultural practices in traditional herbal medicine practice when he pointed out:

> Will you believe that there are some herbs we pluck with money? Unless you put money under it, it will not work. There is a tree that when you apply honey to its bark after cutting it, you'll go to see the tree in its original state after three months. There is a tree that when you apply shea butter, after three months, it will be just as it was before it was cutting. Our ancestors taught us. We didn't go to school. They gave us visions to teach. We don't take herbs from the bush anyhow."

These are severe issues to consider because plant conservation and sustainable harvesting have become issues to contend with in the herbal medicine industry in recent times. Some of these cultural values attached to herbs and healing are amenable to scientific explanations and must not be ignored by scientists just because they appear 'unscientific'. For instance, applying honey or shea butter to certain trees after peeling off their barks, as Nana Susubribi pointed out, indicates that certain chemicals in the two substances help replenish the plant's bark faster than it would naturally have done. In most traditional societies, all that healers had were herbs, as illustrated with the Akan proverb above. As such, it was pertinent to institute and enforce practices that could protect plants from indiscriminate use.

Scholars have acknowledged that since the advent of biomedicine in various indigenous societies, traditional medicine has been challenged by practitioners of the former for purported lack of scientific evidence despite its long history of effective use (Pan et al., 2014). Therefore, all these social and cultural factors drive herbal medicine in modern Ghana and should not be underestimated. The discriminatory practices in scientific plant medicine research must be eliminated if there is going to be a relationship devoid of tension, and conflicts for that matter, between healers and advocates of science like the Centre.

Healers also complained of a trivialisation by scientists of their healing claims. About this, Wofa Yaw lamented:

> Let's say someone has a kidney problem, and you go and tell the FDA you have a kidney cure; you will be slapped. If you tell them you have a cure for diabetes, they will slap you if you are not allowed to mention that we have herbal preparations that can cure some of these illnesses; how do you even go beyond to subject it to testing. They should first believe what we tell them before they come out to comment on it based on their findings. I was the first person to produce medicine that could manage the problem of bedwetting. I took it to the FDA, and it was approved. They later wrote to tell me not to advertise it or even sell it even though they had approved it. So what sense is there in wasting my money?

Ussif, even though not a practitioner but an advocate of the importance of cultural values in the effective use of traditional medicine, responded to the issue of scientists trivializing healing claims by healers as follows:

> The resort too readily to books. Sometimes, when they hear herbalists say, 'I can do this instead of being inquisitive, they become dismissive – 'this is not possible, after all, it can't be found in any literature.' But honestly, no proper scientist should say that. Curiosity and inquisitiveness are the basis of science. So, they should be genuinely curious rather than dismissive. They can be too dismissive for my liking.

Interestingly enough, WHO emphasises the importance of traditional medicine because of its cultural significance and how much it can contribute to the development of nations. It is, therefore, not surprising that earlier governments supported the establishment of the Centre to champion the cause of traditional herbal medicine in Ghana. The un-supporting attitude towards healers, notwithstanding, an official from the Centre, Sally, intimated that "if we get even 50% of drugs used in Ghana to be herbal, the government will save a lot. This has been the government's motivation in the various policies on traditional medicine. It means we need all practitioners on board. Without them, the achievement of this will be very slow." This response reveals that more would be achieved if more traditional healers were brought on board the Centre's plan and their

views accommodated, as the founder did from the beginning, to engender more holistic research into plant medicine. It will help produce more efficacious and safe medicines from herbs to help the government cut down on imported orthodox medicines.

The contradiction inherent here, and therefore, a source of conflict, is that most practitioners interviewed do not see much effort from the government. They cited the lack of political will by successive governments to fully implement the 'nice policies' formulated to develop traditional medicine in Ghana. For that matter, the regulatory institutions are tasked to ensure that herbal medicine develops to its maximum capacity in the country. Practitioners' understanding of a 'good policy' is one that will translate positively on their practices and not the ones that throw them into disarray almost all the time.

Chapter five noted that government policies on traditional medicine only seem to give integrity to the sector through laboratory tests based on scientific standards. In this light, traditional healers appear to be compelled to accept and conform to the prejudiced values of science espoused by policymakers (Pherali, 2011). It is important to emphasise that only aspects of science valuable and helpful for traditional medicine should be applied and enforced. Scholars have argued that traditional knowledge is qualitative while modern scientific knowledge is quantitative, so it must not be applied holistically to the former (Shankar et al., 2007).

Many have noted how modern science can be "restrictive and sometimes dysfunctional" (McClenon, 1995, p. 108) in discourses on indigenous knowledge systems. Therefore, the analytical framework suggests policy reforms based on a deeper understanding of the interrelationship between modern science and traditional medicine and the conflicts this relationship generates.

In addition to the above, practitioners cited the lack of recognition and appreciation as a source of tension and conflict in their relationship with the Centre and other scientists in medicinal plant research and product development. Participants mentioned how healers in various communities, including some who have worked at the Centre, have contributed to research and given out recipes for product formulation without receiving any credit or recognition. The fact that scientific achievements remain the exclusive preserve of scientists despite the evident contributions made by healers perpetuates conflicts between the two groups.

Reports indicated that even at the Centre, there had been instances of this sharp divide between researchers and lower rank workers among whom are traditional herbalists: the highly educated as against the less or uneducated, despite the traditional knowledge with which they have supported the Centre's activities all these years. Now that the Centre relies on suppliers for the bulk of plant parts needed to produce its medications, it was mentioned that it sometimes takes the vigilance and knowledge of some of these herbalists to prevent possible tragedies through the supply of wrong plants. Since plants come in various species with different functions and pharmacological activities, it is not surprising that these suppliers sometimes try to outwit the Centre when getting suitable species becomes difficult. Plant parts are inspected with the help of herbalists to forestall this problem so that the quality of medications is not compromised.

These interventions, most of the time, went unrewarded. Again, institutionalisation legitimises social inequality between scientists and herbalists at the Centre. According to participants, it is intimidating and engenders a feeling of alienation from what they termed their “knowledge and contribution.” Neina bitterly shared his experience:

> I can say all these things openly, even on air. Some suppliers brought plant parts that were not used here. I detected that we had not used those plants for a very long time. I reported it, and all they could do was write a letter of appreciation. I will bring it for you to see.

> Some have stopped working here because of those things. As I talk to you, all I say are facts. Even if the scientists are here, I will say it.

Chelpang, a former employee of the Centre, expressed similar sentiments when rewards were discussed. He mentioned that he was the one who introduced the herbs for preparing one of the most popular herbal drugs of the Centre and yet was not acknowledged in any way:

> I wasn't acknowledged at all. There was one man who also brought medicine for typhoid. He struggled hard and got some small rewards, but the rest of us were not given anything. Oh! since we were Form Four leavers, they didn't regard us at all. Meanwhile, since the researchers came to the Centre, they have not been able to bring any new ideas. It is the same old things that we created that are still used. It is the same old things that they keep turning around. After further research, they take some of the old ideas out, but the formulations remain what we had.

Sentiments shared reveal all credit go to research scientists who lead projects to the neglect and downgrading healers. Therefore, collaborations between the two parties are adversely affected. Some participants also indicated that scientists' failure to acknowledge or recognize traditional healers has led to a kind of unofficial or unauthorised transaction of traditional medicine at the Centre. Concerning this kind of transaction, Nasara opined: "When you visit the Centre, someone can refer you to some former and current workers. They know traditional medicine, but they keep it to themselves and practice it at home because no one will acknowledge them here. People have to see them at home".

Regarding the question of collaborations between the Centre and traditional healers in Mampong and its environs, Awubom, a community member, said: "I have not heard that the healers around and the Centre do exchange ideas. Some healers may wish to be employed by the Centre before they give out knowledge. Because the moment they give it out, the Centre will not mind them again." Osseo-Asare (2014) noted how healers and rural communities had contributed as much as

scientists and drug companies in shaping scientific knowledge on plants and yet have benefitted unequally. The lack of acknowledgement in medicinal plant research has made healers reluctant to divulge information on plant medicine. There are various ways to identify and recognize particular communities and healers who give out medical knowledge. This is an issue that needs the attention of all stakeholders in the development of traditional medicine in Ghana, given that plants have become paramount in tackling the myriad of health issues facing humanity in this 21st century.

More so, the call for scientific research into plant medicine and its subsequent documentation has been upheld due to the increasing recognition that indigenous knowledge stands the risk of being lost or distorted because it is mostly not documented. Patent rights, priority, and appropriation, among other things, have also come up as concerns for the documentation of indigenous healing knowledge through scientific research (Osseo-Asare, 2014). With the support of WHO and WAHO, herbal medicine is increasingly recognized as a tool for development and a means for conserving the environment in the developing world, including Ghana (Parimelazhagan & Chandran, 2010). For these reasons, it has been argued that research into plant medicine should have a public rather than a professional outlook and be viewed as a product of the dominant socio-cultural and political forces (Wayne, 2002).

Furthermore, an analysis of interviews with practitioners revealed that the commercialisation of products works against the philosophical principles of African traditional healing. A traditional healer is not supposed to sell medicinal products or ask a client to pay some money before receiving any remedy for an ailment. The healer was only rewarded after healing had taken place. A 55-year-old healer, Awaaki, who still believed in the philosophical principles of traditional healing, expressed it in words below:

> A healer must empathize and desire to restore good health. Don't think of your reward first. Think of the patient, and afterwards, the possible good things will come to you. You must ask yourself whether the healing is complete or not. If not complete, you must endeavour to do complete work. If it goes beyond you, another helper will appear.

Atorso, a traditional birth attendant, also expressed a similar view when she was asked whether she charges her clients before providing services or not. She explained: "If you are pregnant, I take GH₵40 from you, and that is what I will use to provide herbs till you give birth. After birth, whatever you have from the bottom of your heart, you may bring it to thank me. I don't charge."

The practitioners explained that there is no collaboration among healers because of the commercialization of knowledge and products. It is not out of place for Awaaki to have made this observation because he is in the category of healers who have not yet 'modernised' their practices. Although he was a participant at one of the Centre's training programmes for practitioners, he intimated that it was his first time and had made it for the training because one of his clients recommended that he did and even funded it.

Concerning the above, scientific knowledge conflicts with traditional knowledge and consequently "amplifies social divisions to exacerbate tensions" (Pherali, 2011, p. 137) within and across groups of practitioners. Science instils values, beliefs, and attitudes that are different from the traditionally held ones. This observation corroborates Senah et al. (2001) in their baseline study of traditional medicine practice in Ghana. It was found out that healers did not charge fees for their healing services because they believed that their power would be taken away by the gods and spirits, which were the power sources. They only took a token to commence treatment, and patients returned to thank healers after healing was accomplished.

Contrary to this perspective, others argued that times had changed, and practitioners needed to make a living out of practice. Otherwise, the practice will continue to be unattractive to the youth. The practitioners will die with the knowledge because their children will not like to inherit a profession that is not lucrative. On the other hand, clients alluded to the fact that the fake healers are now many because of commercialization. The industry is now seen as lucrative in the urban centres and so attracts all kinds of disingenuous practitioners who deceive unsuspecting clients and take their money – giving the erroneous impression that traditional herbal medicine is unsafe and inefficacious. For this reason, some herbal medicine users believe that the best place to go for herbal medicine is the Centre, thereby underscoring the influence of the Centre in the practice of herbal medicine, despite all the tensions and conflicts.

As the Centre and practitioners, the relationship between the Centre and regulatory institutions has not been free from tensions and conflicts. Even though the Centre spearheaded the development of herbal medicine in Ghana, its herbal drugs are still subject to the scientific standards enforced by FDA. Some participants intimated that the Centre has worked so hard to set the pace in the development of herbal medicine in Ghana, but now has to be subordinate and responsible to FDA. This mandate has been backed by law. Some felt that the Centre could have been given some concessions if it had positioned itself well in enacting the Act since it has influenced policy formulation on traditional medicine in various ways.

The Centre was solely responsible for analysing products for certification before other institutions came on board because of the numbers. Because of its influence, many believed that once a product passed the analysis test at the Centre, it was ready for sale to clients. But that is not the case since FDA will have to provide the clearance. Despite the role of the FDA, public perception still tends to give credence and acknowledgement to the Centre. For example, in the not too distant past,

advertisements of herbal drugs on radio and television in the local languages, particularly Akan, ended with the phrase: "Centre for Plant Medicine Research fuo agye atum", which translated as "certified by Centre for Plant Medicine Research." Reports indicated that it took a long struggle through education and publicity in getting the different roles played by the two institutions in the industry laid out. Even so, some participants still believed that the Centre was well-placed in handling all certification issues in herbal medicine without the involvement of the FDA.

To this effect, the FDA is described as a 'bully' since it refuses to register some of the Centre's products for the shortage of data, involving elaborate clinical trials as the case is with orthodox medicine. There have been instances where the FDA had to threaten the Centre with sanctions. For example, the FDA queried the Centre for a newspaper publication on 'Euro 500', the Centre's herbal drug for prostate enlargement. According to the FDA, it was a breach of regulation on the Centre's part since the product's registration process had not been completed.

However, according to the Centre, it published the article because every form of documentation needed for registering the product had been submitted to the FDA. Staff at the Centre did not understand why the registration was pending for several months. This issue generated mixed responses among participants at the Centre. While some viewed FDA as a partner, others saw the institution as usurping the authority of the Centre in controlling affairs in the industry. Sally had this to say about FDA:

> Someone will say the Centre is older than FDA, but an institution can't regulate itself. You need a different body to make the regulation so that there will not be biases. Because we are the premier institution in the development of herbal medicine, the FDA wants to make sure that we do things right. And as we do things right, we can help the other herbalists also to do things right. They act as both regulators and friends. They've been accommodating. And we have also been very helpful to them.

The view above was contrasted by Jannelle thus:

> We are responsible to the FDA. They expect elaborate clinical trials before registration is done. There is a problem with the Act. We failed to take control of herbal medicine certification and allowed FDA to take that from us, and they are bullying us. They refuse to register some of our products because we don't have enough data on the products. They want elaborate clinical trials in a particular setting which we can't afford. When it comes to certification, we do all the work, and they take and approve or disapprove. But when it comes to planting medicine, the Centre is the best place.

The interesting thing to note is that the Centre assumes the same position as any other producer of herbal medicine once it is into commercial production when it comes to regulation. As stated by Jannelle, the FDA expects elaborate clinical trials on some of their products which they cannot provide because some of the scientific standards are equally beyond the reach of the Centre. Hence, the tensions emerging from the interactions between the two state-owned institutions. The upshot from this is that practitioners then argue that if the Centre, with all its recourses and scientific knowledge, cannot meet these standards, how could they with limited scientific knowledge and laboratory equipment meet the standards?

Analysing these issues through Pherali's (2011) theoretical lens, this study establishes that even though the state has recognised science to develop traditional medicine, a whole state institution like the Centre cannot meet all the requirements for regulation. This indicates that the state needs to take another look at the existing policies on traditional medicine regulation and implement them appropriately instead of the wholesale implementation of biomedical standards that are partly inapplicable in the traditional context. Otherwise, scientific knowledge, in the context of traditional medicine, will remain theoretical while practitioners, including the Centre, continue to practice what they have always known through tradition.

## 6. 6 Conclusion

As the preceding discussions have shown, the Centre's influence in the development and practice of traditional medicine in Ghana cannot be underestimated despite the tensions and conflicts reflected in its activities with stakeholders. The institution has influenced the practice directly and remotely in different circumstances, making an unprecedented impact in the industry over the past four decades. Practitioners and clients of herbal medicine alike have shown the various ways in which the Centre's activities have enhanced confidence among the Ghanaian populace in the utilization of herbal medicine.

All the achievements notwithstanding, the Centre's history of being the first to institutionalise the practice of herbal medicine in Ghana and its over-reliance on science, as indicated by participants, shows how much it reflects the struggle between traditional healing knowledge and Western scientific knowledge in health care delivery. The controversial role of science in fueling conflict between traditional healers and the scientific community reveals the extent to which intercultural collaborations are essential to define the appropriate and scientific tools to be applied in traditional health care practices without inhibitions. Otherwise, the scientific knowledge imparted by the Centre, with its Western standards, will remain theoretical while healers continue to practice what they have always known as handed down by tradition.

While science has played a critical role in transforming traditional medicine, it cannot transform the latter completely; it should not claim superiority since both are knowledge forms rooted in different cultures that are historically unique and distinct. The social inequality engendered by science, which also reflects in the Centre's relationship with healers and its disadvantaged group of employees and the community members, indicates the need for restructuring to ensure a better relationship devoid of disgruntlement and conflicts. Given its mandate and the efforts exerted,

there is no doubt that the Centre will continue to play a crucial role in the development and practice of herbal medicine in Ghana for many years to come.

# CHAPTER SEVEN

# CONCLUSION

## 7.1 Introduction

Since the 1970s, Ghana has witnessed a kind of revival in the use of traditional medicine. Globally, the utilisation of traditional forms of health care is on the ascendancy (Falodun, 2010; E.K. Mpinga et al., 2013). This study, therefore, set out to demonstrate how the Centre for Plant Medicine Research located at Mampong – Akuapem in the Eastern region of Ghana contributed to traditional medicine practice by making it an essential component of national efforts to promote health care.

The purpose of this concluding chapter is to summarize the study's findings, draw some conclusions and give recommendations based on the findings. The chapter synthesises the components of the development trajectory of traditional medicine in Ghana: the establishment of a national traditional medicine Centre; the use of policy by the state as a tool to transform the phase of traditional medicine; and the influence of formal institutions on the various stakeholders in the traditional medicine industry.

## 7.2 Summary of Findings

This study set out to explore the contribution of the Centre to the development and practice of traditional medicine in Ghana. With this objective, the study was advanced through three research questions: What factors influenced the establishment of the Centre and its evolution? What have been the changing state policies on traditional medicine in Ghana? To what extent has the Centre influenced the development and practice of traditional medicine in Ghana? Participants were

drawn from the Centre, clients of traditional medicine, practitioners of traditional medicine, the Herbal Medicine Department at KNUST, FDA, TAM-D, TMPC and people of Mampong, to answer these research questions. The qualitative method of social research revealed the intricacies of traditional medicine development—constructionist grounded theory drove data collection and analysis. Purposive and snowball sampling methods were used to select participants, and the number of participants expanded through theoretical sampling as required by grounded theory. The study's findings were discussed in three chapters based on the research questions. Indeed, the findings have shown that the development of traditional medicine in Ghana is intertwined with the establishment and evolution of the Centre (see Chapter four).

The Centre was founded on the philosophy of 'Obi-Kyerɛ' (in Akan), which translates as 'someone teaches'. The founder, Dr Oku Ampofo – an orthodox trained medical practitioner – relied on traditional healers for knowledge to practice herbal medicine. Ampofo's 'Obi-Kyerɛ' filled the gap of the need for a national traditional medicine centre undergoing an institutional transformation in later years. As a result, all the policies on traditional medicine in the country have found expression through the Centre's activities. From establishing the first state-organised traditional healer's association (GPTHA), financing plant medicine research, and formulating traditional medicine policies, the Centre has been an active participant. The Centre's activities have led to significant transformations in the traditional mode of providing medicine in Ghana.

The Centre's state recognition was due to Dr Kwame Nkrumah's (1957-1966) commitment and Col. I. K. Acheampong (1972-1975). Since its establishment, the Centre has undergone several changes through links with institutions and agencies such as MOH, TAM-D, TMPC, FDA, GHAFTRAM and WHO. Such links have enabled the Centre to provide services to the general

public regarding the availability of herbal products, standardization, training, and many more, albeit criticisms of 'over scientification' which marginalizes practitioners.

Even though the policies provided the Centre and its stakeholders an opportunity to make a breakthrough in traditional medical practice, it was constrained in later years by a lack of resources. It had to commercialise its activities to generate funds internally. Although regulating traditional medicine is a legitimate concern, the state has failed to offer financial support to ensure the expected outcomes. Therefore, the study noted that government policies on traditional medicine only give credit to the sector through laboratory tests based on modern scientific standards. In this light, traditional healers appear to be compelled to accept and conform to the values of science espoused by policymakers. Consequently, some practitioners consider the infusion of modern scientific methods into traditional medicine as a threat to the survival of authentic practice.

The relationship between the Centre and traditional healers changed over time because of the Centre's commitment to scientific processes and procedures. It is limited to training programmes offered at the Centre for a fee without much collaboration between the two groups. This current relationship helps the Centre fulfil its mandate of encouraging the use of herbal medicine while practitioners acquaint themselves with the appropriate scientific procedures in their operations.

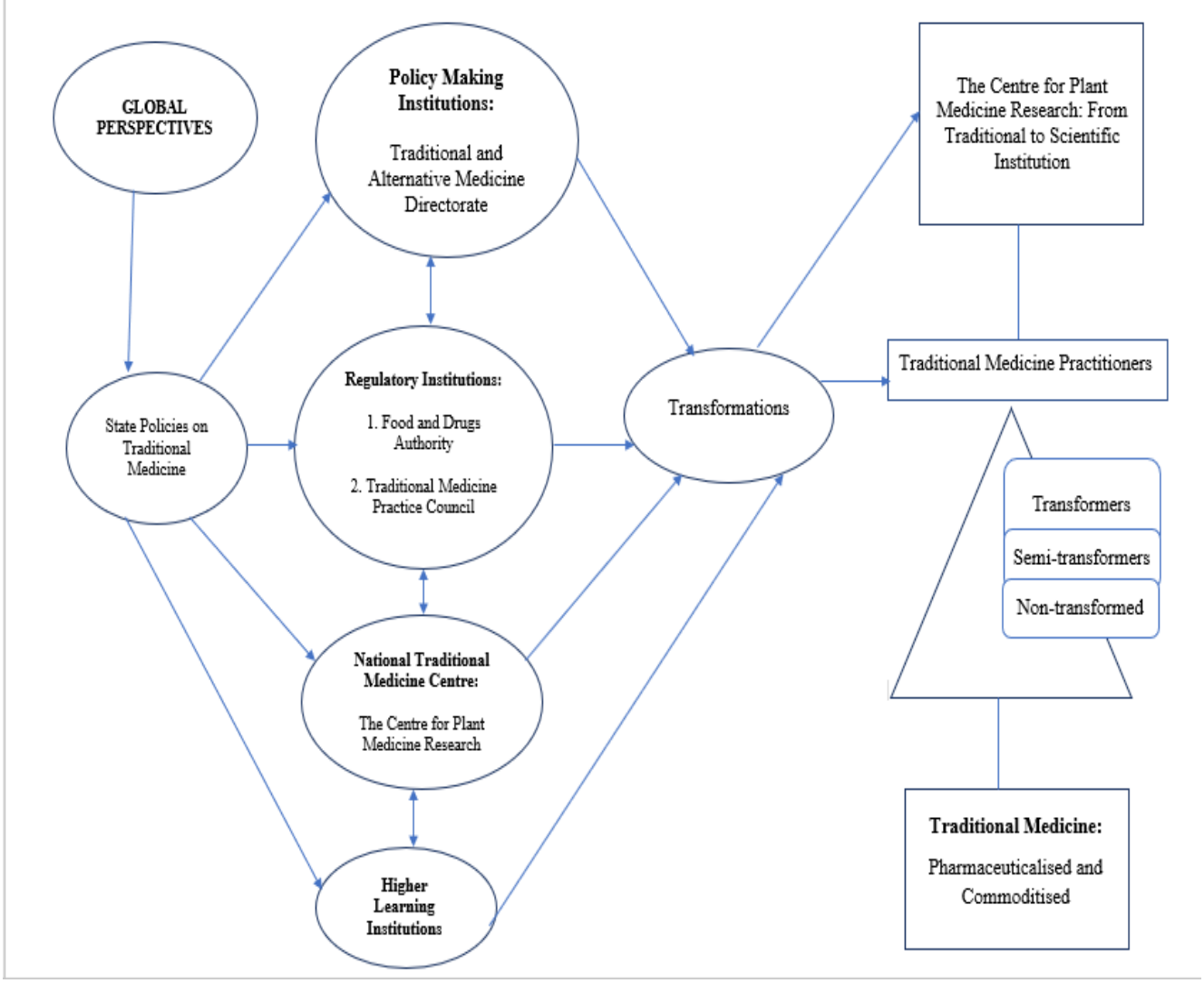
Therefore, the Centre has evolved from 'learner to teacher', from 'obi-kyerɛ to kyerɛ-obi' (in Akan). The Centre, which used to be the receiver in the obi-kyerɛ arrangement, is now the giving entity. This evolution, however, is appreciated in a mixed way by practitioners. As a result, there have been tensions and conflicts between the Centre and practitioners and other stakeholders. The

social inequality between the two groups, aggravated by the over-concentration of scientific ideas in product development, fuels these tensions and conflicts.

## 7.3 The Transformation of Traditional Medicine in Ghana

It was explained (in chapter three) that a social constructionist approach to research dwells on what is constructed by people and the processes by which these constructions are made relevant. Both the researcher and research participants interpret and construct the world. The term grounded theory refers both to the product of research and the analytical process that produces it. Consequently, this study began with inductive data collection and analysis techniques, generating a theoretical framework on the transformation of traditional medicine in Ghana. The conceptual framework illustrated in figure 7.1 below supports this study's major contribution to knowledge in the field of traditional medicine, particularly on the contribution of the state and its institutions to the development and practice of traditional medicine.

**FIGURE 7.1 TRANSFORMATIONS IN TRADITIONAL MEDICINE IN GHANA**




***Source: Author's analysis of field data, 2020***

The study established that state policy has been a significant driver of the current transformation in traditional medicine practice. These policies are put into four main institutional categories, as shown above. Policies are formulated at the top by TAM-D and implemented by the two central regulatory institutions, FDA and TMPC. The National Traditional Medicine Centre, which is the Centre, plays a crucial role in implementing all these policies, as the study has demonstrated.

Hence the conclusion that all state policies on traditional medicine find expression in the Centre's activities.

As shown in the diagram, the relationship between the state institutions appears hierarchical. Still, it can be described as associative in practice since each function with inputs from the others. Feedback from the regulatory institutions, the Centre, and the higher learning institutions inform the policies formulated by TAM-D. Meanwhile, as a significant stakeholder in the training of medical herbalists in higher institutions of learning and the FDA's testing and certification of herbal drugs, the Centre affects the two institutions significantly.

The Centre, therefore, has played the role of a forerunner in the transformation process of traditional medicine in Ghana. As the leading agent of change in the industry, the Centre has gone through change itself. It has evolved from 'learner to teacher' in applying traditional medical knowledge in the context of modern science and technology (from 'obi-kyerɛ to kyerɛ-obi'). Some practitioners have also transformed their practices through the centre's influence by adopting modern scientific processes in line with biomedical technology and practice.

The pyramid representing practitioners in the diagram depicts the reality on the ground, which is that the transformation has not occurred across-board. At the apex, consisting of the smallest number, are the *transformers*, practitioners who have fully transformed in the practice and production of herbal drugs. It was indicated that products of higher learning institutions, both locally and internationally, form the core of this category. The relatively significant number of practitioners who adopt science in suitable ways but do not allow a complete change in their practices are located in the middle ground of the pyramid and recognised as *semi-transformers.* They are trained in using hygienic methods to prepare the herbs for their clients without processing

them into pharmaceutical drugs. This way, they can retain some power and control associated with the practice, particularly in the diagnoses and prescription of treatment for their patients, which may go beyond the use of herbs.

Finally, the most significant number of practitioners at the broad base of the pyramid are the *non-transformed* whose practices maintain ties with tenets of the distant past. Their means of diagnosis and prescription are still traditional, and they maintain all the magico-religious components of traditional medicine with power and control over what they do. However, this categorisation of practitioners is for analytical purposes and represent ideal types. In actual practice, we find practitioners whose practices have elements of all the three categories described. For example, a practitioner may be duly registered by TMPC, have practice premises that are of the required standard and observe GMPs per the regulation of the FDA. Such practitioners could double as producers of certified herbal drugs and run OPD clinics where they are the consultants and prescribers of their herbal drugs. And also give out raw herbs to patients, adhere to the magico-religious components of the practice – treating clients holistically.

Consequently, traditional medicine's end product has been transformed into pharmaceutical drugs and commoditized – detached from its cultural values and provision moved from provider-specific locations to distributive outlets. The semi-transformers and the non-transformed still maintain that this development undermines the philosophical principles of traditional medical practice.

The literature has argued that the pharmaceuticalisation of traditional medicine leads to its commodification and separates the producer from the prescriber. This study adds to the literature by extending the argument. Thus, pharmaceuticalisation alienates traditional healers from their knowledge, strips them of power and control, and empowers the prescriber. The commoditization

of traditional medicine also alienates the source of the knowledge, which is the traditional healer, from the process of production and prescription.

For example, the Centre obtains ethnobotanical information from traditional healers. Further research ends up with a product that the healer who provided the information may not even be aware of its existence. Even if they became aware of such a product, they neither knew how it was produced nor would they know how and who would be the prescriber and the consumer. They get entirely alienated from the final product and its economic benefits.

The production of herbal medicine in Ghana no longer depends on the expertise of traditional healers. Often they are not able to meet the requirement for production. Owners of means of production in the urban centres enter into partnerships with the healers who remain the sources of knowledge for the production of herbal drugs but have nothing to do with the production processes and subsequent prescription. Some producers even acquire their knowledge in herbal medicine from the Centre without having direct contact with the traditional healers, the sources of the traditional medical knowledge in possession of the Centre.

Therefore, consistent with the social change model adopted for this study, it is concluded that traditional medicine practice in Ghana has seen significant change. However, embedded in the change are continuities with the distant past. Most practitioners still hold on to the cultural values attached to the practice and the belief that healing is not imbued in the chemical properties of plants but the hands of particular healers. Everything, in the end, leads to a discovery of the extent to which the Centre reflects the struggle between healing knowledge in herbal lore and Western hegemonic knowledge in health care delivery due to over ‘scientification’ in its activities. However, given its mandate and the efforts exerted, there is no doubt that the Centre will continue

to play a crucial role in the development and practice of traditional medicine in Ghana for many years to come.

## 7.4 Recommendations

1. With evidence from the field, this study recognizes the need for the successful documentation of traditional medical knowledge. In this regard, it is recommended that the MOH and relevant Departments and Agencies engage traditional healers and community members to map out strategies to ensure the optimum use of herbal products in Ghana's health delivery. Closely related to this is the need to recognize and appreciate the work of traditional medical practitioners at the national level. Such an intervention can reduce the discontentment and conflict in their relationship with the Centre and other scientists in medicinal plant research and product development.
2. Besides the national awards, the study also recommends an internal award scheme for individual traditional healers and local communities who make significant contributions to the Centre. The Centre's products could be named after some of the healers who contributed to developing them. The Centre could also practice the principles of community participation to ensure effective implementation of its project objectives and enhance understanding between the Centre and local communities. More will be achieved if more traditional healers are brought on board the Centre's plan and their views accommodated, as the founder did from the beginning. Product development should be approached as teamwork with scientists, sociologists, traditional healers, and community members working together to give it public rather than a professional outlook.

3. The Centre itself is not able to meet all the scientific standards for regulation. This indicates that the state needs to take another look at the existing policies on traditional medicine regulation and implement them appropriately instead of a wholesale implementation of biomedical standards, parts of which are inapposite to the traditional context. This study recommends policy reforms based on a deeper understanding of the correlation between modern science and traditional medicine. Only aspects of science that are useful and apposite to traditional medicine should be applied.
4. Also, while traditional medicine plays a significant role in mainstream health care provision, the cost involved in getting it pharmaceuticalised is increasingly making it inaccessible to sections of the Ghanaian society, as this study has revealed. Therefore, the study highly recommends that the state speed up the process that will include traditional herbal drugs on the list of essential medicines to get them covered by NHIS.
5. Finally, the study recommends that the state take the appropriate steps to get the Centre well-resourced to achieve its mandate. As it stands now, some stakeholders have lost faith in the institution because they believe it has shifted from its original mandate because of its engagement in commercial activities.

## 7.5 Limitations of the Study

Even though there has been a proliferation of private herbal medicine Centres in Ghana, the study only concentrated on the Centre, a state establishment. Admittedly, data obtained would have been richer if some of these private facilities which learnt from the Centre were included in the study. This would have allowed a more nuanced analysis of the contribution of herbal medicine Centres to the development and practice of traditional medicine in Ghana since the private ones have also

influenced the practice in quite significant ways in recent times. Also, the question on the Centre's influence would have required inputs from all the sixteen regions of the country since it is a state establishment to provide a more detailed analysis. However, the study gathered data from only five regions – Greater Accra, Eastern, Northern, Savanah, and Upper West regions due to resource constraints. Therefore, there is room for the study to be extended in future research.

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# APPENDIX 1:

# ETHICAL CLEARANCE LETTER

UNIVERSITY OF GHANA
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)
*P. O. Box LG 74, Legon, Accra, Ghana*

My Ref. No.....

31st January 2019

Mrs. Diana Amoni Ntewusu
Department of Sociology
University of Ghana
P O Box LG65
Legon

Dear Mrs. Ntewusu,

**ECH:041/18-19: The Centre for Plant Medicine Research and the Dynamics of Herbal Medicine in Ghana**

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

| | |
|---|---|
| Expiry Date: | 31/01/20 |
| On Agenda for: | Initial Submission |
| Date of Submission: | 19/11/18 |
| ECH Action: | Approved |
| Reporting: | Bi-annually |

UG./ISSER/ECH VALID UNTIL 31 JAN 2020 APPROVED DOCUMENT

Please accept my congratulations.

Yours Sincerely,

Prof. C. Charles Mate-Kole
ECH Vice Chair

Cc: Prof. Kwadjo Senah, Department of Sociology
Prof. Steve Tonah, Department of Sociology

Tel: +233-303933866 Email: ech@ug.edu.gh

# APPENDIX 2:

## INTERVIEW GUIDE FOR EMPLOYEES OF THE CENTRE

SECTION A: WORK EXPERIENCE

1. How long have you been working here?
2. To which departments do you belong?
3. What is your job specification in the department?
4. Do your duties cut across the departments?
5. What is the main work done in your department?
6. Did you receive any special training to work here?

SECTION B: GENERAL QUESTIONS

1. When was the Centre established, and what was the purpose of its establishment?
2. How has the Centre evolved from inception to date (its organization and development)?
3. What does it mean for the Centre to be an agency of the Ministry of Health?
4. What are the departments and the number of staff employed to work there?
5. What is the driving force behind the Centre's activities and successes chalked so far?
6. Who are the major stakeholders of this Centre?
7. How was the knowledge used at the Centre acquired?
8. Does the Centre collaborate with traditional herbalists in performing its functions?
9. How is this collaboration initiated? Is it done through the associations or individually from the communities?
10. What is the nature of this collaboration?
11. Is it still valuable for the Centre, given how far the Centre has come?
12. What is the nature of the plant research undertaken by the Centre?
13. Which are the medicinal plants used mainly by the Centre in the production of herbal remedies?
14. How are the herbal remedies prepared, and which parts of the plants are used for the preparation?
15. What are health conditions cured with the herbal remedies?
16. Are the recipes for the products documented and information made available when needed, or they are also shrouded in secrecy as has been the tradition with the healers?
17. Do you have patent rights to the medicines produced?
18. What is the relationship between the Centre and industry?
19. What is the nature of plant research into the production of plant-based alcoholic beverages?
20. What is the relationship between the Centre and the FDB?
21. How was the clinic established?
22. What is the nature of the clinical activities undertaken here?
23. What are the cases handled by the clinic?
24. Who are the medical practitioners at the clinic? Are they purely herbal doctors, or some orthodox doctors are also allowed to practice?

25. At what level do conventional medical practices come into play with the traditional at the clinic, given the clinic's current modus operandi?
26. What is the impact of the traditional system on the conventional system of medical practice?
27. What does it mean for the Centre to be a Collaborating Centre for Traditional Medicine with WHO?
28. What opportunities are available at the Centre for those who want to learn herbal medicine?

SECTION B: CLINICAL STAFF

1. What is your category of medical practice?
2. How long have you provided service in this facility?
3. How and where did you acquire your training?
4. Have you worked in that capacity in any other facility?
5. What is the difference between this facility and other herbal facilities?
6. How efficacious are the plant medicines being produced and prescribed here?
7. What class of people seeks healthcare here?
8. What are the cases most presented here?
9. What are the details of healthcare delivery in this facility?
10. How different/similar are your services from/to conventional health facilities?
11. From your perspective, do you think your clients repose absolute faith in herbal medicine, or do they take it as complementary to conventional medicine?
12. Are your clients consistently pursuing healthcare in this facility, or do they mostly walk in and not return?
13. How important is herbal medicine today?
14. What advice do you have for those are still sceptical about herbal medicine?
15. Do you sometimes refer clients to other herbal clinics and conventional facilities?

# APPENDIX 3:

## INTERVIEW GUIDE FOR TRADITIONAL MEDICINE PRACTITIONERS

SECTION A: GENERAL QUESTIONS

1. How long have you been in this practice?
2. How did you acquire knowledge in traditional medicine?
3. Where do you practice your medicine?
4. What is traditional medicine?
5. What is your understanding of healing in the context of traditional medicine?
6. What are some of the philosophical principles of traditional healing practices?
7. What are some of the methods of traditional healing?
8. What is the significant difference between traditional medicine and conventional medicine?
9. Who are your clients?
10. Do all your clients get solutions to their health problems?
11. Do you belong to any association of traditional healers?
12. What kind of relationship exists between you and the Centre?
13. Do you sometimes refer your clients to the Centre/hospital?
14. How similar/different is your method of operation in herbal medicine to/from the Centre's own?
15. Are you offered any training at the Centre to improve upon your practice?
16. What is your perception of the Centre's activities?
17. How has your relationship with the Centre affected your practice of herbal medicine?
18. Do you encounter any challenges in performing your functions as a healer?

SECTION B: CLINICAL STAFF

1. What category of medical practice do you belong to?
2. How long have you provided service in this facility?
3. How and where did you acquire your training?
4. Have you worked in that capacity in any other facility?
5. What is the difference between this facility and other herbal facilities?

6. How efficacious are the plant medicines being produced and prescribed here?
7. What class of people seek healthcare here?
8. What are the cases most presented here?
9. What are the details of healthcare delivery in this facility?
10. How different/similar are your services from/to conventional health facilities?
11. From your perspective, do you think your clients repose absolute faith in herbal medicine, or do they take it as complementary to conventional medicine?
12. Are your clients consistently pursuing healthcare in this facility, or do they mostly walk in and not return?
13. How important is herbal medicine today?
14. What advice do you have for those are still sceptical about herbal medicine?
15. Do you sometimes refer clients to other herbal clinics and conventional facilities?

# APPENDIX 4:

## INTERVIEW GUIDE FOR CLIENTS OF TRADITIONAL MEDICINE

1. What is traditional medicine?
2. For how long have you been visiting this clinic?
3. How did you know about this herbal clinic?
4. How did you feel the first time you visited this clinic?
5. Do other members of your household also come here?
6. What are the conditions for which you seek health care at this herbal clinic?
7. Are the conditions chronic or acute?
8. Are herbal medicines effective?
9. What reasons account for your choice of traditional medicine and this clinic in seeking health care?
10. What is your perception of this clinic?
11. How good is their service delivery?
12. Do you experience any side effects of the herbal products you are given at this clinic?
13. Given your experience here, will you recommend this clinic to other family and friends?
14. How different is herbal medicine from biomedicine, in your opinion?

# APPENDIX 5:

## INTERVIEW GUIDE FOR THE FDA – TRADITIONAL MEDICINE UNIT

1. When was it established?
2. What is the mandate of this unit?
3. How does this feed into the general objective of the FDA?
4. What are the current regulations on traditional medicine in Ghana?
5. Who sets the standards?
6. What is the relationship between the FDA and the Centre for Plant Medicine Research and other stakeholders?
7. Are there any difficulties with the current structure?
8. Are there times that your interest conflicts in dealing with CPMR?
9. How will you assess the CPMR given its current mode of operation and how far it has come in terms of the purpose for its establishment?
10. How often are your fees reviewed?
11. Have there been occasions when further clinical trials have been demanded of foreign herbal medicines?
12. Do you often have reasons to suspend, withdraw, or cancel a product registration?
13. If so, have there been appeals?
14. 'One of the grounds for suspension, withdrawal or cancellation of a product's registration is when the circumstances under which it was registered no longer exists.' What does this mean?
15. Have you had reasons to consult with other bodies or experts with knowledge in traditional medicine to make decisions on particular products?
16. Registration is renewable after three years. How is this ensured?
17. How do you handle problems posed to the safe use of herbs by agricultural practices, adulteration, and packaging?
18. What support is given to herbalists to ensure compliance?
19. Is there anything like intellectual property rights protection in herbal medicine?
20. What is the future of herbal medicine in Ghana?

# APPENDIX 6:

## INTERVIEW GUIDE FOR TAMD AND TMPC

1. What are the various state policies we have had on TM over the years?
2. What are the structures in place to ensure that regulations are complied with?
3. What are the support systems available for practitioners?
4. Can we say that we have sufficient knowledge of the nature and direction of the transformations in the practice of TM as a nation?
5. What are the elements being incorporated from other systems, and why?
6. How effective has been the process of registering all TMPs in the country?
7. How many are registered at the moment?
8. How many professional associations of these practitioners do we have in Ghana?
9. How does the council monitor the activities of these associations?
10. How often is the training given to the TMPs from your outfit?
11. Are you able to assess their performance after training?
12. How do the council's activities differ from the activities of TAMD and FDA by legal mandate? Any conflicts?
13. How far have we come as far as the integration of TM into the mainstream health care system is concerned?
14. Has there been any progress in getting allopathic medical practitioners to acquire some knowledge in TMP?
15. Has collaboration between the two practitioners been effective?
16. What is the meaning of 'technology transfer and commercialisation of best products and practices, as stated in the policy guidelines?
17. Can we have Intellectual property rights protection in TM?
18. How is the government's commitment to research and product development in TM?
19. What are the measures to encourage practitioners to cultivate the plants they use in their practice?
20. Has it been possible to register large scale collectors of medicinal plants?
21. Is there a testing Centre in the North yet?

# APPENDIX 7:

## INTERVIEW GUIDE, DEPARTMENT OF HERBAL MEDICINE, KNUST

1. When was the department established?
2. Who was the first head of the department?
3. What was the original name of the department?
4. When was research into plant medicine initiated in the department?
5. Who were the key personalities involved?
6. Is it on record when the late Dr Oku Ampofo started collaborating with the department in plant medicine research?
7. What were his significant contributions?
8. Who were the key personalities at that time?
9. How did the department support Dr Ampofo in establishing the Centre for Plant Medicine Research at Mampong - Akuapem?
10. How does the department still collaborate with the Centre in the development of herbal medicine in Ghana?
11. What is the agreement between the Centre and the department of Herbal Medicine in the training of medical herbalists?
12. What goes into the training of herbalists?
13. How has this programme helped in the medical integration of herbal medicine into mainstream health care in Ghana?
14. Is the department involved in the analyses of herbal products for producers?
15. Are there any ways in which the department collaborates with traditional medicine practitioners?
16. What are the challenges and the way forward?